Punjab, 2008-2020: Accelerating its rate of GDP growth and modernizing its economy and society

by
Shahid Javed Burki

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Institute of Public Policy
Beaconhouse National University
Lahore

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Growth has been granted when the economy has provided institutional incentives to undertake productivity–raising activities…. Decline has resulted from disincentives to engage in productive activity as a consequence of centralized control of the economy and monopoly privileges. Economic growth has been the exception; stagnation and decline have been the rule, reflecting persistent tendency toward failure in human organization.

– Douglass C. North, *Understanding the Process of Economic Change*, Princeton, N.J., Princeton University Press, 2005.

Institute of Public Policy
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Institutional backing is absolutely essential to policy makers of today, to guide their actions in promoting development and peace. These are times of change and challenge. There is a need for policy makers to base the policies on sound analytical work. Therefore, The Beaconhouse National University established the Institute of Public Policy as an independent, private sector think tank for research on economic, social, political and foreign policy issues.

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PREFACE

The genesis of this study lies in a lecture I was invited to give at Lahore by the Punjab Planning and Development Department. This was to inaugurate the series the government was launching. In the lecture, delivered in April 2007, I suggested that the provincial government should raise its sights beyond those indicated in the two economic reports published by it, one in 2005 and the other in 2007. The implied rate of growth in the provincial gross domestic product in these documents was around 6.5 percent a year upto the year 2020. I suggested that it was feasible to aim for a much higher rate of increase, perhaps averaging 8 percent a year.

My lecture was well attended and well received. Senior government officials, the academia and the press were present. The provincial government suggested that it would be willing to provide a financial grant if I undertook to develop a detailed policy framework that would make possible the transformation that I believed was possible. I agreed provided the government invited the Beaconhouse National University's Institute of Public Policy to take the responsibility for the study. The IPP was established a few months earlier to create capacity in the private sector for undertaking public policy work. The IPP's creation was the consequence of a series of conversations between Sartaj Aziz and myself. The institution began its life with the Punjab Study and a companion study on the performance of the system of local government that was also financed by the P&D Department. It has gone on to do additional work. In May 2008, it launched its first annual report, titled *State of the Economy: Challenges and Opportunities.*

The approach I have adopted in this study is different in several different respects from those laid out in the *Punjab Economic Report 2005* prepared by the World Bank and the *Punjab Economic Report 2007* prepared by the Planning and Development Department. I might mention here some of the main differences in this study and those in the two cited reports. **One**, I have opted for a higher rate of growth in the provincial product than was proposed in the two reports. I have worked with a scenario that produces an "S" shaped growth path that has the provincial GDP increasing initially at about 6 per cent a year and then picking up to reach 8.2 per cent growth at which it stabilizes in later years. **Two**, I have determined what kind of structural change this growth path will produce in the economy and what will be the impact on the incidence of poverty and regional development. I believe that the recommended strategy will reduce the incidence of poverty to below 10 per cent of the population. I estimate that the Punjab's population will increase to 113 million by 2020 but the number of poor will decline to 11 million. **Three**, I define a different role for the state than was implicit in the previous reports. I believe that the provincial government – in particular its Planning and Development Department – should develop the capacity to identify the "winners" the state will support in the various sectors that will lead the economy and take it towards accelerated growth. Having identified the winners, the state should play the role of a facilitator leaving the private sector to develop the lines of products in the chosen sectors. **Four**, I have focused a great deal of attention on the development of institutions to support the recommended effort. In this context, Box 1 in Part Eight of the report identifies a dozen new or restructured institutions on which the government should work. **Five** – one of the more ambitious moves I am recommending in the study – relates to the

economic and financial relations between the provinces and the federal government. I have suggested a prominent role for the provinces in the design of trade policy. I was a bit surprised that both the 2005 and 2007 reports totally ignored trade as a determinant of growth. I raised this as an issue with the World Bank team that prepared the 2005 report as well as the senior officials of the Planning and Development Department. I was told that was not done as, under the constitution, trade is a federal subject. While that is indeed the case, that should not preclude the provinces from taking part in the design of trade policy. I believe that trade – particularly with China, India and the Middle East – could play an important role in the evolution and development of the provincial economy. Trade as a proportion of provincial GDP was much higher in 1947 than is the case six decades later. The Council of Common Interests could be the institutional arrangement that would allow the provinces to make contributions to the development of trade policy. I am also suggesting a gradually increasing role for the provinces in the energy sector which would encourage competition among them and allow those that have the resources for generating electricity to be adequately compensated. **Six,** I recommend much greater provincial autonomy in economic and financial matters, I am also suggesting a much greater devolution of authority to the institutions of local government. I believe that the province's larger cities could play an important part in mobilizing resources for their development than they do at this time. When I was directing the World Bank's operations in Latin America, we developed a program to have the creditworthy cities in the continent to go to the markets for mobilizing resources for development. The program was successful. Something like that could be attempted in the Punjab. **Seven**, I believe that urbanization and urban development have been largely neglected in the design of provincial economic strategy in the past. This is a mistake. I am suggesting that the province should work on not one but four urban policies – for the five large cities, for the areas on the periphery of these cities, for the middle-sized cities and for small towns. Since the economic and social dynamics are very different in these four areas, urban policies should reflect these fully. **Eight**, I am of the view that the province should totally overhaul the regulatory regimes it operates. At this point the system does more for the regulators – they collect "rents" from the enterprises they visit – then help the consumers and the workers they are meant to protect. This point was emphasized by the 2005 report but was not made a part of the overall strategy. **Nine**, I have always believed that economic policymaking should be based on a good understanding of history and the interaction between politics and economics. This was not done in the past but is an important part of my study. Pakistan and the Punjab have been politically and socially transformed over the last six decades by a series of events that are unique to our part of the world. Demographic change and population movements have played very important roles in this change. These need to be analysed, understood and reflected in the making of public policy. **Ten**, I also believe that the policy makers in both Islamabad and Lahore need to understand the changes taking place in the global economy – in the structures of industry's, finance and trade. Only by appreciating these will the province (and the country) get better integrated into the global economic system. **Eleven**, there is the important issue of developing the province's large human resource. Its population is approaching the 100 million mark; some 50 million people are below the age of 18. Properly trained and educated, they could become a tremendous economic asset. By neglecting their development, we will only push them into the ranks of the disaffected. **Twelve**, in developing the provinces rich human

resource, it must pay particular attention to women – their education, their empowerment and their more meaningful participation in the province's economic life.

I hope the government will find the report useful in designing its policies for the development of the province. The menu of options I have presented in Box 2 in Part Eight may be too rich to be cited upon quickly. In that case it might be appropriate to prioritize the proposed actions and adopt a timeline for their implementation.

Finally a few acknowledgements I have benefited a great deal from many discussions on many subjects while preparing this study. I would like to recognize in particular the insights received from my conversations with (mentioned in alphabetical order) Syed Babar Ali, Sartaj Aziz, Ijaz Butt, Shahid Amjad Chaudhry, Aisha Ghaus-Pasha, Navid Hamid, Shahid Hamid, Akmal Hussain, Jahangir Karamat, Shahid Kardar, Ijaz Nabi, Hafiz Ahmed Pasha, Tariq Saigol and A Z K Shedil, all in Lahore and several of my former colleagues at the World Bank including Pervez Hasan, Zubair Iqbal, Khalid Ikram and Shahid Yusuf. I have also presented some of the themes developed in this study in the talks I have given in the past year at various think tanks in Washington, in particular the Center for Strategic and International Studies (CSIS), the Council for Foreign Relations, and the Woodrow Wilson Center for Scholars. I have also had the benefit of conversations with the staffs of the Asian Development Bank, UK's, Department for International Development, US AID and the World Bank.

My particular thanks are to Chief Minister Shahbaz Sharif who, on September 11, 2008 chaired a three-hour long discussion of the ideas presented in the study which led to some significant changes and additions to the report and to Suleman Ghani, former Chairman of Planning and Development Department, who initiated the idea of the study and supported it during his tenure.

Also, I would like to thank the Government Departments for their comments. I interacted with them during the preparation of this study. They have also sent in their written comments which are reflected in this revised draft.

A number of people in the IPP staff helped me with the study. I would like to thank Muhammad Imran for help with data and Muhammad Rizwanullah Khan with formatting and computational work. Without Rizwan's untiring efforts, the study would not have acquired the shape in which it is being presented.

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September 18, 2008

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CONTENTS

LIST OF TABLES AND BOXES

ACRONYMS

AEDB	Alternative Energy Development Board
CCI	Council of Common Interests
DC	Deputy Commissioner
DFID	Department of International Development
DISCOs	District Companies
FAO	Food and Agriculture Organization
FATA	Federally Administered Tribal Areas
FESCO	Faisalabad Electric Supply Company
FY	Fiscal Year
GDP	Gross Domestic Product
GEPCO	Gujranwala Electric Power Company
GWh	Giga Walt hours
HESCO	Hyderabad Electric Supply Co.
HP	Horse Power
ICS	Indian Civil Service
IDB	International Development Bank
IEA	International Energy Agency
IESCO	Islamabad Electric Supply Company
IFI	International Finance Institute
IIE	Institute of International Economics
IMF	International Monetary Fund
IPPs	Independent Power Producers
IPP	Institute of Public Policy
IT	Information Technology
KANUP	Karachi Nuclear Plant
KESC	Karachi Electricity Supply Company
KG	Kilo Gram
LESCO	Lahore Electric Supply Company
LPG	Liquefied Petroleum Gas
MDGs	Millennium Development Goals
MFA	Muth Fiber Agreement
MPECO	Multan Electric Power Company
MW	Mega Watt
NEPRA	National Electric Power Regulatory Authority
NFC	National Finance Commission
NTDC	National Transmission and Dispatch Company

NWFP	North West Frontier Province
OGDC	Oil and Gas Development Corporation
OGRA	Oil and Gas Regulatory Authority
OPEC	Oil Producing and Exporting Countries
PAEC	Pakistan Atomic Energy Commission
PAEC	Pakistan Atomic Energy Commission
PCS	Provincial Civil Service
PEPCO	Pakistan Electric Power Company
PER	Pakistan Economic Review
PESCO	Pakistan Electric Supply Corporation
PGDP	Pakistan Growth and Development Paper
PLTC	Pakistan Telecommunication Ltd.
PSO	Pakistan State Oil
PTDC	Punjab Tourist Development Corporation
QESCO	Quetta Electric Supply Company
SAFTA	South Asia Free Trade Area
SAP	Social Action Program
SCARP	Soil Conservation and Reclamation Program
SCARP	Salinity Control and Reclamation Program
SGEPL	Sui Gas Pipeline Ltd.
SMEDA	Small and Medium Enterprises Development Authority
SNGPL	Sui Northern Gas Pipeline Ltd.
TDCP	Tourism Development Corporation of Punjab
TFP	Total Factor Productivity
WAPDA	Water and Power Development Authority

PART ONE

EXECUTIVE SUMMARY

This study has eight parts. The first is an executive summary of the main conclusions reached in the report. The second part sets the stage for the analytical work that follows, describing the Punjab province's inheritance from the colonial era and how the partition of British India politically disadvantaged the province for several decades. However, over the last couple of decades, the province gained its political footing and is now in a position to plan for sustained economic growth. The third part provides a brief overview of the economic and social situation in the Punjab province in 2007-08. It builds a base line over which change will occur if the strategy developed in the report were to be adopted by the government. The fourth part presents four growth scenarios the province could follow, settling for the one that will produce a rate of increase in the provincial gross domestic product averaging 8 percent a year in the twelve year period between 2008 and 2020. The fifth part discusses the sectors that need the government's attention and the policies the state should adopt in order to maximize the contributions they could make to the development of the provincial economy. The sixth part discusses some of the non-sectoral policies the government should adopt to achieve the goals laid out in the report. The seventh parts analyses the current energy crisis and how, if not properly addressed, it could constrain the province's development. The eighth and final part presents a detailed policy matrix for the government to pursue in order to accelerate the rate of economic growth and social change. It also suggests some institutional changes in the province's management infrastructure.

The report develops an argument, a strategy, and a detailed policy framework based on a number of assumptions. The most important assumption concerns the rate of growth in the provincial gross domestic product, PGDP. We suggest that with an appropriate mix in public policies, Punjab can accelerate its PSDP rate of growth to an average of 8 per cent a year, beginning with about 6 per cent increase in the current year and ending with 8.2 per cent growth in 2020. We envisage an "S" shaped growth curve for the province, starting at a relatively modest level because of the economic difficulties through which the country (and the province) is currently passing. The rate of growth should pick up after the economy has been stabilized and then accelerate quickly, finally settling down at a rate of over 8 per cent a year. If that were to happen the Punjab will be one of the more rapidly growing economies of Asia. It would, in other words, finally achieve its considerable potential.

We propose what development economists have begun to call "inclusive growth", as the preferred growth strategy for the province. "Inclusive growth" means that the increase in the national and provincial products should result from the productive

deployment of the human resource. Labor for most developing countries – including Pakistan and within Pakistan, the province of the Punjab – is by far the most important factor of production. Developing the human resource and putting it to use for the economy not only increases the rate of economic growth. It also helps to reduce the incidence of poverty, narrow the personal income gap and spread development more evenly across the country and the province.

The strategy we propose in this report will have a very significant impact on the level of poverty. If the policies we recommend are adopted, the institutional changes we suggest are made, and relations between the provinces and the federal government are reconfigured, the level of poverty by 2020 would reduce to less than 10 per cent of the population. By 2020 we expect the population to increase to 113 million from the present 91 million. If the present incidence of poverty were to remain unchanged, Punjab in 2020 would have 31 million people living in abject poverty. We suggest that there number could decline to 11 million with the adoption of the strategy proposed in this study. In other words, some 20 million people could migrate from below the poverty to above the poverty line in about a dozen years. This would be one of the more remarkable transformations in the developing world. We believe that such a transformation is possible.

With rapid growth made possible by increased activity in the areas in which the province has comparative advantage and in which it has resources, both human and physical the province would not only climb on to a high growth trajectory and sustain it over time – something it was not able to do in the past – it could also become an engine of growth and development for the rest of the country. None of this would happen, of course, without the adoption of the right set of policies by those who are now in charge of the administration in Lahore.

Some attempts were made in the past to accelerate the Punjab's economic growth. In 2005, the then Chief Minister of the province, issued a "vision statement" outlining some of the goals his administration was intending to follow. It saw a sustained rate of growth of 6 per cent a year in the 15 year period between 2005 and 2020 as feasible and appropriate for the province[1]. The government then turned to the World Bank to produce a comprehensive economic report on the province, keeping in view the goals that were set out in the "vision statement"[2]. The Bank took a careful look at the state of the provincial economy and proposed a program of policy reform that would ensure a rate of growth of between 6 and 7 per cent a year. The Bank's proposed strategy "rested on five pillars: (1) improving governance: (ii) reforming the

[1] Chief of Minister of Punjab, *Vision Statement*, Planning and Development Department, Government of Punjab, 2005.

[2] The report was published by the Planning and Development Department, Government of Punjab as *Punjab Economic Report*, 2005, Lahore, 2005.

fiscal and financial management system; (iii) creating a more supportive environment for private sector led growth; (iv) improving the delivery of public services; and (v) addressing the provincial economy's vulnerability to shocks."[3] Having set down these broad principles the report went on to prescribe some macroeconomic targets. "If the objective of the government is to move towards 'full employment', which as in other countries, may be defined as being consistent with unemployment of 5 per cent because of frictional reasons, and other such factors, then the Punjab will have to create about one million new additional employment opportunities (including self-employment) a year". The report estimated the size of the labor force in 2001-02 at 27 million, growing at the rate of 3 per cent a year. In other worlds, more than 0.8 million people were entering the workforce every year.

The World Bank estimated the employment elasticity at 0.55 which meant that for one per cent increase in the provincial GDP, the rate of employment would increase by 0.55 per cent. "If the same relationship holds in the future, the GDP of Punjab will have to grow at 6.2 per cent a year in real terms. Since the government's aim is presumably also to significantly reduce underemployment, a target GDP growth rate of 7 per cent a year would not be unreasonable". These then were the broad parameters to be used by the provincial government for planning for the future.

The Planning and Development Department updated the 2005 report by publishing another document in 2007 which maintained the macroeconomic objectives of the earlier report but filled in some of the analytical and policy gaps. It emphasized in particular the greater use of the sector of agriculture to drive the provincial economy. However, it argued – correctly, we believe – that as some of the physical limits to growth had been reached, future increases in output of agriculture will mostly come from increases in land and labor productivity. The physical limits were identified as land and water. The report suggested that there was not much land available that could be put under the plough and there were now serious constraints on the availability of water for irrigation. The only way to increase output and agricultural incomes was to put emphasis on improving research and development as an important component of the government's growth strategy[4].

The approach we adopt in this report is different from those articulated in the documents cited above. There were several shortcomings in these reports. Without attempting to offer a detailed critique of these documents we will mention three that are particularly relevant for the current exercise. One, the reports used a static approach in terms of linking employment with growth; we believe that with the right

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[3] *Ibid.*, p. 7

[4] Planning and Development Department, Government of Punjab, *Punjab Economic Report, 2007,* Lahore 2007.

choice of policies it should be possible to obtain a higher employment elasticity than the O.55 assumed in the 2005 report perhaps as high as 0.65. This would happen by changing the structure of growth, with greater emphasis given to labor intensive activities. Two, it is surprising that the reports completely left out the impact of international trade on growth and the levels of employment. Trade was not introduced as policy variable since it is a federal subject and, therefore, beyond the reach of the policymakers in the province. We propose, instead, that the provinces – not only the Punjab but all other components of the federation – should seek a much more active role in the design of trade policy. Three, the reports, while recognizing that the government had a critical role to play in a number of areas, did not identify areas of serious analytical work for determining the course and direction of public policy.

We believe that the choice of policies should be dictated by the recognition of the province's endowments, which are considerable; by an awareness of its geographic location, which gives it strategic advantage; and by an understanding and appreciation of its history, which explains why the province has developed the way it did over the last 60 years. Pakistan does a poor job of teaching history and the Punjab, the country's largest province, is no different in this respect. For this reason we begin this report by noting some historical trends that will provide us with the setting to develop a plan for the future economic and social development of the province, the largest in Pakistan in terms of population as well as its share in national product.

History: We will be selective in choosing the subjects for attention from the province's rich history. We will begin by discussing the province's inheritance, focusing on the development of an extensive irrigation network by the province's colonial masters. Elaborate networks of roads and railways were also built to connect the countryside with the many market towns and the market town with the food deficit areas of British India.

Economic development was not the motive behind the interest the British took in developing agriculture in the Punjab. Colonial administrations in general were not concerned with the economic welfare of the citizenry over which they ruled. The interpretations of some revisionist historians notwithstanding, the British in India were no exception to this rule[5].Their interest in the Punjab was driven by the suffering that was being caused in the northeastern part of their Indian domain. Millions of people had died from famine in these provinces, producing a serious security problem for the colonial administration. By investing in developing an

[5] Niall Ferguson, the British historian now based in the United States, is one of the more prominent members of this class of revisionist economic historians. See his *Empire: How Britain Made the Modern World,* London, Allen Lane, 2003 as an example of this type of scholarship.

extensive irrigation system in the Punjab, the government was able to generate large amounts of food grain surplus to the needs of the province. The British also built equally extensive networks of roads and railways to carry the surplus farm produce to the adjacent as well as distant markets. Not only that, the British also gave the province a system of maintaining land records and settling land-related disputes; of using the land records to collect revenues for the government so that the people paid back to the government what it had spent to build the system of canals, roads and railways; of providing basic social services to the people with the help of a decentralized system of governance; and of maintaining law and order in the countryside as well as in towns and cities.

This was a rich inheritance. On these foundations an independent Pakistan could have built a vibrant economy in the Punjab focused on agriculture, agro-processing, and trade in agricultural commodities. This did not happen for the simple reason that politics intervened. The partition of 1947 brought some unexpected political forces to the fore of the policymaking process. These were dominated by the members of the refugee community that arrived from India. It took two decades for the country to resolve the conflict that ensued between the "outsiders" and the "insiders"[6]. It took another two decades before the Punjab was able to develop a leadership that was more representative of the social and economic make up of the province. This has happened and the province is now finally set for moving forward. The return of democracy to the country and the province has created a framework which should allow greater interaction between the policymakers and the citizenry. This, as development economists now recognize, is an important ingredient of economic success.

In order to move forward, Pakistan's leadership will have to grant greater authority to the provinces and for the provinces to allow larger flow of responsibility to the district and tehsil governments. That the country has run a more centralized system of governance than granted by the constitution of 1973 was mostly because of the domination of the military for most of the period since the adoption of the constitution. The military's command and control structure does not permit much decentralization of authority. Allowing greater decentralization will not only help with the development of the province it will also produce checks and balances that the country has lacked ever since it gained independence. Before moving forward the leadership will have to manage the crisis the country is currently faced with.

[6] I traced this conflict between what I called the "outsiders" who came in as refugees from India, 8 million of them, replacing the 6 million Hindus and Sikhs who left in the opposite direction in my first book on Pakistan. See Shahid Javed Burki, *Pakistan Under Bhutto, 1971-77*, London, Macmillan, 1980.

Yet another economic crisis: Once again Pakistan is faced with a serious economic problem, not for the first time in its roller-coaster economic history[7]. Its intensity, perhaps, is greater than any the country has faced in its turbulent economic history[8]. Finding a way out of the present difficulties must happen while the transfer of political power from the military is being completed. The civilian government's failure to correct the course of the economy and to put it on the path that will deliver high rates of economic growth and income increases for the underprivileged segments of the country will put into jeopardy the process of returning the country to a representative form of governance. It will generate tensions within the society which the fledging system in still too tender to accommodate.

Pakistan needs a quick infusion of resources to ride over the difficulties it currently faces. It could return to the IMF and request support under a program the institution would want the country to follow. Pakistan has been on that route several times before but with mixed results. The Fund's programs normally sacrifice growth in favor of adjustment and stabilization[9]. Pakistan – and within Pakistan, the province of Punjab – cannot afford to have their economies slow down markedly. Social stability is an important component of the needed overall strategy in the country, beset as it is with extremism and domestic insurgencies. Recent experiences in some of the troubled parts of the world have shown that economic progress is a necessary, albeit not a sufficient condition, to deal with discontent.

The other option is to make a direct appeal to a selected number of donors after developing a credible program for adjustment and growth to be financed jointly by the country and the donors. In a separate paper I have proposed a $40 billion program to be shared equally by Pakistan and its foreign friends[10]. If such an approach were to be made, the donors would like to see a credible program of economic reform and development. The program proposed in this paper for the Punjab could be a part of such an effort.

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[7] The reason why the Pakistani economy has been through so many ups and downs is investgated in my recent book. See Shahid Javed Burki, *Changing Perceptions, Altered Reality: Pakistan's Economy Under Musharraf, 1999-2006,* Karachi,

[8] The nature of the economic crisis that visited Pakistan in 2007-08 was discussed at some length in a report prepared and published by the Lahore-based Institute of Public Policy. The report also suggested a number of policy measures the government could adopt to deal with the rapidly worsening situation. See Institute of Public Policy, *State of the Economy: Challenges and Opportunities,*.Lahore, 2008.

[9] For a critique of the IMF's approach see Joseph E. Stiglitz, *Globlaization and its Discontents*, New York, W.W. Norton, 2002.,

[10] This paper was prepared for the United States National Defense College earlier this year. See Shahid Javed Burki, "Donors could help Pakistan" mimeo, June 13, 2008. Sections of this papper were published in Dawn, See Shahid Javed Burki.

World's interest in Pakistan: Responsibilities it implies and expectations it creates: Pakistan must also plan for its economic future under the glare of the international community. The country's problems have captured the attention of the world as never before. The light that has been shining on the country does not bring out its flattering features. The focus is on the rise of Islamic extremism in the northwestern parts of the country – in the tribal areas bordering Afghanistan and in the North West Frontier Province, the NWFP. As a widely read columnist who writes for *The New York Times* said in one of his recent columns, the candidates for the American presidency must be fully cognizant of the matrix of national crises that stretch "from the gas pump to Pakistan"[11]. For the country to draw foreign capital it will continue to need for years to come, a long-term economic strategy is needed that must have credibility among potential donors and investors. Participation of different segments of the society and decentralized decision-making involving governments at the sub-national level are some of the components that strategy must have for it to gain credibility among the community of donors.

Changes in the international economic environment: The external environment in which Pakistan must plan for the future should be carefully factored into policymaking. This holds for the federal government as well as the governments in the provinces. This was not done in the past, not even during the period of Ayub Khan (1958-1969) when economic planning was a serious business. One consequence of this neglect is that Pakistan today is much less integrated into the global economy than even India, its neighbor, which for decades closed its economy to outside influences much more than was done by the policymakers in Pakistan.

Pakistan today is right in the middle of a fast changing part of the world. It has as its neighbors China and India, the two countries that have more than a billion people and that have been the world's most rapidly growing economies for several decades. The rise of China and India is reshaping the global economy in ways that Pakistan and its policymakers must carefully note and should take advantage of.[12] The global economy is also being reshaped by the transfer of wealth to the oil producing countries in the Middle East. This time around these countries have used the windfall in income produced by the unexpected rise in the price of oil not on consumption as they did in the 'seventies and 'eighties but in creating wealth. A number of sovereign wealth funds established by the Middle Eastern states are expanding their economic horizons. Pakistan is on their radar screens. These countries are also interested in investing in agriculture in such land-rich countries as Pakistan in their neighborhood

[11] Frank Rich, "How Obama became acting president", *The New York Times*, July 27, 2008, p. 12.

[12] This subject has attracted a great deal of academic and media interest in recent months. See, for instance, Fareed Zakaria, *The Post-American World,* New York, W.W. Norton, 2008.

in order to secure the supply of agricultural products they cannot produce at home but the demand for which is increasing rapidly.[13]

There are also expectations of some actions from Islamabad's policymakers on the political front. The war in Iraq has changed the West's perception, most notably that of Washington, of what works in troubled societies. The use of force has severe limitations; force has to be augmented with development – both economic and political – that reaches the affected people. These lessons will have to be applied to Pakistan as Islamabad begins to work with the community of donors to address its current economic problems. While the development of the Federally Administered Areas, the FATA, and to somewhat lesser extent that of the NWFP, will need to figure prominently in any program of economic reform for which Pakistan seeks donor support, even strategic thinking in the distant Punjab will need to reflect some of the worries that the West has about Pakistan.

It has been suggested by several commentators during the media coverage prompted by the resignation of President Pervez Musharraf that the insurgency Pakistan is fighting in the northern years has reached the Punjab and that it has begun to draw recruits from the religious seminaries in the province. A national economic and development strategy must, therefore, pay particular attention to the way the province of Punjab makes use of its human resource, in particular the young who, with the help of training and education, can become economic assets. Neglected, however, they can turn towards extremism and to the many ways in which it manifests itself.

Punjab's economy in 2008: Its size, structure and contribution to the national economy: Punjab is Pakistan's largest province in terms of the share of its population (57.4 per cent) and also in terms of the contribution it makes to the gross domestic product (about 60 per cent). Agriculture makes a larger contribution to the provincial gross product than it does to the country's GDP. Industry has a slightly smaller share. Services contribute about the same proportion.

The structure of the economy has changed significantly since 1947 when the economy relied almost entirely on agriculture. There was little industry and the modern services that were present were associated with agriculture. After independence, Karachi became the center of industrial, commercial and financial development.

Punjab has the potential of becoming an engine of economic growth for the rest of Pakistan. However, for that to happen, a number of policy initiatives will have to be

[13] See Shahid Javed Burki,

taken and the government will have to ensure that the approach adopted will not be dramatically changed even if a different set of political parties than those who are currently in charge gain the reins of power. Policy consistency is an important component of strategies aimed at obtaining high rates of growth. The roller coaster ride on which the economy has proceeded over the last six decades is partly the consequence of the changes in policy with every change in the regime.

The main purpose of this study is to suggest some public policy choices for the policymakers in the Punjab that would increase the province's rate of growth to more than 8 per cent a year by the year 2020, provide productive employment to the province's very young population, reduce the incidence of poverty to less than 10 per cent of the total population, reduce income disparities among the people and among different regions of the province.

The political line up in the province should not be an obstacle to the adoption of this strategy. Economists and political scientists who work in the area of development recognize that there is a close association between politics and economics. This link is one reason why Punjab's economic growth was initially inhibited and the development of agriculture, the province's most important resource, was largely ignored for two decades. For four decades the landed aristocracy was the dominant political force in the province. But its luke-warm support for the idea of Pakistan had politically sidelined it until the Ayub Khan period. Recent history has brought the province to the point where it can, with the right choice of public policies, see its economy expand at a much higher rate of growth.

It would probably be considered an exaggeration to suggest that the elections of 2008 have a signaled a shift in political power from the countryside to the country's towns and cities but there is an element of truth in this assertion. This is certainly the case for the Punjab. The new political establishment in the province should be able to gain support for a broad based economic policy.

The strategy proposed in the study would take the province's economy in a direction different from the one it has pursued in the recent past when the rate of growth was high but its rewards became available to only a small segment of the population. Successful pursuit of the recommended strategy would propel the economy of the Punjab into front ranks of the Asian economies.

A new growth and development strategy for the Punjab: The strategy we have proposed in this study is different from those put forward in the *Provincial Economic Reports 2005 and 2007* to which we have already referred above. We suggest that the province of the Punjab can achieve a much higher rate of growth in the provincial product than it has done even during the high growth years of 2002-08. Our proposed

strategy will make it possible for the province to sustain a growth rate of 8 per cent a year, building up from 6 per cent 2008 in and increasing to 8.2 per cent in 2020.

We have developed four scenarios for the Punjab's growth prospects in the next dozen years, from 2008 to 2020. These are related to the rate of population increase projected from now until 2020. Assuming that the rate of increase in population has declined to 1.8 per cent a year, the population will grow to 113 million by 2020. By then it will be nearly 24 per cent larger than its present size. Although the rate of increase in GDP has an effect on the rate of fertility – it declines as people become more prosperous – the 12 year period chosen for this study is too short for us to project different populations for 2020 under the four scenarios.

The first scenario has the provincial output increasing at the rate of 2 per cent a year, slightly more than the increase in population. Under most outcomes – even under some very grim assumptions – it is unlikely that the provincial economy will lose so much of its current economic momentum. That said, it is useful to spend a moment on this scenario in order to point to some of its essentially adverse consequences.

The most significant impact will be on poverty. Under these assumptions, the incidence of poverty will increase to close to one-half of the total population. The absolute poor – the people who have incomes below that needed to obtain enough food to sustain themselves – will number 56 million. They will be spread across the province but a significant number will gravitate towards the large cities as the poor do when they don't have enough to eat. This is why we believe that under this scenario the rate of urbanization will increase to beyond one-half of the population, reaching, perhaps, 53 per cent of the total.

The second scenario sees the provincial product increasing at the rate of 4 per cent a year. This rate of increase is about the same that prevailed before the growth spurt of 2002-07. At this rate of growth the value of the total out would increase by 60 per cent over the 12 year period between 2008 and 2020. The impact on the incidence of poverty is negligible with the proportion of those living in poverty increasing slightly to 27.4 percent. Under this scenario some 6 million people will be added to the pool of poverty. The rate of urbanization is considerably slower than in the previous scenario, with the proportion of urban population increasing from the present 32 to 42 per cent. Another 13 million people will have to be accommodated in the already crowded urban areas.

Table 1
Four Possible Scenarios

	2008	2020-I[1/]	2020-II[2/]	2020-III[3/]	2020-IV[4/]
Population (millions)	91	113	113	113	113
Rural	62	53	65	67	64
Urban	29	60	48	46	49

Provincial GDP ($ Billions)	90	114	144	181	227
Provincial GDP per capita ($)	989	1009	1284	1620	2036
Number of Poor (millions)	25	56	31	14	11
Percentage of Poor in Population	27	49.6	27.4	12.4	9.7

Data for 2008 are extrapolated from 2007 data.

Population increases at the rate of 1.8% a year with the urban population increasing at 4% a year. GDP increases at a rate equal to that of population. The number of poor increase at a rate of 7% a year. Urban population is assumed to increase at a rate of 4.5% a year because of the slow growth in agriculture which pushes out the poor unemployed to seek jobs in the urban economy. The number of poor increases by 10% a year.

GDP increases at a rate twice the rate of increase of the population at 4% per year. Urban population increases at 4.2% as more jobs are created in the countryside. The rate of increase in the number of poor in total population increases at 1.8% a year equal to the rate of population increase. The incidence of poverty remains the same at 25%.

GDP increases at a rate three times the rate of growth of the population or at 6% per year. The incidence of poverty declines by 5% a year, which means the current pool of poverty shrinks by one-half to only 12 million people. Urban population increase at 4% a year as more jobs are created in the rural economy.

GDP increases at a rate four times the rate of growth of the population. It grows at 8% a year. Urban population increase by 4.5% as more productive jobs are created in towns and cities. The incidence of poverty decline by 7% a year.

Source: Author's computation.

The next two scenarios are induced by policy change. The first of these two – Scenario III of the table – is based on the assumptions made by the World Bank in its above cited 2005 report. The most important assumption made by the Bank was that for a 6 per cent rate of growth to be realized a number of policy changes will have to be made. Two of these were emphasized by the Bank. One, to increase the labor as well as land productivity of the sector of agriculture. Two, to develop small and medium sized industries in the industrial sector. It was assumed that with these two emphases in public policy, the economy will be able to generate one million additional jobs a year which, along with those that were already being created by the economy under the present circumstances, will result in keeping the incidence of unemployment at its present level. A 6 per cent rate of growth in the provincial product will have a significant impact on poverty. The rate of growth of unemployment in the productive sector of the economy, will reduce the migration of workers into the low productivity part of the service sector.

The fourth scenario is the one we prefer. Given the province's endowment, its past performance, and its geographic location, it is not unreasonable to assume that the provincial GDP could increase at a rate equal to a bit more than four times the rate of increase in population. Since, as already indicated, the rate of population increase is estimated to have declined to 1.8 per cent a year, policymakers could settle for an increase in GDP of the order of 8 per cent a year as a reasonable objective to pursue. At this rate the size of the economy will increase two and half times by the year 2020, income per head of the population would more than double and, if the policies recommended here are pursed in earnest and without interruption, there will be a palpable impact on the incidence of poverty**.** If this rate of growth is achieved and it happens with the aid of the policies we prescribe in the report, the incidence of

poverty will decline to less than 10 per cent of the population and there will be only 11 million people still absolutely poor. There will also be some increase in the proportion of the urban population which is projected to reach 43 per cent by 2020. Unlike Scenario I, in which there is strong push from the countryside which sends a large number of people to the cities in search of food and jobs, in this scenario there is considerable absorption of labor in the countryside.

Table 2 provides the trajectory of growth the economy could follow over this period. The economy loses a couple of percentage points of growth as it is put through a period of adjustment through which it must go in order to recover from the imbalances created by the growth model of the last half a dozen years. As detailed in the Institute of Public Policy's first annual report, *State of the Economy: Challenges and Opportunities*[14] we believe that the package of measures the government must adopt will initially impact on the rate of economic growth. However, once the economy begins to stabilize, the rate of growth will begin to pick up. We project the adjustment period to last for 2 to 3 years after which public policies will begin to have an impact. Ideally, the economy should follow an "S" curve, a period of relatively slow rate of growth followed by a pick up in the rate of increase and then reaching a plateau in later years. We see the rate of growth plateauing around 2018 and then stabilizing at about 8.2 percent a year.

Table 2
Growth Path of the Provincial GDP

Year	Size ($ billions)	Growth (Percent)
2008	95.4	6.0
2009	101.3	6.2
2010	107.8	6.4
2011	114.9	6.6
2012	122.7	6.8
2013	131.4	7.1
2014	141.2	7.4
2015	152.0	7.7
2016	164.2	8.0
2017	177.7	8.2
2018	192.3	8.2
2019	208.0	8.2
2020	225.0	8.2

[14] Institute of Public Policy, *State of the Economy: Challenges and Opportunities*, Lahore, 2008.

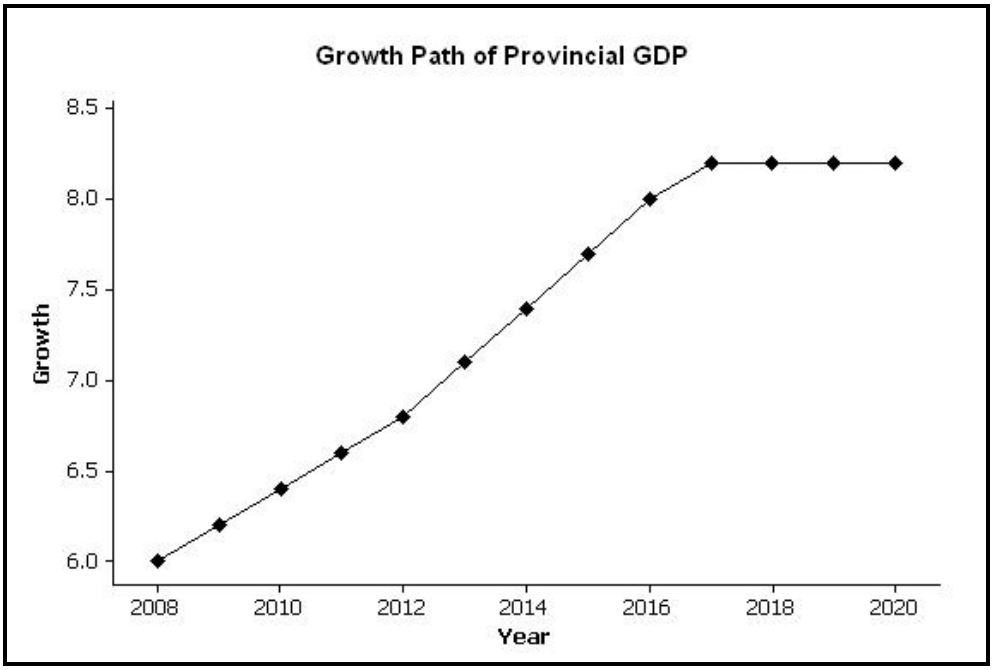

Table 3
Structures of the Provincial GDP under Four Different Scenarios
(Percentage)

Sector	2008 1/		2020-I 2/		2020-II		2020-III		2020-IV	
	%	Output	%	Output	%	Output	%	Output	%	Output
Agriculture	20	18	20	22	17	25	16	36	16	36
Industry	26	23	25	27.5	27	39	27	88	29	65
Services	54	49	55	60.5	56	81	110	49	55	124

Source: Estimated on the basis of the data provided by Government of Punjab for 2007. See Punjab Economic Report 2007.

Table 3 provides estimates for the structural changes in the provincial economy resulting from the various growth rates envisaged in the four scenarios presented in Table 1. Under our preferred scenario which sees the provincial GDP increase at the average rate of 8 per cent a year between 2008 and 2020, the proportion of agriculture in the provincial product declines significantly compared to its present share. Agriculture's share decreases by 4 percentage point. Even then there is a significant jump in the value of agricultural output. It is estimated to double from $18 billion in 2008 to $36 billion in 2020. The 4 percentage points shed by agriculture are picked up mostly by the sector of industry which gains by 3 percentage points while services gain one percentage point.

What are the policy options that need to be pursued by the government which would make it possible for the province to achieve its potential as set out in Part seven of the report. Our recommended policies cover a wide front. They include four aspects

of policy change: one, development of a new relationship between the federal government and the provinces and between the provinces and local government institutions; two, much greater emphasis on employment generation in the choice of public policy; three, greater attention to international trade in choosing investment opportunities; and four, much closer association between the public and private sectors. What follows is a brief summary of the plan of action developed in the main report.

Decentralization of governance and economic policymaking: Extreme centralization of power is one reason why the policy-mix that supported economic growth since 1999 was not inclusive; why the rewards of growth were available to only a few segments of a large and rapidly growing population. Granting greater autonomy to the provinces and to other administrative units should have a high priority for any program of reform. Grant of provincial autonomy was the promise on which consensus was achieved at the time of the framing of the constitution of 1973. This promise was not kept. It has been promised once again by the government that assumed power after the elections of February 2008. In his maiden speech to the newly elected parliament Prime Minister Yusuf Raza Shah Gilani promised to do away with the "concurrent list" in the constitution that gives shared responsibility to the federal government and the governments in the provinces for a large number of subjects. All the subjects mentioned in the list will become the responsibility of the provinces by April 2009. Trade policy and financial management are two areas in which the provincial governments must have a significant presence.

But the need for decentralization does not stop with the grant of greater economic and financial authority to the provinces. It should extend to the institutions of local government. A companion study to this study was prepared for the Punjab government by the Institute of Public Policy that examined the performance of local government institutions established under the Local Government Order of 2001[15]. It suggested a number of changes in the system to give greater responsibility to the institutions of local government.

Provincial growth and development strategies: One part of the strategy allowing the provinces greater autonomy in economic affairs would mean that the overall national strategy of growth will be a composite one made up of the four provincial strategies and one each for the Federally Administered Tribal Areas, the FATA and Azad Jammu and Kashmir. The federal government will play a supportive role. Each provincial strategy will reflect the economic endowments, history, and geographic location of the concerned jurisdiction. In this context we recommend the following:

[15] Institute of Public Policy, *Assessment of Local government System in Punjab,* July 2008.

The center may lay the broad framework within which the provincial strategies should be written. This task should be assigned to the Planning Commission. Working with the provinces, the federal government will provide a broad assessment of the resources that will be made available to the various parts of the federation. The National Finance Commission will be the institutional mechanism for deciding on the quantum of resources to be provided by the federal government.

The provincial strategies and associated medium (say five years) development plans should come with their financing plans. These plans should be reviewed by the National Finance Commission.

The provinces should require the districts to develop their development and financial plans to overlap with those of the provincial plans. Greater financial autonomy will allowed to the districts on the basis of a phased plan that will begin with the more developed and credit worthy districts.

International Trade: While international trade is rightly the preserve of the central government since it involves the country's relations with the outside world, trade policy can profoundly affect the development of the provinces. The Pakistani federation has one unique feature not present in other large federal systems; each one of its federating units has an international border. As such the provinces must have a say in the formulation of trade policy. The Punjab, for instance, borders with India and Kashmir. Sindh borders India and has a coast that gives it access to the outside world. Other provinces have international borders as well. However, trade policy has been the preserve of the central government with no inputs from the provinces. An example of this is the negotiations leading to the conclusion of the free trading arrangements with individual countries or groups of countries. In the past these discussions were held and agreements were reached by the federal government with little (in fact, sometimes with none at all) discussions with the provinces. To take one recent example, the South Asia Free Trade Area, the SAFTA, agreement was concluded by the Ministries of Foreign Affairs and Commerce in Islamabad without much consultation with the provinces. The modalities in the SAFTA, the time table over which it will be implemented, how its implementation will be watched are all areas of considerable interest for the Punjab since they will have a palpable impact on the provincial economy.

This situation needs to be remedied with the provinces allowed an active role in the formulation of trade policy. Punjab's economy would benefit enormously if trade with India were to increase. This will also profoundly affect the structure of the provincial economy. In this context, we recommend

The revival of the Council of Common Interest, the CCI, that, under the constitution, has the responsibility of coordinating the interests of the provinces with that of the center. The CCI should be given the responsibility for the formulation of trade policy.

It should have a secretariat with officials drawn from all the provinces .The federal Ministry of Commerce should continue to have the responsibility for advising the CCI, conducting international negotiations and discussions, and watching over the implementation of trade policy. However, the provinces should be fully consulted when trade agreements are being drafted.

The Government of Punjab should create a trade unit in the Policy Planning and Development Department which will be the main contact between the CCI and the provincial government. It should also produce an annual report which should identify the opportunities available for increasing exports from the province. This should be a companion document to the Punjab Economic Report. (See below.)

Generating finance for implementing the strategy

The strategy proposed in this report implies a significant increase in the amount of capital to be invested by the government. For an average rate of growth of 8 per cent a year, the province will have to invest about 30 per cent of the provincial product, about 50 per cent greater than the present level. Such a jump will not be easy without the development of a resource mobilization strategy. At this time much of the government's finance for development comes from two sources, the federal government and the donor community. As already indicated, the federal government provides resources to the provinces under the dispensations made by the National Finance Commission. Fiscal decentralization is another aspect of governance that should become an important part of the new strategic approach to economic development in the country. This is another area of federalism in which the center has disregarded the interests of the province. The Constitution requires the central government to establish a National Finance Commission, the NFC, to apportion resources among the federal government and the provincial administrations. This is to be done every five years but this constitutional provision – along with several others concerning the grant of provincial autonomy – was largely ignored. The last time an NFC was successful in giving an award was in January 1997 under the auspices of a non-elected caretaker government headed by Prime Minister Miraj Khalid[16]. The Musharraf government set up an NFC which could not arrive at an understanding among the provinces and was not able to issue an award. The President used he executive authority to issue new dispensation. It distributed the federal government's divisible pool of resources largely on the basis of population. Two exceptions to this rule were the royalties given to the provinces of Balochistan and the NWFP for the use of their gas and water resources respectively. These provinces, being the most backward in the country, were also given development grants in addition to their share based on their populations. In this context we recommend the following:

[16] I chaired the Commission as the Minister of Finance in the caretaker government. Hafiz Pasha, as Deputy Chairman of the Planning Commission acted as my deputy.

To promote fiscal decentralization, we propose a binding commitment that the NFC would be established every five years. The Ministry of Finance at the center and the Departments of Finance in the provinces should be required to establish NFC units to oversee the implementation of the awards and to generate proposals for discussion when new rewards become due. This institutional mechanism would be created at all levels of governance.

Instead of expanding the divisible pool – the pool of resources available to the central government for distribution to the provinces – there should be greater transfer of fiscal responsibility to the provinces.

In developing its own resource base, the Punjab Government should invest in the development of computerized data base for all properties located in the urban areas. The value of these properties for tax purposes should be determined every five years with the owners allowed to appeal the valuations. (In the section on agriculture, we have emphasized the importance of the digitization of land records.)

The Government of Punjab should experiment with giving greater financial responsibility to some of its credit worthy cities. The selected cities should be required to develop their financial plans, indicating the sources of finance. These plans should be reviewed by the Finance Department and should be updated every year.

Cities such as Gujranwala and Sialkot – the first a large city, the other a middle-sized city according to our classification – should be allowed to tap the capital markets for raising financial resources on pilot bases. Credit agencies should be required to keep a watch on the financial performance of the cities thus building a record that would help to improve the capability for managing municipal finance in both the public and private sectors.

Identifying the "winners" approach to development: In making our recommendations for the reform of the more important sectors of the economy, we part company with those development economists who would like to leave all investment and development choices to the market place. This was the basic thrust of the approach given the name of *The Washington Consensus* since it reflected the thinking of such Washington based development institutions as the World Bank, the International Development Bank, the Institute of International Economics (IIE) and the International Finance Institute (IFI). This approach wanted the state to pull back from all aspects of economic management other than arm-length regulation. The Washington consensus guided policymaking, in particular in Latin America, for almost a couple of decades. The result was not always encouraging. A reaction has now set in and the state is finding its way back into economic management. We follow this revisionist course in designing the agenda for reform for the Punjab.

The strategy will be based not only identifying the winning sectors but also the winners within the sectors. There has been a long-running debate among economists about "choosing the winners" approach to development. Some suggests that there is no role for the government in identifying the sectors and products that should be given preference for private sector investment. This is the task best done by the private sector itself. However, empirical evidence suggests that the countries that followed this approach have made a success of their economies. Japan followed by a number of East Asian countries, in particular South Korea, Taiwan, Thailand and Malaysia, used this approach to considerable advantage. We will follow the picking the winners approach in developing the proposed strategy. This is discussed in the context of the sectors of the economy that require particular attention by the state, both by the federal as well as the provincial governments.

Agriculture: Agriculture is far the most important sector in the proposed strategy. It will underpin several other components of the strategy. Its development was neglected in the past in part because of political reasons and in part because of the traditions that continue to dominate the making of public policy concerning the economy. As noted above, the province's agriculture was developed by the British to serve as the granary of India, supplying wheat and rice to the food deficit province's in the northeast of the sub-continent The province also developed a large cotton base supplying the fiber to the textile mills in the Indian province of Gujarat and Bombay. Even after trade with India declined, this cropping pattern continued and still dominates the sector. The realization that the sector could make a much larger contribution to the provincial economy and to alleviating rural poverty has been there for decades. It was the corner stone of the Report of the Agricultural Commission written two decades ago[17]. But this recognition did not lead to a change in agricultural practices since it was not supported by public policy. That needs to change. There are several areas of public policy – in addition to those pertaining to the sectors of livestock and irrigation that will be dealt with separately – that will need attention to obtain the full potential of the agriculture sector. We list some of these below:

The government should identify the crops and products that will receive its special attention. Those that may qualify for this treatment are vegetables, fruits (mangoes and citrus), flowers, oil-seeds, basmati rice and cotton.

Five year development plans for each of the winners should be formulated and included in the annual economic reports.

Land titling policy needs to change with the computerization of land records and handing over the responsibility for their maintenance to the institutions of local

[17] Government of Pakistan, *Report of the Agriculture Commission*, Ministery of Agriculture, Islamabad, 1983.

government. Landholders should have access to these records on the internet. Such a program is being funded by the World Bank but is not making much progress because of the pressure groups that are against the pursuit of this approach. The government should accelerate the implementation of the program.

Land markets need to be developed – an objective that will be helped enormously by the computerization of land records – and financial institutions need to be encouraged to provide credit to the sector with land as collateral. It may be necessary to establish land courts to adjudicate on land disputes, replacing the current system of settling disputes by the officials of the land administration system.

Agriculture research should be reorganized to focus attention on the crops and products selected as potential winners. The previous Punjab administration's program to encourage research by delinking it from the teaching institutions and by creating semi-autonomous entities focused on high potential products should be continued. This is a better model than centering research in teaching institutions

The government's control on the prices of agricultural products including livestock products should be eliminated and the private sector should be allowed to set prices without interference by the provincial and local governments.

The government should repeat the Agriculture Markets Act of 1939.

Livestock: Livestock contributes about 9.4 percent to the GDP and 40 percent value addition to agriculture sector. The country is earning close to $1 billion in dairy exports every year. Pakistan has one of the world's largest livestock populations. It is estimated for the entire country at 125 millions of which 50 percent are large ruminants (cattle and buffalos) and 50 per cent are small ruminants (sheep and goats). The livestock population is growing at the rate of 3 to 5 percent a year. Punjab, with 52 percent of the total population, has the largest share in animal population followed by Sindh with 26 percent. About 75 percent of the population is engaged in the sector of livestock but most of those working in this are small operators. More than 90 percent of those participating in this activity possess less than 4 animals. Only 5 percent of those in the livestock business have more than 100 animals. Any effort to develop livestock into a meaningful economic sector producing high value added products while increasing the incomes of the poor must take account of the size distribution of animal populations. According to one estimate if 5000 small farmers in each district could be given credit to increase their stock of large ruminants by a total of 10 animals- six buffalos and four cows- milk production alone would increase by 100 liters a day, equivalent to an increase of 0.5 million liters a day per district, or an increase of 30-40 percent of total output per district.[18]

[18] Riaz Muhammad Junejo, "Rural dairy farmers and alleviation of poverty", *Dawn: Business*, October 29, 2007, p. III

Pakistan needs to give greater attention to the expansion of the livestock sector. This is for at least three reasons. One the consumption of livestock products is less than that required – per capita availability of milk is 80.5 litters and that of meat 60.5 kg, considerably less than the minimum required level of 27.5 grams of proteins daily. The second reason is that an increase in the output of the sector can contribute significantly to poverty alleviation, improvement in income distribution and accelerating the rate of economic growth. Achievement of this objective requires a multi-pronged approach. Third, the development of the livestock sector can help increase the value of exports. There is a growing demand for animal products in many parts of the developing world. There are markets in the Middle East that Pakistan could tap for increasing exports. We recommend the following for the development of the sector:

Making credit available to small producers who need to improve the quality of their herds, the number of animals they manage and access to the markets. This could be done with the establishment of a Livestock Development Bank in association with the private sector.

Setting up collection centers and marketing chains, and research and development to improve the quality of livestock. Improving the health of the animals must have a high priority. This began to receive considerable attention by the previous administration that set up a system making use of the institutions of local government. Some of the health services that are of particular consequence for the sector could be provided by the private sector.

The Punjab operates a system of price control meant to provide protection to the consumers of animal products including milk and meat. This should be done away with leaving the price to be determined by the market. Deregulation of prices will bring more operators into the sector increasing the proportion of milk that gets processed at this time. The state needs to be much more active in ensuring the quality of the products delivered to the consumers. A system of certification needs to be introduced that clearly identifies the inspectors who are issuing the documents.

Another government initiative should be to partner with the private sector to establish dairy development and extension centers in each village with a population of 500 and more farmers[2]. The center should register the farmers of the area and provide them with facilities for milk collection; supply of processed food; artificial insemination services; health services; parasite control; natural breading services through pedigreed bulls; credit facilities; and arranging cattle shows to increase competitiveness among these farmers.

Irrigation: The Punjab has one of the largest contiguous irrigated areas in the world. The system of canals that brings water to 23.5 million acres of land was built over a

period of 150 years. It now has 19,073 miles of canals of which there are 3,711 miles of main channels and branches, 11,609 miles of major distributaries, and 7,464 miles of minor distributaries. Starting in the late 'fifties, the farmers began to invest in sinking tubewells to draw ground water to augment the supplies available from the canals. These were small bore wells. In the late 'sixties the government began the Soil Conservation and Reclamation Program, the SCARP, which was centered around the sinking of large bore tubewells to lower the water table as well as draw salt water from the ground in the areas affected by salinity. There are now 825,000 tubewells in the province mostly installed by the private sector. The government terminated the SCARP program after it had served its basic purpose. Public sector operates only 2800 wells. Most of the wells – over 91 per cent – are run on diesel.

For several decades the system was allowed to run into disrepair. The government did not commit the resources that were required for maintaining it. The neglect of the system resulted in considerable loss of water through evaporation and seepage; according to one estimate, as much as 50 per cent of water flowing through the system was lost[19].

The government needs to make a greater effort in improving the already vast irrigation system so that greater flow of water becomes available to the farmers. Some steps have been taken by the Punjab government in this area and they are already showing positive results. Supported by the World Bank, the Punjab Irrigation Department has improved the efficiency of the system by lining some parts of the canal system to improve the flow of water and to reduce the amount of seepage. It has also created a community based structure for regulating water use giving much greater authority to the users while changing the role of the department from the manager of the system to one that provides technical and administrative support. While the initial results are encouraging, it is still very much a work in progress. Our recommendations in this sector include the following:

The government should continue with the program to involve the farming communities in the management of the system.

The government should continue to increase the reach of the program that provides up-to-date information to the farmers on the internet on the availability and distribution of water.

The government should study the system of water pricing with the view to charging the users a larger proportion of the cost for providing them this scarce resource. The resources raised from this source should be earmarked for maintaining the irrigation system.

[19] Syed Salar Kirmani, "Losses in Pakistan's Irrigation System", mimeo, The World Bank, 1980.

The government should study the cost and benefit of producing different agricultural and livestock products based on the correct pricing of Water reflecting its opportunity cost. This information should be passed on to the producers in order to help them make decisions on product choices.

Industry: The industrial sector will also have to play a significant part in accelerating the rate of increase in PGDP, alleviating poverty and improving income distribution. Because of the changes that have occurred in the shape of the global industrial sector, Pakistan does not have many opportunities available in large scale industries. Several other developing countries have beaten Pakistan to claim shares in the international markets. Accordingly, Pakistan it will need to develop niches within which to develop the production of some lines of products. The emphasis will need to be on small and medium sized industries in which the Punjab possesses human skills and experience. There is also the possibility of creating international markets for the products of these industries.

The approach to be followed parallels that proposed for agriculture. The provincial government should develop the capacity to identify the “winners” to be supported and then work with the private sector to promote their development. There are several lines of products that have potential for development for both domestic and international markets. These include agro-processing, dairy products, leather products, surgical instruments and hospital equipment, sports goods, furniture, automobile and tractor parts, small consumer durables, and construction material.

The institutional mechanism for lending support for this kind of industrialization exists. The government set up the Small and Medium Enterprises Development Authority, the SMEDA, in 1998 and it has worked well within the context of the framework that was developed for its operations. Our recommendations for the sector include the following:

With the promise of greater provincial autonomy, it may be a good time to split the SMEDA into provincial corporations and have them report to the administrations of the provinces in which they are located. We suggested that the SMEDA should be split into six fully autonomous parts, one each for the four province, one for the Federally Administered Tribal Areas (FATA) and one for Azad Jammu and Kashmir.

The mandate provided to the corporation should be expanded to include (a) identification through analytical work of the winners it would support, and (b) introducing the enterprises being supported to new avenues of finance such as venture and private equity capital.

The regulatory system should be reviewed in order to minimize the number of visits made by various types of inspectors. The number of agencies regulating the sector should be reduced.

The government should set up industrial zones specializing in the production of the products, the government has identified as the winners.

Energy: Over time the institutional underpinning of the management of the energy sector has changed significantly. Initially two government owned entities had total control over the electricity sector. Of these the WAPDA was the dominant player responsible for generating, transmitting and distributing electricity to all areas of Pakistan other than Karachi. For Karachi, this was the responsibility of the Karachi Electricity Supply Company, the KESC. However, under pressure from the donor community, the government decided to privatize the KESC and split the WAPDA into several components. Two separate operational units were set up to manage thermal and hydel power generation while distribution was divided among eight district companies that were to become financially autonomous over time. A separate agency was established to manage transmission. Regulation of the power sector including tariff determination was handed over to an autonomous entity. The purpose of this institutional restructuring was to lesson the control of the government over electricity and subject its generation, transmission and distribution to the rigors of the market place. That has not happened. For instance the tariffs recommended by the regulator were not initially accepted by the government. It continued to subsidize the sale of power to all categories of consumers thus increasing the burden on the budget.

At this time we would suggest a radically different approach to the solution of the energy problem. The government should split the responsibility for power generation into three parts. Large projects generating more than 1,000 MW should remain with the WAPDA while smaller units should be allowed to be established either by the private sector or by the provincial governments. The private sector should continue to work within the policy framework determined by the central government. The provincial governments should be permitted to establish their own generating companies with the support of the private sector. One more feature of this arrangement would be to allow the provinces to trade electricity with one another. The sale price would be determined through negotiations. It would not be fixed by the central regulator. This approach will allow each province to tap its own resources. Sindh would most likely concentrate on coal and natural gas; Balochistan also on these two sources while also developing the potential of wind power; the NWFP will work to develop its enormous hydel potential; the Punjab could develop small hydel units on the many canal heads that are parts of its large irrigation system. Each province could develop solar power abundantly available to all of them. The revenue generated through this sale of power to domestic users or traded with other provinces would provide capital for investment.

If the Punjab were to rely on natural gas as the fuel, it should procure it at the market price from the provinces where it is produced. If it decides to use imported fuel oil, that too should be obtained at market prices. If the province decides to subsidise the use of power by some category of consumers, it should do so by providing support through the budget rather than by distorting the price structure.

Such an approach has many benefits. It would establish a market for trading electricity, which was one of the objectives of the reform effort launched a few years ago. It would deal with the resentment of such relatively more backward provinces as Balochistan and the NWFP that they have not been adequately compensated for the use of their rich resource base by the more developed parts of the country. It would encourage the efficiency of resource use by making electricity an openly traded commodity. It would create incentives for the provinces to do research and development in such new technologies as solar, wind and waste products' utilization. It would ease the burden on the central government for increasing generation capacity. And it would produce a healthy competition among the provinces.

Once this three-tier system is established and has created an operational track record, some of the larger units could also be handed over to the provinces. At this point while the central Punjab is the largest consumer of electricity, large amounts of power it receives are produced in the NWFP (at Tarbela), in Azad Kashmir (at Mangla) or in the gas fired plants in various parts of the province. By purchasing this power from the provinces, it would help to reduce the economic grievances of the country's more backward areas.

Domestic Commerce

Domestic commerce is a major source of employment in both urban and rural areas. According to one study, the sector employs 40 per cent of the labor force and contributes 15 per cent to the gross domestic product. Its proper development could add 2 per cent a year to the growth of GDP.

Given that, it is hard to understand that public policy has paid such little attention to its development and modernization of domestic commerce. The sector is operated by small operators where the ownership is within the family and most of the employment is also provided by the members of the family. Goods offered for sale are procured from the producers close to the point of sale or bought from the wholesalers who are themselves small operators. While the shopkeepers in the countryside sometimes offer credit to their suppliers, this is often at exorbitant rates. There is no formal credit market operating in this sector of the economy.

There is considerable scope for the development of domestic commerce to make significant contribution to the rate of growth of the economy as well as increasing employment. The entry of two large international marketing chains based in Europe,

the Metro and Macro, should help in the development of the sector. These chains have established stores in some of the large cities of the country including Lahore and Islamabad. Their arrival should begin to modernize the supply chain, bring about improvements in quality and standardization of the lines of products that are finding place on their shelves, and possibly introduce some of the Pakistani products in international markets. What are some of the policy measures the government could adopt to promote and modernize domestic commerce? We would like the government to focus on the following:

It should develop a policy framework with commercial activities treated at par with industry in terms of taxation.

It should encourage the scaling up of domestic commercial enterprises by helping to set up supply chains by providing technical assistance and improving their access to finance.

A Provincial Corporation of Domestic Commerce should be set up in association with the private sector with services provided on a charge back basis.

District governments should set up properly regulated markets for perishable products.

Urban Services

Pakistan – that includes the province of the Punjab – underestimates the size of the urban population. This is for two reasons, one political, the other definitional. The powerful landed community that dominated the political system for two decades, from the mid-sixties to the mid-eighties, was reluctant to share power with the emerging leadership groups with bases in the large cities. They went to the extent of preventing various administrations from conducting decennial censuses even if they were mandated by the constitution. Censuses on a regular basis would have led to the reapportioning of the seats in the central and provincial legislatures in favor of the urban areas.

The second reason relates to the definition of urban areas, in particular large cities. This problem is common in all countries with large cities. Lahore is a case in point. It is difficult to determine where a city like Lahore ends and where the cities and towns in its periphery begin. We believe that the Punjab has a much larger urban population than indicated by the census of 1998. The proportion of the people residing in urban areas is probably more than one-half of the total population; more than 45 million for the size of the population we have estimated for this report.

In order to design public policy for the urban areas we believe that it is useful to divide the urban community into four categories: large cities with populations of more than one million people, urban communities on the peripheries of large cities, middle-

sized cities with populations of between 50,000 and one million and towns with populations between 10 and 50 thousand. The economic and social dynamics of each of these four urban areas – in fact also political dynamics – differ markedly. Each of these four areas not only has its own dynamics, its problems as well as the opportunities exist differ from those that fall in the other categories. That is one reason why in the making of public policy, considerations should be given to these differences. Our policy recommendations for the urban economy take these considerations into account.

Every effort should be made to have the large cities – Lahore, Faisalabad, Rawalpindi, Gujranwala, and Multan – become autonomous administrative units. The city nazims should be directly elected by the citizens and, on a pilot basis (initially tried in a couple of these cities), they should develop their own administrative cadres. The large cities should formulate their financial plans.

Again on a pilot basis, the large cities should have their own police and police academies. The appointment of the head of the city police should be the responsibility of the nazims but with the approval of the City Council.

The large cities should revise their zoning policies to encourage the construction of high rise buildings thus reducing the pressure on agricultural land on their peripheries.

The large cities should be encouraged to develop cultural institutions including libraries, art galleries and centers of performing arts.

Intra and inter-city transport

Pakistan, including the province of the Punjab, has paid little attention to the development of transport – both intra-city and inter-city. In fact there has been regression in this area. In the earlier periods – in the sixties, in particular – most large cities were well served by public service bus companies. Punjab also had a well organized inter-city transport service run by the public sector. Both services suffered in the seventies and were allowed to be replaced by private operations which were poorly regulated. One consequence of this is that the poor don't have access to a reliable system of transport in any of the major cities of the province. As we will show below this can change with the state encouraging the private sector to enter this business in line with the standards it sets.

The situation with respect to some aspects of inter-city transport is different. The construction of the Lahore-Islamabad Highway involved an agreement with Daewoo, the construction company that won the contract to build the facility, to run a modern service between Lahore and Islamabad. Daewoo's operations have spawned a new transport business in the Punjab with a number of other private operators entering the field. They are now running services that are comparable in quality to the one provided by Daewoo. This is a good example of the role the state can play in

motivating private initiative and private enterprise. In the case of the Daewoo bus operation on the motorway, the state's role was confined to making the provision of the service a part of the construction contract. It is a good illustration of picking the winner approach to development we have advocated in this study. The study recommends the following measures to be adopted by the government to improve urban transport in the province:

Transport operations should be based on the grant of permits for the operations of various kinds of services. The permits should be auctioned in order not to create rent-seeking opportunities for the authorities managing the permit system. (This had happened during the period of President Ayub Khan when bus and truck route permits were issued by the government. Overtime a great deal of corruption and political favoritism crept into the system. The permit system was abolished in 1970). Fares should be regulated reflecting the quality of service provided. The revenue generated by the auctions should be earmarked for providing passenger facilities at the bus stops.

The provincial government should continue to implement the mass transit project in Lahore with the objective of replicating it in other major cities of the province.

Tourism: Given Pakistan's security situation and the way the country is perceived by the world outside, it would seem strange to identify tourism as a sector on which the government should concentrate some of its attention and on which it should spend some of its scarce resources. It will take years of stability before Pakistan could turn some of its physically attractive areas in the mountainous northeast and in the desert regions of the southwest into attractions for foreign tourists. But that does not mean that the potential offered by tourism should be ignored. The government could follow a four stage strategy. In the first, areas that have tourist potential should be developed for domestic consumers. This would mean developing the infrastructure – roads, hotels, restaurants, tourist sites, and improving transport facilities – needed to develop domestic tourism. The next step would be to develop these sites for the members of the Pakistani diaspora who would be interested in visiting these sites along with their families. The Chinese took a similar approach to develop their tourist industry. They too, at one point, were not loved by the foreigners, but opened thousands of tourist sights to their own citizens. As the word spread, this attracted the members of the large diaspora to bring their young to the country to reacquaint them with the motherland and its culture. Foreign tourism developed later on. Pakistan could follow a similar route.

In addition to domestic tourists and overseas Pakistanis bringing their families to see Pakistan, the Punjab should also invest in developing religious tourism for the Hindus, Sikhs and Budhists for whom there are a number of holy sites in the country. Some effort was made by the previous government particularly in regard to the

restoration and development of holy Sikh sites. This effort should be transformed into a program funded from the fees to be charged from the tourists. Perhaps a Religions Tourism Corporation could be set up in association with the private sector to develop the religious sites in the province.

Another area of potential for tourist development is re-acquainting the Pakistani citizens with their own history. This has been done to some extent by the Punjab Tourist Development Corporation, the PTDC, in the context of some of the history-rich cities of the province such as Lahore and Multan. The Pakistani deserts, in particular Cholistan, offer very attractive sites to the tourists who are attracted by the environment that deserts offer. Once again PLTC has a program for the development of Cholistan as an attractive tourist site. In this context the government should:

Develop a two stage tourism development program starting with domestic tourism, then going on to the development of the tourism for the Pakistani diasporas.

The provincial government should work with the federal authorities to develop religious tourism for the Hindu and Sikh visitors from India. A separate corporation may be set up for this purpose.

The private sector should be encouraged to develop 3 and 4-star hotels in the provinces major as well as secondary cities.

In addition to these sectoral measures report also discusses a number of non-sectoral interventions by the government that include the development of the province's human resource, establishment and or development of existing institutions without which sustained economic development and social change can not occur, redefining the role of the state and developing a better understanding of the changes in the global environment in which the province needs to operate.

Human Resource Development

We estimate the Punjab's current populations at 93 million. Because of the high rates of growth in the past several decades, the population is young. We estimate its median age at only 17 years which means that 46 – 47 million people are below that age. Since the fertility rates are declining, resulting in a fairly significant decrease in the rate of population growth, this demographic bulge will gradually work its way through the structure of the population. Properly trained and educated, the province's young could become an important economic asset. Neglected, they could swell the ranks of the radical forces in the province and the country.

It is necessary, therefore, for the state to invest in human development for the purpose of promoting economic growth. Such attention is needed also for ensuring social and political stability. It this context, what is an appropriate role for the state?

In focusing attention on human resource development, the state should: pay particular attention to improving the reach and quality of basic education. As Pakistan has made the commitment to achieve primary universal literacy, all efforts should be made to fulfill that pledge. We also believe that basic education should be defined not only to mean primary education but 10 to 12 years of scholarship.

In addition to basic education the state should also undertake to raise the levels of skills of the workforce. This is needed not only at higher level but at all levels. Only than would be it be possible to raise the productivity of the workforce.

The state needs to give particular attention to the education and skill development of women. Female education should receive a high priority at all levels. Women's particular attention. Quotas for women should be fixed for some government positions, particularly at the higher levels.

There is the need for the state to invest in research particularly in those areas we have identified as the winners. This should be done in collaboration with the private sector.

The report concludes with an elaborate 60-point agenda covering 16 areas that should be considered for adoption by the provincial government in order to have the provincial gross domestic product increase at a sustainable rate of 8 per cent a year in the next few decades. It also recommends the establishment or changes in the institutional structure of the government.

PART TWO

THE SETTING

This report will develop an argument, a strategy, and a detailed policy framework based on a number of assumptions. Among these one of the more important one is that the Punjab can accelerate its rate of growth to an average of 8 per cent a year provided it adopts the right set of policies. The choice of policies should be dictated by a recognition of the provinces endowments, which are considerable; by an awareness of its geographic location, which gives it strategic advantage; and by an understanding and appreciation of its history, which explains why the province has developed the way it did over the past 60 years. Pakistan does a poor job of teaching history and the Punjab, the country's largest province, is no different. For this reason we begin this report by noting some historical trends that will provide us with the setting to develop a plan for the future economic and social development of the province.

We will be selective in choosing the subjects for attention from the province's rich history. We will begin with discussing the province's inheritance, focusing on the development of an extensive irrigation network by the province's colonial masters. The British also built an equally extensive network of roads and railways to carry surplus farm produce to the adjacent as well as distinct markets. Not only that, the British also gave the province a system of maintaining land records and settling land-related disputes, of using the land records to collect revenues for the government so that the people paid back to the government what it had spent to build the system of canals, roads and railways; of providing basic social services to the people with the help of a decentralized system of governance; and of maintaining law and order in the countryside as well as in towns and cities.

This was a rich inheritance. On these foundations an independent Pakistan could have built a vibrant economy in the Punjab focused on agriculture, agro-processing, and light engineering goods. This did not happen for the reason that politics intervened. The partition of 1947 brought some unexpected political forces to the fore of the policymaking process. These were dominated by the members of the refugee community that arrived from India. It took two decades for the country to resolve the conflict that ensued between the "outsiders" and the "insiders". It took another two decades before the Punjab was able to develop a leadership that was more representative of the social and economic make up of the province. This has happened and the province is now finally set to move forward.

In order to move forward Pakistan's leadership will have to allow greater authority to the provinces and for the provinces to allow a larger flow of responsibility to the

district and tehsil governments. That the country has run a more centralized system of governance than granted by the constitution of 1973 was mostly because of the domination of the military for most of the period since the adoption of the constitution. The military believes in a centralized command and control system of governance. It applied the same model to civilian affairs when it took over the control of politics. Overtime, Pakistan has become a highly centralized state. This is particularly the case in the way it has managed its economy. Experience from around the globe provides good evidence that centralization inhibits growth and also contributes to the worsening of inter-personal and inter-regional income distributions.[20] Allowing greater decentralization will not only help with the development of the provinces it will also produce checks and balances that the country has lacked ever since it gained independence. Strong provinces should be able to constraint the use of excessive authority by the federal government.

Punjab's Inheritance

The British invested heavily in Punjab's economy not to meet what would be described today as "development objectives". Like all colonial powers, they were not particularly interested in the economic and social development of the areas they had occupied and gone on to govern. Punjab's economy received their attention for strategic reasons. The province offered a way out of the problem posed by recurrent famines in the northeastern parts of the British Indian domain. Millions of people had died in these famines; their recurrence posed a serious security threat for the British rulers. The Punjab offered a way out of this conundrum. The province had large tracts of virgin land and an extensive river system that could be tapped to provide water for irrigation. The British government concluded that by investing in the Punjab they could turn the province into a granary of British India and save the food deficit provinces from the scourge of repeated famines. The famines in British India's northeastern provinces had claimed millions of lives and begun to pose a security threat for the colonial administration. According to the historian Niall Ferguson, not known for being a critic of the empire building activities of Britain, "disastrously the ratcheting of taxes in Bengal coincided with a huge famine, which killed as many as third of the population of Bengal – some five million people…Nor did the bad times end there. Another famine in 1783-4 killed more than a fifth of the population of the Indian plains; this was followed by severe scarcities in 1791, 1801, and 1805." The administration was not only concerned that repeated famines would produce great disaffection among the citizenry. There were also economic concerns. "If the cash cow of Bengal were to starve to death, the company's prospective earnings would collapse." [21] It was clear that some action had to be taken. Based on the recommendations made by a series of Royal Commissions to investigate the causes

[20] The World Bank, World Development Report, 1999-2000, Washington D.C., June 1999.

[21] Niall Ferguson, *Empire: How Britain Made the Modern World*, London, Allen Lane, pp. 52-53.

of the famines, the British decided to develop agriculture in the Punjab to increase the supply of food grains.

An extensive net work of irrigation canals, measuring 12,000 miles, was built during the colonial period. The work first started in the areas that were to become part of the Indian Punjab after the 1947 partition. Inundation canals were built by the Mughuls when they ruled the Punjab from the mid sixteenth century to the mid eighteenth century. They received water when the rivers were in flood. The British converted them into weir-controlled canals. The first weir was constructed on the Ravi at Madhopur now in the Indian Punjab. Water from the canal irrigated lands in the districts of Lahore and Amritsar. The colonial administration started the canal development work with east Punjab since this area was densely populated and was agriculturally more advanced. There was a fear that the pressure of population in these areas could also create serious food shortages of the type that had brought so much misery to the eastern provinces. Later irrigation works were extended to the sparsely populated districts in western Punjab, the part of the Punjab that was to become Pakistan in 1947.

Work began in earnest in what is now the Pakistani province of the Punjab in 1892 with the construction of the Lower Chenab Canal with head works at Khanki, creating great new canal colonies in the central parts of Lyallpur (now Faisalabad) and Sheikhupura. The Jhelum, the most westerly tributary of the Indus, was tapped in 1901 at Rasul and its waters were brought by the Lower Jhelum Canal. Attention then turned towards the desert lands of the Montgomery (today's Sahiwal) which stretched to the south of the Ravi. In 1913-15, the government undertook "an outstanding feat of irrigation engineering – the Triple Canal Project" that transported water from the Jhelum, across the Chenab and the Ravi for use in the lower reaches of the Sutlej. At the time of independence "just over half the irrigated area in the Punjab [was] located in the three districts constituting the major canal Colonies, namely Lyallpur, Shahpur [now Sargodha] and Montgomery"[22].

The land that came under cultivation as a result of the availability of year-round irrigation was settled largely by the farmers from the eastern part of the province where they had demonstrated both enterprise and diligence. The farms in east Punjab were small and a pick up in the rate of population increase had resulted in crowding the countryside. The offer of land to the peasantry in this part of the province served two purposes: it relieved pressure on the land and it provided owner-cultivators the land that was ready to be cultivated by the application of water brought by the newly built system of canals. Within a decade from the time investment was made in developing the canal system, the Punjab began to produce

[22] J. Russell Andrus and Azizali F. Mohammed, *The Economy of Pakistan*, London, Oxford University Press, 1958, p. 84.

surpluses of grain. The strategy to use the Punjab to take care of the food short northeastern provinces had paid off. However, the surpluses had to be transported from the farms to the point of consumption and for this networks of roads and railways were required. These too were built by the state and the Punjab got well connected to the northeastern parts of British India.

Having made large investments in agriculture and irrigation the British needed some of these paid back to the state in terms of taxes by the beneficiaries. The question was how should the state tax agriculture? The answer came from those who studied the land administration systems under the Sikhs and the Mughals who had ruled the Punjab before the British established their domain over the province. The British developed an elaborate system of land administration that was centered around the maintenance of land records that carefully registered the changes in ownership, tenancy rights, cropping patterns, even births and deaths in the land owning families. Maintained by the *patwaris*, an official of the land administration system who occupied the lowest rung of the multi-tiered structure, the records became the basis of the land taxation system. Tax assessments based on the records of ownership and land productivity were updated every ten years in a process called the *Settlement*. All revenue officers were trained to follow the elaborate *Settlement Manuals* used for assessing the amounts to be paid to the government. There were serious penalties for not paying the assessed amounts to the government.

The elaborate system of land administration was supported by an administrative structure that had the district deputy commissioner at the center. The DCs, more often than not, belonged to the Indian Civil Service, the ICS, which was described as the ‘steel frame” of the British administration In India. The colonial administrative structure brought security to the areas that had known a great deal of turbulence before the dawn of the British era. Most officials who served in the ICS were recruited from Britain. Those wishing to join the service had to compete in an entrance examination held in London. In the early 1900s Indians were allowed to enter the service. Balancing the ICS was the Provincial Civil Service, the PCS, whose officers were recruited locally. They occupied the lower rungs of the land and administrative systems but sometimes served as deputy commissioners.

The British did not stop with building of the physical infrastructure and with the establishment of a system of revenue collection to receive back from the beneficiaries some of what the state had spent. They recognized, as the Mughals had done before them, that the government should be brought closer to the people in order to deal with the problems only the state can deal with. Provision of some basic services by the state to the people and maintenance of law and order in the countryside were important state activities for the British especially in the areas – which was large part of the Punjab – from which the British recruited a significant

number of the personnel for their armed forces[23]. The state's functions in these areas were provided by the same system of government that managed land records and collected revenues. As noted above, the DC was at the center of this system[24].

When, in 1947, West Punjab became a province of Pakistan, it had a well functioning economy based on agriculture. It had an efficient system of land records and land taxation. The state was sufficiently decentralized to gauge peoples' requirement for basic needs and services. Some of these the government provided through the system of local government. Some were provided directly by the provincial administration. Once independence came, the new government could have built on this rich inheritance. That did not happen largely on account of post-independence political developments.

Political imperatives of economic progress

Another analytical underpinning of this study is the recognition of a close link between politics and economics, a fact often either underplayed or almost totally ignored by economists. This is a mistake since economic policy making does not take place in a vacuum; it is influenced by the political environment in which the policymakers function. That Pakistan's economy has been on a roller coaster ride was due in part to the off and on nature of external flows. It was also the result of the unsettled nature of Pakistani politics[25]. For the last sixty years, Pakistan has tried several different systems of governance that created much uncertainty amongst potential investors. In this context it is useful to mention the Indian experience. India was able to settle on a system of governance very early in its existence as an independent state. This happened in part because of the more developed nature of its political parties, in particular the Congress Party which ruled uninterrupted for almost five decades. It was also because the country was led by one man, Jawaharlal Nehru, for 17 years. Pakistan had neither a well organized political party nor did it have the good fortune of continued leadership during its formative years. The All India Muslim League, the party headed by Muhammad Ali Jinnah, was a one issue organization, interested in creating a state for the Muslims of British India.

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[23] For a detailed description of the recruitment practices followed by the British in India, see Shuja Nawaz, *Crossed Swords: Pakistan: Its Army, and the Wars Within*, Karachi, Oxford University Press, 2008.

[24] There is a rich literature on the administrative system established by the British during their rule over India. One of the more comprehensive accounts is Philip Mason, *The Men Who Ruled India*, New York, W.W. Norton, 1985. This is an abridged version of his two volume study that appeared under the sub-titles of *The Founders* (1953) and *The Guardians* (1954).

[25] For a discussion of the historical performance of the Pakistani economy see Pervez Hasan, *Pakistan's Economy at the Crossroads: Past Policies and Present Imperatives*, Karachi, Oxford University Press, 1998 and Shahid Javed Burki, *Changing Perceptions, Altered Reality: Pakistan's Economy Under Musharraf, 1999-2006*, Karachi, Oxford University Press, 2007.

Once that objective was achieved, the party had nothing more to offer. Jinnah died on September 11, 1948, just a year after the birth of Pakistan. Liaqat Ali Khan, his deputy for several years stepped forward to run the new country but did not command the kind of loyalty and following that had helped Jinnah in his campaign for Pakistan. India's better developed political institutions and continuity in leadership – Nehru served as prime minister from 1947 until his death in 1964 – contributed considerably to its impressive economic performance in recent decades. There has been remarkable consistency in public policies in India even when political power was in the hands of different political parties at the center as well as in some of the large states.

For nearly four decades, Punjab was politically even more disadvantaged than some other parts of the country's in particular Karachi – chosen to be the country's new capital – and southern Sindh. This weighted significantly on its economic performance from 1947 to the early 1980s. Transfer of power to a government that represented the citizenry, was supposed to shift the focus of public policy from revenue generation and security to development. In the case of the Punjab such a shift should have resulted on making use of the province's many endowments. However, the way the British partitioned their Indian domain, created many problems for the province. To begin with the partition brought about a vast movement of people that not only changed the socio-ethnic composition of the population of Pakistan. It also resulted in significant increases in the proportion of urban population. And it changed the country's political landscape.

An economic strategy based on the province's endowments would have relied on the strength of the agricultural sector and small scale engineering and would have also depended on international trade. At the time of independence, international trade contributed significantly to the growth of the provincial economy. As discussed in Part One, trade was mostly with India. It would have also used the system of local government to develop the countryside and to go for growth that allowed the productive employment of an expanding workforce. They did not happen for two reasons.

The first reason for the Punjab's diversion from the optimal path of development was the attitude of the first generation of Indian leaders to the creation of the new state of Pakistan. They sought to smother Pakistan economically. Of the several actions taken by New Delhi, two were of considerable significance for the Punjab. The first was to use Pakistan's decision not to follow other countries of the Sterling Area (today's Commonwealth) in devaluing its currency with respect to the American dollar. This happened in 1949 as a part of the British strategy to deal with the large burden of debt the country had built up to finance the war effort. India was unhappy at Pakistan's decision. It declared a trade war on its neighbor. With one stroke it closed the market for the Punjab's agricultural export. The economic cost of the

province of the Indian decision was enormous. Among the several adverse consequences of this Indian action was to turn the Pakistani Punjab inward. The role of trade as an engine of growth was lost. Along with the rest of the country, the Punjab opted for an import substitution strategy rather than a strategy that emphasized exports.

The second Indian action was to threaten to cut down the flow of water into the eastern rivers of the Punjab. It could do that since the way the line of partition was drawn left a number of canal head-works in India's control. The threat was treated seriously by the Pakistani government. Liaquat Ali Khan, the country's first prime minister, appeared in the balcony of his Karachi's house and, waving a clinched fist at the Indians, threatened war if New Delhi went ahead with its program. While the dispute between Pakistan and India was later resolved – in 1960 when President Ayub Khan and Prime Minister Jawaharlal Nehru signed the Indus Water Treaty – it gave the Pakistani leaders the opportunity to turn their attention away from agriculture and towards industry as the main engine of economic growth and security for the country.

There were some domestic dynamics also operating against the Punjab. One of these was the side-lining of the landed aristocracy in the policymaking process. Most of the Punjab landlords had been lukewarm to the idea of Pakistan. On the other hand, the members of the Muslim minority communities in the western and central parts of India enthusiastically supported the idea of Pakistan. They were nervous about their economic, political and social prospects in a Hindu dominated India. Once Pakistan was created eight million people from the Muslim minority provinces of British India poured into the new country, replacing six million Hindus and Sikhs who went in the opposite direction. The reins of power quickly passed into the hands of the leaders of the refugee community who later began to call themselves the *Muhajir.* Their political movement, the *Muhajir Qaumi Movement*, the MQM, was to later become a major political force in the country[26].

Also influential among the first generation of policymakers were the members of the former India Civil Service, the ICS, who opted for service in Pakistan. The *muhajir* officers were prominent among the group of 81 senior officers who opted to serve in Pakistan. Like their political masters, they too had a strong urban bias in the way they looked at economic policymaking. This bias further enforced the urban and industrial orientation of the first generation of leaders to govern Pakistan.

[26] In a book published in 1980, I developed the theme of the conflict between the refugees and Pakistan's indigenous population and suggested that conflict unsettled the country's politics and its economy for decades after independence. I called the refugees who came from India and settled mostly in Karachi or in the Punjab "the outsiders" and the host population "the insiders." See Shahid Javed Burki, *Pakistan under Bhutto, 1971-77*, London, Macmillan, 1980.

The consequence of these developments, both external and internal, was the adoption of a set of economic policies that did not favor the Punjab. It was not an explicitly stated intention of the first generation of Pakistani leaders to hurt Punjab's growth; that was the outcome of the series of policies that were adopted. Two outcomes of the policy stance were particularly relevant. The first was the focus on Karachi largely because the city, the second largest urban center in the country after Lahore at the time of independence, was chosen to be the country's first capital. Within a few years of Pakistan's creation it became Pakistan's industrial, financial and commercial center. It also became the country's largest city; a status it achieved when the country conducted its first population census in 1951. Equipped with an urban bias, the first few Pakistani administrations paid little attention to agricultural development which would have benefited the Punjab.

Some of these biases came to be corrected during the period of President Ayub Khan (1959-69). His administration took a number of decisions that began to change the regional imbalance that had occurred in the decade and a half immediately after independence. The country's capital was moved from Karachi to a place near Rawalpindi in northern Punjab. Ayub Khan gave the new capital the name of Islamabad, indicating the growing influence of the Islamist forces in the country. The industrial licensing system adopted by the government favored the dispersal of asset ownership. The sector of textile was particularly affected with spinning licenses issued for the establishment of only 12,500 spindles, significantly less than the optimum size of such units. Consequently a number of industrial centers emerged in the Punjab that began to challenge the prominent position held by Karachi. Faisalabad is an example of one such center.

The other major favorable development for Punjab's economy was the signing of the Indus Basin Treaty with India in 1960. It removed uncertainty. The "replacement" works undertaken to implement the agreement did more than replace the water lost to India. The area under irrigation increased significantly[27].

Punjab's establishment began to return to policymaking positions under President Ayub Khan as a result of a process I have labeled "political indigenization" in some of my earlier works[28]. However, even under Ayub Khan it was the landed aristocracy that gained access to decision-making. Nawab Amir Muhammad Khan Kalabagh, a large landlord from northern Punjab, led the move. The system of local government that went under the name of "Basic Democracies" helped the process of political rehabilitation of the landed community. It brought government close to the people, particularly in the countryside. It also politically re-empowered the large landlords.

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[27] For a detailed discussion of the Indus Water Treaty see Aloys A. Michel, *The Indus Water*, New Haven, Conn.: Yale University Press, 1967.

[28] I developed this hypothesis in my first book on Pakistan. See Shahid Javed Burki, *Pakistan under Bhutto, 1971-77*, London, Macmillan, 1980.

It was in part because of the return of this group to policymaking positions that conditions were created for the launch of Pakistan's first "green revolution" in the late 1960s when the administration provided full support to the farmers for adopting the newly developed high-yielding seed varieties. I have argued in another work, that the system of local government introduced by the Ayub Khan government played an important part in giving the farmers access to the new technology and government the inputs that were needed for its successful adoption[29].

The political strategy followed by Ayub Khan brought the large landlords back into policymaking positions. Looked at from the perspective of the Punjab's economic development, the most significant contribution made by public policy during the period of Ayub Khan was the encouragement provided to the farming community to adopt high-yielding wheat and rice seeds. Led by the middle-sized farmers, the "green revolution" that resulted from the introduction of these seeds brought about a quantum jump in the output of wheat and rice. A large, publicly funded Rural Works Program built roads, schools, clinics and community centers that further aided the farming community.[30]

However, the collapse of the Ayub Khan government in March 1969, the political turmoil that ensued and lasted for almost three years and the political rise of Zulfikar Ali Bhutto who took over the reins of Pakistan's government interrupted the revival of the Punjab economy that began under Ayub Khan. Although Bhutto's nationalization of large industrial, financial and commercial firms affected Karachi much more than the Punjab, the extension of the nationalization program to agro-processing industries adversely impacted the province's rural economy and its industrial development. It deepened the presence of the state in the rural economy. The government already had a significant control over agricultural marketing. It had acquired enormous as a result of powers. Now it created space for itself in agricultural processing. Along with other parts of the country the Punjab also suffered from the loss of private sector confidence. The private sector which had participated actively and enthusiastically as partners in the development model the administration of Ayub Khan had followed now pulled back and took the back-seat.

Two other policies of the Bhutto period had a direct bearing on the Punjab. The first was the nationalization of privately owned collages, a move that set back private entrepreneurship in this vital sector of education. The educational sector also suffered as the politicization of the student body brought violence to the large publicly run educational institutions. The second policy to affect the private sector were a series of regulations aimed at the welfare of the workers hired by large

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[29] See Shahid Javed Burki, " "in Robert D. Stevens, Hamza Alavi and Peter J. Bertocci (eds), *Rural Development in Bangladesh and Pakistan*, Honolulu, Hawaii, The University Press of Hawaii, 1976.

[30] I was appointed Director of West Pakistan Rural Works Program in the spring of 1965. I held that position for two years.

employers, defined as those hiring more than 10 workers. In a series of "foundation documents" issued by Pakistan People's Party, the political party created by Zulfikar Ali Bhutto after he left the administration of Ayub Khan, workers' welfare had a prominent place.[31] The labor reforms adopted in 1974 were the fulfillment of the pledge the party had made. These may have hurt the development of private industry but they created a political constituency for the PPP that has survived to this date.

It was only when President Zia ul-Haq began the process of sharing power with the civilians that a new political force in the Punjab began to acquire some salience. Mian Nawaz Sharif emerged as the most prominent leader of this new breed of politicians. Sharif and his brother Shahbaz, belong to a family that migrated from Amritsar, just across the border with India near Lahore. Their father set up an iron foundry business in Lahore which expanded and grew in size. The Ittehad Works located at Kotlakhpat, just outside Lahore, began to produce heavy machinery concentrating on the needs of modernizing agriculture following the advent of the green revolution. The Sharifs ploughed their profits into textile and sugar during the Ayub Khan era and became one of the more important industrial families in the country. Their increasing prominence brought them to Zulfikar Ali Bhutto's attention. The Ittehad Works was one of the many large industries that were taken over by his government in January 1972. Bhutto's nationalization persuaded the Sharifs that they had to be active in politics in order to protect not only their industrial interests but also give representation to the interest of the urban area, in particular the large cities. Their ambition was shared by a number of other influentials in the urban community. This constituted a significant transformation of Punjab's political landscape. Province's political structure finally began to catch up with its evolving economic character.

Since the late 1980s, Nawaz Sharif has repeatedly demonstrated his ability to mobilize political support for himself and his party. He was twice Pakistan's prime minister, the first time between 1990 and 1993 and again between 1997 and 1999. On both occasions he lost power because of disagreements on power sharing with the military. During his second tenure, Shahbaz Sharif, his younger brother, headed Punjab's provincial government as chief minister. It was under the younger Sharif that the rate of economic growth in the Punjab began to accelerate and overtake that of the country. The chief minister focused especially on the development of the urban economy as well as improving public services, in particular education. His particular contribution was to assemble a very capable team of bureaucrats who worked on economic matters under his personal direction. Most of the policies initiated by him in 1997-99 continued pursued by his successor.

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[31] For an analysis of these documents see Philip Jones, *The Peoples Party of Pakistan,* Karachi, Oxford University Press, 1998.

The return of the military in October 1999 brought about political change also in the province. First, provincial governance was largely the responsibility of the governor appointed by General Pervez Musharraf, Pakistan's fourth military president. Later, following the elections of October 2002, the province was governed by the Pakistan Muslim League (Quaid), a breakaway faction of the party headed by Nawaz Sharif. The PML(Q) chose Chaudhry Pervez Elahi, a cousin of Chaudhry Shujaat Husain, the party's leader to lead the Punjab as the provincial chief minister. Chuadhri Pervez Elahi, although a bitter political rival. Elahi continued to build a strong team of bureaucrats who guided the provinces economy and won the support of the donor community. Three donors in particular – the Department of International Development (DFID) of the UK --- the World Bank and the Asian Development Bank gave generous assistance to the province for policy reform. Under him, as noted, the province continued with the approach adopted earlier by Chief Minister Shahbaz Sharif. Elahi made one significant contribution to the design of economic public policy, provided by a group of donors and encouraged by his senior bureaucrats, the began to put forward "vision statements" concerning economic development. As we will discuss in a later part of the book, these became the foundation documents of two important provincial economic reports issued respectively in 2005 and 2007. These reports form the starting point for the analysis of this study.[32]

The Nawaz Sharif faction of the Muslim League, Pakistan Muslim League (Nawaz), emerged as the single largest political party in the Punjab in the elections held on February 18, 2008. It was able to form a coalition government in Lahore, first under Zulfiqar Ali Khosa a young politician and later under Mian Shahbaz Sharif, once the latter had overcome the legal obstacles that had been placed on his participation in the elections. After winning a seat in the bye-elections in June 2008, Sharif took over the command of the province. Before assuming this office he changed most of the department heads who had worked under his predecessor. This is where the situation stood in late 2008 as this report was prepared.

Decentralization for Development

For a couple of decades, the changes in the province's landscape have set the stage for its rapid economic advance, economic modernization and social improvement. Would that happen and how should that occur are the major issues addressed in this report. Before proceeding further, it might be appropriate to discuss one other aspects of politics – decentralization – since it is so central to the arguments developed in this study. It is now recognized by development practitioners that bringing government and public services closer to the people helps to promote

[32] The role played by foreign donors in the development of the economy in the period since the mid 1980s is an area worth analysis, perhaps by the Planning and Development Department.

economic development. Decentralization of administrative authority simultaneously focuses on fulfilling the needs and aspirations of the people and creating confidence in the state. One of the several legacies left by the British in Punjab was a functioning system of local government under the supervision of administrators belonging either to the Indian Civil Services or the Provincial Civil Service. After the departure of the British, Pakistan made several efforts to recreate a system of local government which better reflected its own situation. The most elaborate structure was created by President Ayub Khan, the country's first military leader. Called the Basic Democracies, it was a multi-tiered and interlocking system of government which involved both directly elected representatives of the people as well as government functionaries located at different levels of administration. The system worked well in delivering development to the people. However, its simultaneous use as an electoral college for the president and the members of the national and provincial assemblies brought it into considerable disrepute. The system was disbanded after the fall of Ayub Khan in March 1969.

Pakistan's third military leader, General Zia ul Haq, also established a system of local government, but his was more political than economic in its orientation. The new system was supposed to bypass the established political parties and have the military government interact directly with the people. This system also went into disfavor as the government headed by President Zia ul Haq became increasingly controversial. It was put in cold storage by the civilian governments that held power in the 1990s.

Pakistan's fourth military government has yet another system of local government which in its scope is even more far reaching than the basic democracy system under President Ayub Khan. The most notable feature of the new structure is to transfer executive authority from the bureaucracies to the elected representatives of the people. Members of the councils which forms the base of the system are directly elected by the people in elections held every four years. A new office has been created to centralize the executive authority in the hands of the elected people. Nazims and deputy nazims are now in place all over the country, having been elected by the councilors to their positions in two successive elections. The structure has many advantages and has several features which should make it into a system of governance most suited for addressing the problems local populations face in meeting their basic needs.[33]

[33] The Institute of Public Policy was commissioned by the Planning and Development Department to Study the performance of the system since its inception. Its report, *Assessment of Local Government System in Punjab: Policy Recommendations for Reform* was submitted to the government in June 2008.

As was to be expected, the new system has run into both political and bureaucratic opposition since it has created a new class of politicians who have the ability to challenge the power of the members of national and provincial assemblies as well as the bureaucracy. It would be unfortunate if the original scope of this system is diluted as a result of the opposition it is currently encountering. Instead there is the need to provide it with resources through the decentralization of the fiscal system so that people's needs for public goods can be fully met.

Conclusion

One conclusion that emerges from its quick analysis of Punjab's performance over the last six decades is that politics affected provincial economic development in a number of significant ways. The political dynamics that led to the creation of Pakistan as an independent state for the Muslims of British India left Punjab's establishment on the sidelines of the new political system. The establishment had been lukewarm to the idea of Pakistan – that the Muslims of British India needed a country of their own to protect their separate way of life. The Pakistan movement was led by the leadership that drew support from the Muslim communities that were in minority in several British Indian provinces. The Muslim majority area of the Punjab and the North West Frontier Province (the NWFP) were more confident of their future even after the British departed from India. Accordingly when Pakistan became a reality on August 14, 1947, the first generation of leaders were from the Muslim minority areas that had left their homes and properties in India and migrated to Pakistan. They had very different social, economic and political interests than the established leaders of the Punjab. The former were more educated, urban and interested in participatory form of governance than the original leaders of the Punjab. The leaders of the Punjab, on the other hand, were much more rural and traditional in their orientation. Consequently the direction of public policy in the economic arena did not favor the Punjab. Industrial development was given a higher priority over the development of agriculture; urban areas received greater attention than the countryside; Karachi overtook Lahore not only in terms of the size of its population but also became the financial, commercial and industrial center of the country.

Over time, however, the political disequilibrium that was created by the circumstances that led to and resulted from the partition of British India and the creation of Pakistan has been corrected and source of the social groups that had been sidelined have returned to the centre stage of politics. In the meantime demographic movements and rapid growth of the economy in recent years have created their own imperatives. All these developments need to be kept in mind as we begun to address the province's political future.

PART THREE

PUNJAB PROVINCE IN 2007-08

Punjab is now Pakistan's most rapidly developing province. Its GDP increased at the rate of 8 percent a year, a rate 12 percent higher than the national average in the 2002-08 period. The rate of population increase declined to below 2 percent and is expected to decline further. It is currently estimated at 1.8 percent a year. This means that income per capita over the last five years (2002-08) has increased at an impressive rate of 6.2 percent a year. This is the highest rate of increase in income per head of the population in the history of the province. But there were many problems with this burst in economic activity. It did not significantly affect the poor or improve income distribution. It worsened regional economic differentials. It did not seriously affect the size of the pool of the unemployed or under-employed. Rapid growth in provincial output did not translate into any of these positive results for the reason that the economic push was coming from investments in the sectors that do not provide long-term employment opportunities to the poor. Not only was there widening in the interpersonal gap, there was also a significant increase in the gap among the province's different regions. A recent study estimates that central Punjab, the most well-to-do region in the province has per capita income 20 percent higher than Western Punjab, the poorest region.[34] The growth rate was helped by large investments directed at meeting domestic demand (mobile telephony, for instance) and in real estate in the province's major cities. Investments in upper income housing, office buildings and shopping malls came in not only from the domestic sources but also from the outside. The Middle East in particular was the source of considerable amount of capital that moved into the real estate sector. What is therefore needed is a fundamental correction in the course of economic policy that, while maintaining the objective of achieving an average rate of growth of 8 percent in the provincial product over the next decade and beyond, it will also better serve the provincial citizenry. But there are several different directions in which the economy could move. This will depend on a number of factors by far the most important of which is the ability to obtain a reasonable amount of political stability and tranquillity. Also of importance is the content of public policy which could propel the province and the country towards rapid economic progress. In this part of the report, we will first give a brief overview of the state of the provincial economy and then indicate some of the strategies adopted over the last few years to increase the rate of growth.

[34] Ali Cheema, to be completed.

The state and characteristics of the economy

Pakistan does not estimate gross provincial products. The estimates that exist are based on assumptions about the contribution various provinces make to the different components of the national product. It is a safe assumption to make that Punjab accounts for 60 per cent of Pakistan's gross domestic product, slightly more than its share in the country's population. The provincial economy has grown at a rate slightly higher than the average for the Pakistani economy. According to the World Bank, the first of the four provincial reports it sponsored, "between 1991/92 and 2002/03, the provincial GDP of the Punjab increased in real terms at about 4.5 per cent a year, faster than the 4.1 per cent annual growth recorded in the rest of the country."[35] This means that the growth rate was almost 10 per cent higher than the national average. The gap is even wider if we compare Punjab's growth rate not with all of Pakistan, of which the province is a significant part, but with the rest of the country. The rest of Pakistan, with Punjab excluded, grew at a rate of only 3.7 per cent a year. Punjab's growth was 22 per cent higher than the rest of Pakistan.

Table 1
Punjab's Economy: Basic Facts, 2008

	Pakistan	Punjab	Non-Punjab Pakistan	Punjab's share
Population 1/ (million)	162.4 2/	93.13	69.27	57.4
Urban (million)	58.95	30.84	25.76	52.3
GDP (mp) (Rs billion)	9,024 3/	5427	3597	60.14
GDP $ billion	148	89	59	60.14
GDP per capita	925	990		
GDP growth, 1991-92 to 2005-06	4.5	5.0		

1/ Extrapolating form World Bank's estimate for 2004 (152.1 million) at a rate of growth of 2.2 per cent a year. See World Bank, *Punjab Economic Report*, March 2005.

2/ Extrapolating from 1998 estimate of 73.6 million at a growth rate of 2.4% from 1998 to 2004 and 2.2% from 2004-07. See Annex 1.

3/ Extrapolated at 18% growth of the estimated 2004-05 product in the *Economic Survey, 2005-06.*

As shown in Table 2, the structure of Punjab's economy is not much different from that of all of Pakistan. Again, this is not surprising since Punjab is the largest component of the country's economy. Even then, there are some differences worth noting. Punjab is much more agricultural than the whole of Pakistan, largely because of the concentration of large scale industry and several other modern service sectors in Karachi, the country's largest city. Karachi's influence also shows up in Punjab's lower share of transport, storage and communication sectors. The same is true for the sectors of trade, finance and insurance. However, this structure is changing as a result of the differences in the rates of growth of the various parts of

[35] The World Bank, *Punjab Economic Report, 2005,* Washington D.C. 2005.

the economy. It is likely to change considerably if the rate of economic growth picks up – a subject we will take up later in this study.

Table 2
Structures of Pakistan and Punjab Economies, 2002-03
(% of GDP)

Sector	Pakistan	Punjab
Agriculture	23.6	20.3
Manufacturing	15.0	25.7
Large Scale	(10.7)	(9.6)
Small Scale	(5.4)	(6.5)
Services		**54**
Mining and Quarrying	1.9	0.2
Construction	2.3	3.6
Electricity and Gas Distribution	2.7	2.6
Transport, Storages and Communications	13.6	9.6
Wholesale and Retail Trade	17.5	15.9
Finance and Insurance	3.2	2.2
Ownership of Dwellings	3.0	5.9
Public Administration and Defense	6.4	6.2
Other Services	10.8	11.0

Sources: Table 1 above.

Table 3
Change in the Structure of Punjab's Economy
(% GDP)

Sector	2002/03	2007/08
Industry	16.3	25.70
Agriculture	27.0	20.35
Services	56.7	53.95

Source: See Table 1 above.

As shown in Table 3 below, there was a significant structured change in Punjab's economy over the last half a decade. This suggests that the output of the industrial sector has outpaced that of other sectors of the economy. "Services" was the most rapidly growing part of the provincial economy. This is not necessarily a positive development if the growth in this sector is mostly the result of a large number of migrants from the rural areas taking up low income jobs in the low productivity part of the economy. While this has certainly happened in Punjab's case, there is also some evidence – mostly anecdote at this point – of the growth of some of the modern components of the service sector such as banking, information technology, education, health services and communications.

The growth of the economy in recent years – from 2002-03 in particular – has been impressive. Much was made by the policymakers about the pickup in the economy's growth rate not only in the Punjab but in the entire country. In his political memoir, former president Pervez Musharraf suggested that the economic and social development policies pursued by his regime have taken the country on to the

trajectory of growth on which several other Asian countries are already traveling.[36] Behind this claim there was certainly the belief that the structural rigidities that had kept the economy under-performing were removed and that structural changes were made that would ensure the sustainability of the current growth rate over decades to come. Unfortunately, these claims were exaggerated. The structures that had inhibited rapid growth in the past remained in place. In fact starting with late 2007 the Pakistani economy plunged into a deep crisis as the balance of payments deteriorated, fiscal deficit increase, prices rise accelerated and the rate of GDP began to decline. It would take a different approach to public policy making for the economy to climb on to the high growth trajectory. One theme developed in this study is that it is indeed possible to achieve this goal but it would require a great deal of intelligent effort.

Table 4
Growth Rate of Real GDP: Punjab and Pakistan: 1991/92-2006/07

(Per cent per annum)

	Punjab			**Punjab GDP**	**Rest of Pakistan**	**Pakistan Overall**
	Agriculture	**Industry**	**Services**			
1991/92	11.5	7.4	8.5	9.2	5.6	7.6
1992/93	-6.9	5.5	4.9	1.4	2.9	2.1
1993/94	3.6	4.4	4.5	4.2	4.5	4.4
1994/95	11.7	2.4	5.3	6.4	3.3	5.1
1995/96	6.3	8.6	5.2	6.3	7.0	6.6
1996/97	-0.6	0.4	4.0	1.8	1.6	1.7
1997/98	6.3	4.2	3.1	4.3	2.5	3.5
1998/99	1.5	5.9	5.0	4.2	4.2	4.2
1999/00	7.4	2.3	4.9	5.0	2.5	3.9
2000/01	-2.1	3.4	4.2	2.2	2.1	2.0
2001/02	2.2	5.5	4.8	4.3	2.0	3.1
2002/03	7.1	3.2	6.1	5.8	3.0	4.7
Average (1991/2002)	4.0	4.4	5.0	4.6	3.4	4.1
2003/04	0.8	14.7	5.56	8.0	6.7	7.5
2004/05	10.4	12.4	6.6	9.4	8.0	9.0
2005/06	0.9	5.7	6.3	7.4	5.6	5.8
2006/07	6.3	7.4	8.6	7.8	6.2	6.8

Source: The World Bank, *Pakistan: Punjab Economic Report: Towards a Medium-Term Development Strategy*, Washington, D.C., 2005, p. 16. For 2003/06, author's estimates.

[36] Pervaz Musharraf, *In the Line of Fire: A Memoir*, New York, Simon and Schuster, 2006, Chapter 19.

Sustainability of the current growth notwithstanding, there cannot be any doubt that the recent pickup in the economy has had a positive impact on the incidence of poverty.

The World Bank estimated for the 2001-02 that the incidence of poverty in Punjab was about 9 percentage points lower than for all of Pakistan, slightly more than 34 per cent of the total population compared to more than 37 per cent for all of Pakistan. In other words, Punjab has 32 million of its 93 million people living in poverty compared to nearly 60 million for all of Pakistan. This means that 53 per cent of the country's pool of poverty was located in Punjab. As is the case for all of Pakistan, the incidence of poverty declined steadily over a ten year period, from the mid-1980s to the mid-1990s. In the mid eighties, close to one-half of Punjab's population lived in absolute poverty, a proportion somewhat higher than that of all of Pakistan. As a result of the steady decline in the incidence of poverty, by the mid-nineties, the proportion of the poor in all of Pakistan declined by ten average points. The decline was more pronounced for Punjab. However, over the next eight years, the incidence of poverty began to increase, reflecting the slowdown in the rate of economic expansion. The increase was less in the case of Punjab, with the proportion of the poor increasing by six percentage points compared to an increase of eight and a half points for all of Pakistan. There was a sharp decline in the incidence of poverty in Pakistan, including Punjab, as the rate of economic growth began to pick up in 2002-03. The decline was more rapid for the Punjab than for the rest of Pakistan. In 2007-08, the incidence of poverty in the Punjab decline to 27 percent. (See Table 5 below).

Table 5
Poverty Trends: All-Pakistan and Punjab:
1983/84 – 2001/02

(Per cent of Population)

	1983/84	1987/88	1990/91	1993/94	1998/99	2001/02	2007/08
All-Pakistan	46.0	37.4	34.0	28.6	32.6	37.3	31.4
Punjab	48.5	40.4	35.9	28.2	32.4	34.1	27.0
Rural:							
All-Pakistan	49.3	40.2	36.9	33.4	35.9	41.6	
Punjab	50.5	42.1	38.5	31.9	34.7	37.0	
Urban:							
All-Pakistan	38.2	30.7	28.0	17.2	24.2	26.4	
Punjab	43.6	35.6	29.4	18.4	26.5	27.0	

Source:

The World Bank for 1983-84 and author's estimates for 2007-08.

World Bank staff estimates based on various HIES and PIHS. Estimates for 2001/02 are preliminary. See the Source cited in Table 1.

Keeping with the trends in other developing countries, the incidence of poverty is much higher in Punjab's countryside than in its towns and cities. The distribution of population according to income groups is shown in Table 6 below. Of the lowest 10

per cent in the income distribution scale, slightly more than a fifth live in the cities while the remaining almost 80 per cent reside in villages. Of the top 10 per cent, the share of the urban areas is 48 per cent compared to 52 per cent for the countryside. There is a ten percentage point difference in the incidence of poverty between rural and urban populations.

Table 6
Expenditure and Urbanization in Punjab, by Decile: 2001/02

	Decile										Overall
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	
Urbanization (%)	21.2	25.3	17.6	25.8	24.9	29.1	32.0	32.4	32.8	47.9	28.9
Expenditures (Rs)	398	525	607	682	758	855	967	1,116	1,361	2,276	954

Source: World Bank staff estimates based on 2001/02 PIHS. See the Source cited in Table 1 above.

What has happened to the incidence of poverty in recent years? Since the rate of GDP growth picked up significantly, the impact on poverty should have been quite significant. The government claims – a claim contested by some analysts – that there has been a dramatic decline in the level of poverty since 2001. According to *Pakistan Economic Survey, 2005-06*, "the percentage of population living below the poverty has fallen from 34.6 per cent in 2001 to 23.9 per cent in 2004-05, a decline of 10.6 percentage points. In absolute numbers the count of poor persons has fallen from 49.23 million in 2001 to 36.45 million in 2004-05. The percentage of population living below the poverty line in rural areas has declined from 39.26 per cent to 28.10 per cent, while those in urban areas has declined from 22.69 per cent to 14.9 per cent. In other words, rural poverty has declined by 11.16 percentage points and urban poverty [has] reduced by 7.79 percentage points."[37]

Table 7
Poverty and Vulnerability in Punjab (Per cent of population)

	Headcount poverty	**Below 125 per cent of poverty line**	**Below 150 per cent of poverty line**
Rural	37.0	64.5	77.7
Urban	27.0	60.6	73.1
Overall	34.1	63.4	76.3

Source: Staff estimates based on 2001/02 PIHS.

Since the economy in the five year period between 2002 and 2007 grew by an average rate of 7.0 per cent, a 10.6 per cent point reduction implies a poverty-reduction-to-GDP-increase elasticity of 1.5, a larger number than observed in other countries. I have used this elasticity of 1.5 to estimate the changes in the incidence of poverty and the number of people who are poor in the Punjab. These estimates are presented in Table 8 below. Even these suggest an impressive performance.

[37] Pervez Musharraf, *In the Line of Fire: A Memoir*, New York, New York, Free Press, 2006, Chapter 19, "Kick starting the economy."

According to them, the number of people living in poverty has declined by 5 million since 2001/02, with a significant reduction taking place in the urban areas. The incidence of urban poverty is less than 15 per cent, twice as high as the incidence in the countryside.

Table 8
Spatial Distribution of the Poor in Punjab
(Million)

	1983/84			1993/94			2001/02			2004/05		
	Popu-lation	Poor	%	Popu-lation	Poor	%	Popu-lation	Poor	%	Popu-lation	Poor	%
Rural	35.75	18.04	50.5	45.73	14.84	31.3	54.26	20.0	36.9	58.7	17.90	30.5
Urban	14.25	6.21	43.6	19.87	3.66	18.4	26.05	7.3	28.0	30.0	4.45	14.8
Population	50.0	24.25	48.5	65.6	18.50	18.4	80.31	27.3	34.0	88.7	22.35	25.2

Sources: For 1983/84, 1993/94, and 2001/02, see footnote in Table 3. Author's computation for 2005/05.

Although the performance in terms of a reduction in the incidence of poverty is impressive when viewed from the perspective of the proportions in total population, it is worth emphasizing that even with lower percentages of poor in total population, their number is considerably higher compared to the situation that prevailed in the mid-1990s. Then there were 18.5 million poor people in the province, 3.7 million in the towns and cities, and 14.8 million in the countryside. Eleven years later, all three numbers have increased. The number of the poor in the province's villages has increased to 17.9 million from 14.8 million, that in the urban areas to 4.5 million from 3.7 million, and the total to 22.4 million from 18.5 million. When we look at this situation we should recall that at the time of the partition of Punjab, the province had a population of 19 million people. Now it has a population of the very poor that is much larger in size, by as much as 3 million people.

One final point about the character of the poor in the province and this also relates to their special distribution. The ranking of living standard, poverty and social indicators generally follows a North-South pattern in the province. Income and non-income indicators are better in the northern part of the Punjab, followed by the province's central part. The province's southern part is the poorest. (See Table 9 below.) This is a somewhat surprising finding since most of the industry and modern sectors of the economy are located in the province's central parts.

Table 9
Poverty Headcount Rate: Regions of Punjab: 1998/99 – 2001/02
(Per cent of population)

	1998/99			2001/02		
	Urban	Rural	Overall	Urban	Rural	Overall

Northern Punjab	18.3	29.6	26.2	20.1	33.8	29.8
Central Punjab	25.2	32.1	29.9	24.6	35.3	31.8
Southern Punjab	36.1	40.6	39.7	38.7	40.8	40.4
All-Punjab	26.9	34.7	32.4	27.4	37.0	34.1

Source: 1998/99; FBS (2002), 2001/02: The World Bank staff estimates based on the 2001 2001/02 PIHS.
See Table 3 for the study from which this table is derived.

There are, of course, many reasons for the persistence of poverty in such large numbers in many parts of the developing countries. Among the many cited reasons three are particularly important: demography, low level of investment in human resource development, and lack of job opportunities in various parts of the economy. All three play their roles in keeping more than 20 million people poor in the Punjab. The rates of population growth have been high which leads to closely spaced children in large families. Parents don't have the time to tend to all the children in the household; selection for attention is based on sex, girls get less attention than boys and therefore have a higher incidence of morbidity and mortality compared to their male siblings. They are also poorly educated. This produces, for the next generation, poorly literate women in poor health who continue to produce a large family and the cycle repeats itself.

The World Bank's 2005 report on the economy of the Punjab suggested that a 6 to 7 per cent rate of growth in the province's gross domestic product was required in order to keep up with the need to create jobs for a rapidly growing population. According to the Bank, one percentage point increase in the provincial GDP resulted in an increase of 0.5 per cent in the number of people employed. The recommended rate of growth therefore would create an additional million jobs a year, the number required to keep the rate of unemployment at no more than 5 per cent of the workforce.[38]

Table 10
Punjab Labour Force and Employment

Year	Percentage of labour force in			Percentage of labour force in			Percentage of labour force in		
	Agriculture	Industry (Urban)	Agriculture	Agriculture	Industry (Urban)	Agriculture	Agriculture	Industry (Urban)	Agriculture
1975	7.4	35.2	57.4	69.1	15.7	15.2	55.6	20	24.4
1979	6.4	35.6	58	63.5	19	17.5	51.6	22.5	25.9
1985	8.6	34.5	56.9	62.5	18.2	19.3	49.1	22.2	28.7
1991	9.4	29.1	61.5	62.6	17.4	20	48.9	20.4	30.7
1995	5.7	29.8	64.5	60.7	16.7	22.6	47.2	19.9	32.9
2000	6.5	32.1	61.4	66.4	13.2	20.4	50.2	18.3	31.5
2002	5.7	34	60.2	57.9	17.5	24.7	42.8	22.2	34.9
2004	7	31.3	61.7	60.1	17.4	22.5	45.2	21.3	33.5

[38] Government of Pakistan, *Pakistan Economic Survey, 2005- 06*, Islamabad, 2006, p. 55.

2006	7.2	32.1	60.7	59	17.4	23.6	44.4	21.5	34.1

Source: *Social Development in Pakistan 2006-07: Devolution and Human Development in Pakistan*, Social Policy and Development Centre.

As suggested in an earlier chapter, if the provinces are to play an important role in bringing dynamism to the national economy and for accelerating the rate of economic growth for the country as a whole, they must carefully plan for their own development. This chapter has five sections. The first provide a quick overview of the history of planning in Pakistan and suggests why the process, having begun in some earnest in the early 1960s, was downplayed even when the role of the state expended in the economy expanded in the 1970s. The second section provides brief overviews of various planning and vision exercises conducted more recently both by the federal government as well as the government of Punjab. The third section suggests some public policy choices related to the realization of the visions that have been put forward in the last few years as well as the one laid out in this study.

Planning by the public sector

The task of economic planning has remained with the central government ever since Pakistan embarked on using this tool for accelerating growth. Initially the analytical underpinning of the five year development plans was based on the methodologies developed by the planners in the Soviet Union and adapted by their Indian counterparts. The plans concentrated their focus on the development of the public sector with only marginal attention given to private enterprise. This made sense for the both the Soviet Union and India. In both countries, the state was to lead the development effort with private sector playing only a secondary role. For the state, the plans were concerned with making investments in the sectors and activities that were to contribute to the acceleration of growth. Once these were identified, an input-output matrix specified the materials and machines needed to obtain the primary targets. This type of analysis yielded secondary targets for the state to pursue.

Pakistan turned to medium term planning after a couple of false starts. According to Russell Andrus and Aiziali Mohammed who wrote the first major work on the country's economy, "to start with, the Six Year Development Plan inaugurated in 1950 as part of the Colombo Plan was a collection of projects and its targets apparently consisted of a statement of intentions and possibilities. With the Two Year Priority launched in 1952, the emphasis changed and there was at least an implicit undertaking that specific projects included in it would executed by Government in association with private enterprise, if possible, and without private enterprise if necessary."[39]

[39] J. Russell Andrus and Azizali F. Mohammed, *The Economy of Pakistan*, London, Oxford University Press, 1958, pp. 163-64.

Pakistan adopted the Indian style of planning beginning with 1955 when the First Five Year Plan was prepared by the Planning Commission, a body set up in line with the one that had undertaken the same activity in India. The Five Year Plan draft issued in May 1958 and covering the five year period ending 1960 carried the approach adopted in the earlier plans. "While nearly two-thirds of the monetary expenditure under the Plan is to by Government, this is explained by the fact that a large proportion 'is required by for the provision of social overhead capital and services' and in the case of industry is directed to sectors where 'private enterprise is not attracted because of their technical complexity, high capital requirements or relatively profitability...(and in) some geographical areas …for lack of facilities'. For the rest it is required that 'private enterprise has to play an important roale in the implementation of the Plan'"[40].

However, the implementation of plans needs political and bureaucratic discipline. These were not available in the chaotic days that followed independence. Pakistan had to wait for the advent of military rule to acquire the mindset and the discipline that makes planning and implantation of plans possible. The Second Five Year Plan that covered the period between 1960 and 1965 and the Third Five Year Plan that dealt with the five years that followed were highly successful in achieving their growth goals. But, the Forth Plan (1965-70) ran into many problems, some of which resulted from the success of the previous plans. There was an intense debate between the two "wings" of the country – East and West Pakistan – about the allocation of public funds that could not be amicably resoled. In fact, this argument laid the basis of the politics that led to the break-up of Pakistan in December 1971.

In late December 1971, the military having suffered an ignominious defeat at the hand of the Indian army, was persuaded to leave the political field to politicians. Led by Zulfikar Ali Bhutto, the chairman of the newly founded Pakistan People's Party, the country was set on a course of dramatic structural change in its economy. The role of the state was expanded through the nationalization of large industries, financial institutions and commercial enterprises. This was followed by the commitment of enormous amounts of public funds for increasing the presence of the public sector in manufacturing. The Pakistan Steel Mill, located near Karachi, was one of the many large industrial projects that resulted from this rethinking in the role the public sector in economic development. However, even while working to increase the presence of the public sector in the economy, the Bhutto regime eschewed serious development planning. There was an irony in this. Having increased the presence of the state in the economy, Bhutto would have done well to restore planning as a way of instilling discipline in the management of public resources.

[40] *Ibid.* p. 164.

Bhutto trusted his own instincts rather than professional scrutiny and advice in allocating public funds for large projects. The country did return to the preparation of five year development plans under the military regime headed by General Zia ul-Haq but these remained simply formal exercises. The Fifth Five Year Plan (1972-77) was prepared by the Planning Commission which had lost the power it had under President Ayub Khan. Dr Mubashir Hasan, Bhutto's powerful minister of finance, expanded the power of the ministry he headed. This was to set a tradition that was to be followed for decades.

After the government gave up the preparation of five year development plans, the role of the Planning Commission in the management of the economy declined. As already noted, the Ministry of Finance usurped the space the Commission had occupied in the 1960s. The Planning Commission was left with the task of evaluating projects – much the same role performed by the Planning and Development Departments in the provinces – and even in this area its role was at best perfunctory. Under President Pervez Musharraf, the Ministry of Finance accumulated even more power than was the case in the decades of the 1980s and 1990s. This happened in part because the second person to hold the office of prime minister during the eight years of the military rule was allowed to combine the offices of the prime minister and the minister of finance. Under the arrangement the prime minister's secretariat was to acquire most of the powers that resided in the Planning Commission during the period of Ayub Khan. In terms of articulating a strategy for development, the Commission was allowed to write and publish a number of "vision statements" but these did not acquire any operational significance. The most recent of these was made public in 2007 and will be discussed below[41].

Even after the country gave up "five year development plans" as a device for guiding both public and private sectors in carrying out their different economic roles, Islamabad continued to lay down the goals for the country. The provinces were expected to do planning only for the public sector. Even in the public sector, most of the attention was confined to the cost benefit analysis of the projects financed by the government. This shouldn't have been the case since the constitution adopted in 1973 allowed the federating units considerable operational autonomy. The tendency to concentrate power in the hands of the federal government was especially pronounced when the military was in power. For obvious reasons, notwithstanding the provisions in the constitution that provided a fair degree of provincial autonomy, military leaders preferred to concentrate power in their hands. In that respect President Pervez Musharraf, even before he declared a stage of emergency in the country on November 3, 2007, had allowed somewhat greater space to the provinces.

[41] Government of Pakistan, *Vision 2030*, Islamabad, Planning Commission, August 2007.

In the early 2000s the Punjab set out to define its economic priorities in light of its own objectives. As discussed below, it issued a vision statement in 2004 and followed it up with two detailed analyses of this vision could be realized. In addition to these, starting in 2004, Chaudhary Pervaiz Elhahi, the then chief minister of the Punjab, began to issue pre-budget statements indicating the progress the province had made with respect to the 2004 vision. The Planning Commission in Islamabad also adopted the “vision statement” strategy in presenting its views on how Pakistan could improve its economic and social situation in the years ahead.

Various vision statements of recent years

Punjab's Vision, 2020[42]*:*

The government that held the reins of power in the province from 2002 to 2007 developed a vision for the future. It was presented in 2004 in the form of a document that carried that title. The aim was to transform the Punjabi society. "The vision would mean that fifteen years down the road, by 2020, Punjab would be fully literate, fully employed, highly educated, skilled, talented, tolerant, culturally sophisticated, internationally connected and reasonably well off healthy society," said Chaudhary Pervaiz Elhah, then the provincial chief minister, This impressive outcome would be achieved by doubling the provincial gross domestic product every eight years, reaching $2000 in terms of income per head of the population". This target was presumably in constant 2004 dollars. With this increase in GDP would come a significant change in the structure of the economy.

The province "will have an excellent educational system, world class infrastructure with modern urban centers, a high value adding agriculture sector and a smart, small and efficient government."[43] High value added agriculture was not the only real sector identified for achieving a high rate of growth. In fact, growth was to be the result of "unleashing the potential of the four main growth pillars of our economy – agriculture, manufacturing, minerals and natural resources and the services sector." In other words, the growth of the economy was to be balanced, spread over the entire economy. This, as we will argue later in this study, was too broad a scope for bringing about change; what was required was a more selective approach, with the government using public policy in a few well chosen areas.

The vision was not presented as a plan that identified the sources of growth and the precise role the government proposed to play in achieving these ambitious goals. The section titled "long-term strategies" simply listed its seven components – urban, rural, human resource, infrastructure, cluster development, government regulation, and development finance[44] – without detailing how they would contribute to the realization of the growth targets.

The vision directly addressed the issue of poverty but not that of income distribution. This was to be done by significantly increasing the number of jobs created by the provincial economy and by improving the provision of basic services to the people in both rural and urban areas. "In the medium term [the] government has decided to focus on poverty reduction as [its] prime goal. It will be our overarching objective to

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[42] Chaudhry Pervaiz Elahi, *Punjab's Vision 2020: Pre-budget policy address*, Government of Punjab, June 15, 2004.

[43] *Ibid*,. p3.

[44] *Ibid*., p. 4.

improve the lives of the people by improving their incomes and improving the delivery of public services. This twin objective requires that we significantly enhance the capacity of the economy to create jobs on the one hand and improve the state's capacity to deliver public services on the other." There was an implicit recognition that the high level of growth in the period since 2002, had not created new jobs in the number needed to deal with the problem posed by persistent poverty. "It has been estimated that if the growing trend and poverty and unemployment in the Punjab has to be reversed, then the Punjab economy has to create at least one million new, sustainable and permanent jobs every year." This will mean a doubling in the rate of job creation of previous years. As we will discuss in the context of a later pre-budget statement the same chief minister the provincial government significantly revised up wards the number of jobs the economy had created since the rate of growth in the provincial GDP picked up.

The vision also laid considerable emphasis on letting the private sector play the leading role in the economy. The government was to remain on the sidelines in terms of direct involvement in managing the economy, limiting its role in regulating the private sector so that, in addition to contributing to the province's growth and development, it also advanced social growth. As to what kind of regulatory role the government was to play was left to be articulated by the first Punjab Economic Report, published in 2005. (See below.) Notwithstanding the leadership role assigned to the private sector, the government had to step in to aid the task of job creation. The government believed that the private sector by itself would not be in a position to create the number of jobs needed. Therefore, "as a target I have instructed that 15 per cent of the new one million jobs be created in the public sector by filling [the] gaps in [the] areas where public service delivery is deficient,." said the chief minister[45]

Punjab Economic Report, 2005[46]*:*

While the Chief Minister of the province continued to present in his annual budget addresses new ideas for achieving the goals he had laid down in the original vision statement, his government turned to some outside agencies to spell in detail the strategy the government should follow. A multi-agency report prepared by the World Bank, the Asian Development Bank and the UK Department of International Development and published in March 2005 presented a detailed blue print the province should pursue to reach the vision goals.

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[45] *Ibid*. p. 7.

[46] The World Bank, *Pakistan: Punjab Economic Report: Towards a Medium-Term Development Strategy*, Report, No. 239373-PAK, Washington DC, March 31, 2005, p.7.

The Punjab Economic Report, 2005 developed the substance of the strategy aimed at achieving the goals set out in the 2004 Vision statement. It identified five pillars for public policy: (i) improving governance, (ii) reforming the financial management system, (iii) developing an environment for private sector-led growth, (iv) improving public service, and (v) reducing the provincial economy's vulnerability to shocks.
The World Bank study followed a simple model to develop a more detailed strategy. It built on the markers laid down by the 2004 vision statement: that a million more jobs will need to be created to address the problem of poverty and that the private sector will need to be put on the commanding heights of the economy. How fast will the economy have to increase is output in order to create a million new jobs, asked the authors of the Bank's report? "In the decade until 2001/02, an increase of 1 per cent in the estimated provincial gross domestic product (GDP) of the Punjab was associated with an increase of 0.55 per cent in employment. If the same relationship holds in the future, the GDP of the Punjab will have to grow at 6.2 percent a year in real terms. Since the government's aim is presumably also to significantly reduce underemployment, a target GDP growth rate of 7 per cent a year would not be unreasonable... This rate is well above the 4.4 per cent a year achieved during the past decade, and will require changes in the technological framework of the provincial economy".

The report presented a somewhat different strategy from the one in the Vision 2004 statement. The Vision statement emphasized moving the economy towards non-agricultural sectors. The PER, 2005, in picking the sectors for public policy attention, focused a great deal of its attention on the sector of agriculture. The sector continued to employ 40 per cent of the province's work force while its contribution to the provincial GDP was only 20.4 per cent. This meant that the level of productivity per worker in agriculture was one-half that of the workers in the non-farm sectors of the economy. It would not be good economic policy to increase the absorption of workers in agriculture without changing the sector's structure, moving it towards the production of more value added crops. This was old theme in most economic writings on Pakistan. It had been recognized for a long time that the cropping pattern was not doing justice to the province's rich endowment, particularly in the form of a well developed system of irrigation. Even though this was an old theme, the report traversed some new ground. It identified in some detail the factors that contributed to the impressive growth in agricultural output – over the previous 20 years, the output of Punjab's agriculture increased at around 4 to 5 per cent a year, higher than the average for Pakistan as well as South Asia – growth was produced by increasing the use of inputs. "Between 1970-2003, input growth accounted for one-half of growth in output, while total factor productivity (TFP) growth accounted for the remaining one-half, with technical change, infrastructure, and education being the major drivers of TFP growth."[47]

[47] *Ibid.*, p. 43.

Much of the increase in the use of inputs was because of the opportunities created by the adoption of the "green revolution" technologies starting in late 1960s. However, this opportunity was now largely exhausted., "with 80 per cent of the land irrigated, over 90 per cent of the area of major crops under modern varieties, and fertilizer consumption of over 100kg/ha." Also, the way the farmers had used chemicals and water for irrigation had seriously compromised the quality of the soil. It had also contaminated the province's river and canal systems. "…it is estimated that in the absence of resource degradation, productivity growth in the Punjab would have been 42 per cent higher than the actual growth in the 1970-1990s."[48] The report provided evidence of this lost opportunity by providing comparing yields in the Pakistani Punjab with the Indian Punjab and Egypt.

The authors of the report drew two important public policy conclusions from this analysis of the growth of agricultural output and how it had been produced. One, there was an urgent need to improve the way water and chemicals were used by the farmers. This would need research, education and investment. And two, there was the need for the design of public policy to create a structure of incentives for moving the farming community towards greater production of high value added output. The latter strategy would have three important consequences, all of them positive. It would create more productive jobs in the farming sector. It would help to improve incomes in the rural areas. It would earn the country significant amounts of foreign exchange at the time when the growing import-export earnings gap was creating a large burden for the national economy. As we will discuss below, the theme of low levels of productivity was picked up in the Punjab Economic Report 2007.

One major problem with the World Bank report was that in estimating the rate of GDP growth the province must aim for in order to meet the target of creating one million additional jobs, it did not factor in major structural changes in the economy. Such a change – as this study will argue – should raise the employment elasticity from 0.55 per cent to perhaps 0.65 per cent. In other words a rate of growth of 7 per cent should result in increasing the rate of employment increase to 4.5 per cent from the 3.5 per cent increase assumed by the Bank. By raising employment elasticity, public policy could achieve full employment sooner than the target set forth in the Vision 2004 statement.

The 2005 report singled out the area of government regulation is ripe for reform. At this time the public sector is involved in regulatory work accumulated over several decades. Some of the regulations are now redundant while some other that have become necessary because of globalization and the changes in a number of

[48] *Ibid.*, p. 44.

unwelcome in the physical environment have not been incorporated. Labor laws present one example of the way regulatory system has evolved over time and the way it is hindering the modernization of enterprises. “Many firms choose to remain small rather than have to deal with the complexity of dealing with as many as 27 different labor laws that are applicable on firms registered in the formal sector.” [49] One result of the regulatory burden was that Punjab has not developed enterprises that can become competitive in the global market. If this continues, the province will not be able to take advantage of the opportunities that are becoming available because of the restructuring of the international industrial production system. We will develop this theme in a later chapter.

The report took some not – but enough – of the role towns and cities could play in developing the provincial economy. “An important source of sustained economic expansion for the province could be the development of cities supported by industry clusters, as growth engines. In addition to the million plus cities of Lahore, Faisalabad, Rawalpindi, Multan and Gujranwala and their adjoining areas, the Punjab has 10 other cities with over two hundred thousand residents, which could potentially serve as mini-growth centers for the regional and provincial economy.” It used the example of Sialkot for what medium sized could achieve in terms of developing clusters of industries that had become competitive in the global economy. This had happened by developing the skills the city possessed and building an industrial base around it. This is one type of approach this study will recommend in a later chapter.

Pre-Budget Address of the Chief Minister, 2006[50]*:*

The Chief Minister delivered the pre-budget address for the financial year 2006-07 on June 13, 2007. As was the case in the previous years, the chief minister took staff of economic and social situation in the province in the context of the vision statement he had presented two years earlier. In this address he provided details from labor force survey the government had carried out earlier to estimate the number of jobs created by the economy since the rate of GDP growth picked up in 2002. In the years 2004-06, the economy created 3.5 million jobs, 50 per cent more than the target set forth in the Vision statement. But the major increase in employment happened in the agriculture sector which accounted for 60 percent of the additional jobs. The sector of services was responsible for 20 per cent, manufacturing 14 per cent and construction related industries 6 per cent. In agriculture job creation was in line with the structure of the sector. The crop sector accounted for 58.6 per cent of the additional jobs, in line with its share in total employment. The livestock sector

[49] *Ibid.*, p. 33.

[50] Chaudhry Pervaiz Elahi, *Pre-Budget Policy Address, 2006*, Lahore, Government of the Punjab, June 13, 2006.

created another 40 per cent of the additional changes which was also in line with its share. What these numbers show is that the even though the economy had grown rapidly during the year, there was no change in its structure. This was not in keeping with the goals of the Vision 2004 statement.

The chief minister drew considerable comfort from the change in the province's financial situation. He pointed out that whereas in 1999-2000 the annual development plan of Rs 13 billion was entirely financed from domestic and foreign loans since the province's revenues were entirely consumed by current expenditure. In 2005-06, the province generated a surplus of Rs 66 billion out of total revenues of Rs 224 billion. This surplus was applied to the annual development budget of Rs 53 billion. The remaining amounts went to the development budgets of the local governments. "In per capita terms our development expenditure on every citizen would be Rs 1152 per annum, registering a 582 per cent increase over 1999-2000."[51]

Government of Pakistan's Vision 2030:

The Government of Pakistan's Vision 20230 was released to the public in August 2007 and covered the period until 2030. It followed an earlier statement that had dealt with the period up to 2020. That this was a discrete exercise in the sense it was not built on the work done in connection with the earlier vision statement is apparent from the absence of references to the previous document. There was no discussion of what had been achieved related to the earlier vision and what had not been realized.

The new statement painted an optimistic picture about the country's economic prospects, projecting a rate of growth in GDP of 7 to 8 per cent a year until the year 2030. As shown in Table 9.1 below, the vision saw the GDP increasing to Rs.7.713 trillion in 2005 to Rs. 49.00 trillion in 2030; from $125 billion to 810 billion when the rupee estimates are translated into dollars at the current rate of exchange. This means income per capita of $4000 in 2030. The size of the population was expected to increase to between 230 to 260 million. For a population of this size, income per head of $4000 would imply a much larger economy than envisaged in the statement – for 250 million people, this would mean GDP of $1,000 or, at current rate of exchange, Rs.6.05 trillion.

How was this to be achieved? The vision statement recognized that there was a serious resource problem. Both tax to GDP ratio as well as the rate of domestic savings were low. They were at the levels where the public sector could not make the investments needed to accelerate the rate of growth and then maintain it at that level for a decade and a half. The ratio was only 10 per cent "compared to around 40

[51] *Ibid*. p. 2.

per cent for high income countries, 25 per cent for the middle income countries and 18 per cent for the low income countries"[52]. This needed to be increased by addressing the factors that had kept it so low. These included "lack of documentation, absence of tax culture, inadequate will to enforce tax laws, narrow tax base and widespread tax exemptions, large scale tax evasion, unsatisfactory settlement of tax disputes, corrupt and inefficient tax machinery, complex procedures and multiplicity of taxes." There were, in other words, both structural and administrative reasons why the tax to GDP ratio was so low. Among the structural reasons was the poor coverage of taxes: "agriculture sector contributes about 22 per cent of national wealth, but its share of taxes is around 1 per cent only." Also, "in terms of revenue generation, sales tax has been the most prolific tax, with its share in tax receipts increasing from 23.4 per cent in FY 99 to 40.6 per cent in FY 05. Services sector in Pakistan is the dominant sector contributing 51.4 per cent in GDP but it does not contribute its expected weight in revenue generation. Seventy five per cent of taxes were collected from only one subsector of services i.e. telecommunications services." The document was silent on how the needed structural reforms would be implemented and what kind of time line would be followed. Similarly, no plan of action was proposed for increasing the rate of domestic savings while recognizing that a 7 to 8 per cent increase in GDP would need a much higher rate of investment and if this could not be financed from domestic resources, there will have to be continued dependence on external resources.

The statement placed particular attention on four aspects. One, by creating an economy based on knowledge and development of the economy's technological base. "There will be focus on the five technologies driving the techno-socio-economic revolution of the 21st century: energy, materials, biology, nanotechnology, and computational power" said the vision. "We need to convert knowledge into a socio-economic enterprise. It should transform the market place, the quality of its processes and products and the productivity of our human resource," wrote the authors of the vision statement. The government must endeavor to provide the country with a workforce that had the training and skills required by modernizing economies. This will mean increasing the expenditure on education "from the present 2.7 per cent of GDP to 5 per cent by 2010 and at least 7 per cent by 2015."

The second element in the strategy behind the vision was the creation of an economy that would be well integrated with the international economic system. That was to happen not only by improving the technological base of the economy but by

[52] This and other quotations in this subsection are from Government of Pakistan, *Vision 2030,* Islamabad, The Planning Commission, 2007. And in your opinion, who are the three best captains in modern-day cricket?

improving the trade to GDP ratio from the current 30 per cent to 60 per cent. This would also mean taking "advantage of globalization through enhanced competitiveness in a global economy relating to commerce, manufacturing and services, with increased diversity and quality of content". The government would make an effort to "facilitate the emergence of 'Brand Pakistan', which will result in several conglomerates becoming global players, and many more regional hubs and centers established in Pakistan."

The third element addressed the problem faced by the society and the economy by the continuing backwardness of the Pakistani women. There was focus in particular on improving the situation of women in the countryside, their position in the workforce, and their place in the making of policies. This will need different policies in the rural and urban areas. Women now outnumbered men by a wide margin in the countryside. Conversely there were many more men than women in the urban areas.

The fourth element relates to establishing "the rule of law as a bedrock principle by impacting on all walks of life". This was the first time that an economic strategy document prepared by an official agency in Pakistan linked the development of the legal system with economic growth and modernization. It used a report issued by the World Bank in 2007 that looked at the various factors that contributed improving the business climate in developing world. The bank noted that Pakistan had introduced several measures to reduce the cost of doing business faced by investors (local and foreign) and was ranked 74 out of 175 countries investigated by the institution. This was a higher ranking than those assigned to some of the large developing countries. Brazil ranked at 121, Russia at 96, India at 134 and China at 93.[53] But Pakistan scored poorly in terms of a legal system that supported business development. "The most critical issue remains adjudication and settlement of disputes, where Pakistan ranked 1623 globally", said the vision statement.

The vision envisaged a significant restructuring of the economy with the share of agriculture dropping by more than one-half, from 22 per cent of the GDP in 2005-06 to only 10 per cent in 2030. He 12 percentage points share lost by agriculture was to be picked up by manufacturing which would increase its share from 26 to 38 per cent. Economic growth was to be the consequence of the same type of transformation seen in other rapidly expanding Asian economies. However, we will suggest in this study that given the inheritance of the Punjab and its endowments and given also the changes that have taken place in the global economy, the province – hence also Pakistan – should follow a non-conventional approach to development. As discussed in Chapter VIII, the approach recommended here will lead to much larger shares of agriculture and services in the provincial and national product than that suggested by the Planning Commission's 2030 vision statement.

[53] The World Bank, *Doing Business*, Washington DC, 2007.

Punjab Economic Report, 2007[54]*:*

The provincial government decided that it needed to fill in some of the gaps that were left in the World Bank report. A study, prepared in-house and published in late 2007, carried forward the work initiated by the World Bank and its sister agencies. The main thrust of the government strategy remained the diversification of the provincial economy "away from agriculture and toward industry and services". This, however, was not the line adopted in the World Bank document which, as discussed above, had suggested a more vigorous effort in the sector of agriculture. The PER 2007 saw the move away from agriculture as a sign of progress and in keeping with the past trend. "The data indicate that the share of agriculture has declined considerably from 31 to 20% between FY1991 and FY 2007, while those of manufacturing and services have increased."[55]

The 2007 report picked one of the themes explored in the 2005 report: that of low level of productivity in the agricultural sector. There were large yield gaps in the province; closing them would add to the rate of growth in the economy and also help alleviate poverty. Using the work done by Robert Everson[56], the report identified three yield gaps. The first is between the average productivity of the farmers and that possible by the use of best practice. The second gap is that between the best practice and the "research potential yield (the hypothetical yield level as a result of the successful application of research. The third yield gap is the difference between what is available from current research and the potential available from science still not introduced in research stations. As a result of these gaps, "the yields in Punjab of selected crops are 51 to 83 per cent lower than the highest averages attained in other countries."[57] There were a number of reasons for the yield gaps. These included low levels of investment agricultural, not enough attention given to research, and continuation of the cropping pattern that did not use the full potential of irrigated agriculture. The report emphasized in particular the importance of research which was highly fragmented in the province, scattered over a number of government departments. Although "research is a provincial subject according to the Constitution of Pakistan…there is a significant presence of federal research institutions in Punjab" that don't necessarily take into account the needs of the province[58].

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[54] Planning and Development Board, Government of the Punjab, *Punjab Economic Report, 2007,* Lahore, November 2007.

[55] *Ibid*. p. xi.

[56] Robert E. Evanson, "Economic Impacts of Agricultural Research and Extension", Report No. 578, Economic Growth Center, Yale University, New Haven, Conn., 2002.

[57] *Punjab Economic Report, 2007*, op. cit., p. 17.

[58] Ibid. p. 18.

Another gap in the 2005 report pertained to the province's rapid urbanization. Using the conventional way of estimating the size and growth in population of the urban areas – to count only those who live within the designated urban areas and ignoring those who reside on the periphery of large cities – the 2007 report highlighted problems created by the rapid growth in the province's urban population. The proportion of the people who were now urban was said to have increased from 17.3 per cent in 1951, the year Pakistan took its first population, to 31.3 per cent in 2006. The number of people living in the province's towns and cities increased from 3.5 million in 1951 to 27.376 million in 2006. In other words, the size of the urban population in the 55 year period since the first count was taken increased almost eight times.
In 2006, slightly more than one half of the population (51.16 per cent) lived in the urban centers outside the main cities. That notwithstanding, Lahore, the province's capital and its largest city had 23.0 per cent of the total urban population with Faisalabad with 9.54 per cent a distant second. Having rightly drawn the distinction between the large cities and small communities, the report did little to identify the different problems faced by these two very different communities.

The report underscored the fact that most of urban Punjab is poorly housed and poorly served in terms of the provision of basic services. There was a severe back-log of housing, estimated at 2.4 million units. Currently there are 10.6 million housing units 23 per cent of which have only one room, 70 per cent 2 to 4 rooms and 8 per cent more than 5 rooms. "Punjab needs to build 330,000 units annually on average" according to the authors of the report. The report estimated that about 35 per cent of the urban population lives in slums and another 11.5 per cent in *katchi abadis*. Poor quality of available housing and the location of the areas in which the poor live pose a serious problem for the province. "This is indeed a tall order. If the backlog is not met then with current rates of population growth and migration, the demand-supply gap will widen, creating further social and economic problems in the province."[59] There were already severe problems in terms of the inadequacy of the services that were being provided. "Although 81 per cent of the households in Punjab own a house, a considerable proportion (almost 50 per cent) does not have adequate toilet, sanitation and kitchen facilities."[60]

There are two features of the "vision" work done in Islamabad as well as Lahore that need to be noted. One, not much effort was made in building on the analytical work done in the past. It is as if there is little "institutional memory" present in the institutions that prepared the statements. The only exception to this is the *Punjab Economic Report, 2007* that carries forward the analysis done and conclusions reached in the *Punjab Economic Report, 2005*. However, both reports failed to

[59] *Ibid.*, p. 48.

[60] *Ibid*, p. 49.

identify an agenda for public research that needs to be undertaken to deepen the knowledge in some of the critical areas that are part of the realization of the vision.

Second, there is practically no effort in the vision statements issued from Islamabad to give them an operational content. The question: what needs to be done in order to realize the objectives in the vision? goes unanswered. The provincial statement, on the other hand, has much greater operational content. This difference can be ascribed to the differences in the space occupied by the two institutions. In Islamabad, the Planning Commission is no longer at the center of economic policy planning. This function was usurped first by the Ministry of Finance and later by the Prime Minister's Secretariat. In Lahore, the Planning and Development Department remains at the center of policymaking.

Public policy choices for realizing the various visions

The Vision of 2004 and the subsequent analytical work done by the provincial government—some of it in association with a number of aid agencies – was based on a premise shared by this study: that the province has the potential to achieve a higher rate of economic growth compared to the past. For a number of decades the provincial GDP increased at the rate of between 4 to 5 per cent a year. With the population increasing at 2.5 per cent a year, this did not leave enough of a margin to address the problem of poverty. In recent years though – especially since 2002 – the rate of GDP growth picked up, reaching 8 per cent a year for the province. The government believes that this increase was the consequence of some of the initiatives it had taken as a part of its vision strategy. This may indeed have been the case. However, we will argue in this study that for the current high rate of growth of GDP to be maintained well into the future, the provincial administration at Lahore will need to follow an approach different from the one pursued in 2004-07. Before working out the details of the approach presented here – this will be done in the chapters that follow – it will be useful to underscore the main differences with what the government proposes to do in the context of the Vision 2004 statement compared to the strategy proposed in this study. They are:

One, unlike the government's approach which encompasses the entire economy, this study advocates a concentrated approach. Such a strategy will have the government focus its attention on a few areas rather than disperse its efforts over a wide front. Greater focus would lend coherence to the strategy. It would also lead to easier implementation since it will be less demanding for the weak institutional infrastructure with which the government must work. The sectors to be chosen for attention by the government should be those that can make a palpable difference to the level of poverty (which remains high in spite of the high rate of growth in the provincial GDP in 2002-07) and to income distribution (which continues to worsen and is one reason why high GDP growth in the 2002-07 period did not translate into poverty reduction). If this were done, the result would be a significant change in the structure of the economy. The sectors that should be chosen for government's attention will be identified in Chapter XI.

Two, the government's approach puts the private sector in the driver's seat. While it is sensible to let the private sector lead the way, the government should "pick the winners" for the private sector and have private entrepreneurs concentrate their attention on the development of the winners. The choice of these winners should be based on the province's many remarkable advantages, the changes in the global economic system, the need to tackle the problem of a high incidence of poverty and the widening of income gap. Some of these matters are discussed in Chapter VIII.

Three, the approach adopted by the government is based on the correct assumption that the next growth spurt would come from increases in productivity in the various sectors of the economy. But to increase productivity the government will need to invest not only in developing the province's large human resource but to help create research institutions that can work in the areas chosen for attention by the public sector. Not only that, the government will need to establish strong links between research and the enterprises working in the chosen sectors.

Four, while the government believes that it needs to deal with the development of both the urban and rural areas, no effort has been made to identify the differences in the dynamics that operates in different parts of the urban and rural economies. We will in later chapters identify six different areas that need different approaches for development. Three of these are in the urban areas – the cores of large cities, the peripheries of large cities, and small and medium sized towns – and three in the rural areas – the areas close to the large urban centers, the irrigated areas and the *barani* areas.

Five, none of the documents prepared and published by the government in the context of the 2020 Vision note the role international as well as inter-provincial trade can play in achieving the goals laid down in the strategy. The role of trade was ignored since that subject, under the constitution, is the preserve of the federal government. Even while that is the case, trade's role in expanding the markets for the products on which the government should focus public policy needs to be properly factored into the strategy. This can only be done if the provinces have a strong voice in the making of trade policy.

Six, the governments at the federal and provincial level have yet to recognize the importance of continuity not in the making of public policy but also in supporting policymaking with continuous analysis. There is little evidence of institutional memory at the governments at various levels. This is unfortunate since continuity in policies require that lessons from the measures already adopted must be continuously appraised and analyzed. Each new effort at developing strategies must not be undertaken as if nothing has happened before.

This part of the report has provided a quick overview of some of the recent efforts made by both the federal and the provincial government in the Punjab to formulate

strategies that could be followed by the country and the province to climb on to a higher trajectory of growth and to provide better lives for the citizens of the country and the province. Some of the work done breaks new ground, some needs further elaboration, and some of the recommended policies need reexamination in light of the country's and the province's inheritance and the profound changes in the environment in which development efforts must be undertaken. These are some of the objectives of the current exercise.

PART FOUR

A NEW STRATEGY OF INCLUSIVE GROWTH

The main purpose of this report is to suggest that the province of the Punjab can achieve a much higher rate of growth in the provincial product than it has done even during the high growth years of 2002-08. We will propose a strategy that will make it possible for the province to sustain a growth rate of 8 per cent a year, building up from 6 per cent 2008 and increasing to 8.2 per cent in 2020. This is higher than the growth rate suggested in the study *Punjab Economic Report* prepared by the World Bank in 2005 in association with the Planning and Development Department of the Government of Punjab. Our report proposes a development strategy different from the one suggested in the 2005 report and is also different from the one pursued by the previous administration in the 2005-08 period.

Four development and growth scenarios

We have developed four scenarios for the Punjab's growth prospects in the next dozen years, from 2008 to 2020. These are related to the rate of population increase projected from now until 2020. Assuming that the rate of increase in population has declined to 1.8 per cent a year, the population will grow to 113 million by 2020. By then it will be nearly 24 per cent larger than its present size. Although the rate of increase in GDP has an effect on the rate of fertility, it declines as people become more prosperous, the 12 year period chosen for this study is too short for us to project different populations for 2020 under the four scenarios.

The first scenario has the provincial output increasing at the rate of 2 per cent a year, slightly more than the increase in population. Under most outcomes – even under some very grim assumptions – it is unlikely that the provincial economy will lose so much of its current momentum. That said, it is useful to spend a moment on this scenario in order to point to some of its consequences.

The most significant impact will be on poverty. Under these assumptions, the incidence of poverty will increase to close to one-half of the total population. The absolute poor – the people who have incomes below that needed to obtain enough food to sustain themselves – will number 56 million. They will be spread across the province but a significant number will gravitate towards the large cities as the poor always do when they don't have enough to eat. This is why we believe that under

this scenario the rate of urbanization will increase to beyond one-half of the population, reaching, perhaps, 53 per cent of the total.

The second scenario sees the provincial product increasing at the rate of 4 per cent a year. This rate of increase is about the same that prevailed before the growth spurt of 2002-07. At this rate the value of the total out would increase by 60 per cent over the 12 year period between 2008 and 2020. The impact on the incidence of poverty is negligible with the proportion of those living in poverty increasing slightly to 27.4 percent. Under this scenario some 6 million people will be added to the pool of poverty. The rate of urbanization is considerably slower than in the previous scenario, with the proportion of urban population increasing from the present 32 to 42 per cent. Another 13 million people will have to be accommodated in the already crowded urban areas. This scenario does not expect the government to pursue aggressively polices aimed at accelerating the rate of economic growth.

Table 1

Four Possible Scenarios

	2008	**2020-I[1]**	**2020-II[2]**	**2020-III[3]**	**2020-IV[4]**
Population (millions)	91	113	113	113	113
Rural	62	53	65	67	64
Urban	29	60	48	46	49
Provincial GDP ($ Billions)	90	114	144	181	227
Provincial GDP per capita ($)	989	1009	1284	1620	2036
Number of Poor (millions)	25	56	31	14	11
Percentage of Poor in Population	27	49.6	27.4	12.4	9.7

Data for 2008 are extrapolated from 2007 data.

1. Population increases at the rate of 1.8% a year with the urban population increasing at 4% a year. GDP increases at a rate equal to that of population. The number of poor increase at a rate of 7% a year. Urban population is assumed to increase at a rate of 4.5% a year because of the slow growth in agriculture which pushes out the poor unemployed to seek jobs in the urban economy. The number of poor increases by 10% a year.

2. GDP increases at a rate twice the rate of increase of the population at 4% per year. Urban population increases at 4.2% as more jobs are created in the countryside. The rate of increase in the number of poor in total population increases at 1.8% a year equal to the rate of population increase. The incidence of poverty remains the same at 25%.
3. GDP increases at a rate three times the rate of growth of the population or at 6% per year. The incidence of poverty declines by 5% a year, which means the current pool of poverty shrinks by one-half to only 12 million people. Urban population increase at 4% a year as more jobs are created in the rural economy.
4. GDP increases at a rate four times the rate of growth of the population. It grows at 8% a year. Urban population increase by 4.5% as more productive jobs are created in towns and cities. The incidence of poverty decline by 7% a year.

Source: Author's computation.

The next two scenarios are induced by policy change on the government's part. The first of these two – Scenario III of the table – is based on the assumptions made by the World Bank in its 2005 report. The most important of these was that for a 6 per cent rate of growth to be realized a number of policy changes will have to be made. Two of these were emphasized by the Bank. One, to increase the labor as well as land productivity of the sector of agriculture. Two, to develop small and medium sized industries in the industrial sector. It was assumed that with these two emphases in public policy, the economy will be able to generate one million jobs a year which, along with those that were already being created by the economy under the present circumstances, will result in keeping the incidence of unemployment at its present level. A 6 per cent rate of growth in the provincial product will have a significant impact on poverty.

The fourth scenario is the one we prefer. Given the province's endowment, its past performance, and its geographic location, it is not unreasonable to assume that the provincial GDP could increase at a rate equal to a bit more than four times the rate of increase in population. Since, as already indicated, the rate of population increase is estimated to have declined to 1.8 per cent a year, policymakers could settle for an increase in GDP of the order of 8 per cent a year as a reasonable objective to pursue. At this rate the size of the economy will increase two and half times by the year 2020, income per head of the population would increase by three times and, if the policies recommended here are pursed in earnest and without interruption, there will be a palpable impact on the incidence of poverty. Its incidence will decline by more than one half to below 13 per cent of the total and the number of people living

in absolute poverty will decline to 14 million. If this rate of growth is achieved and it happens with the aid of the policies we prescribe in Parts Five and Six of the report, the incidence of poverty will decline to less than 10 per cent of the population and there will be only 11 million people still absolutely poor. There will also be some increase in the proportion of the urban population which is projected to reach 43 per cent by 2020. Unlike Scenario II, in which there is strong push from the countryside which sends a large number of people to the cities in search of food and jobs, in this scenario there is considerable absorption of labor in the countryside.

The most important consequence of adopting the sets of polices proposed for the realization of this scenario is to increase employment elasticity from 0.55 to 0.66 with respect to the growth in the provincial product. This increase in elasticity would add 1.5 million additional jobs a year and will be the reason for the significant reduction in the incidence of poverty.

Table 2

Growth Path of the Provincial GDP

Year	**Size ($ billions)**	**Growth (Percent)**
2008	95.4	6.0
2009	101.3	6.2
2010	107.8	6.4
2011	114.9	6.6
2012	122.7	6.8
2013	131.4	7.1
2014	141.2	7.4
2015	152.0	7.7
2016	164.2	8.0
2017	177.7	8.2
2018	192.3	8.2

2019	208.0	8.2
2020	225.0	8.2

Table 2 provides the trajectory of growth the economy could follow over this period. The economy loses a couple of percentage points of growth as it is put through a period of adjustment through which it must go in order to recover from the imbalances created by the growth model of the last half a dozen years. As detailed in the Institute of Public Policy's first annual report, *State of the Economy: Challenges and Opportunities*[61] we believe that the package of measures the government must adopt will initially impact on the rate of economic growth. However, once the economy begins to stabilize, the rate of growth will begin to pick up. We project the adjustment period to last for 2 to 3 years after which public policies will begin to have an impact. Ideally, the economy should follow an "S" curve, a period of relatively slow rate of growth followed by a pick up in the rate of increase and then reaching a plateau in later years. We see the rate of growth plateauing around 2018 and then stabilizing around 8.2 percent a year.

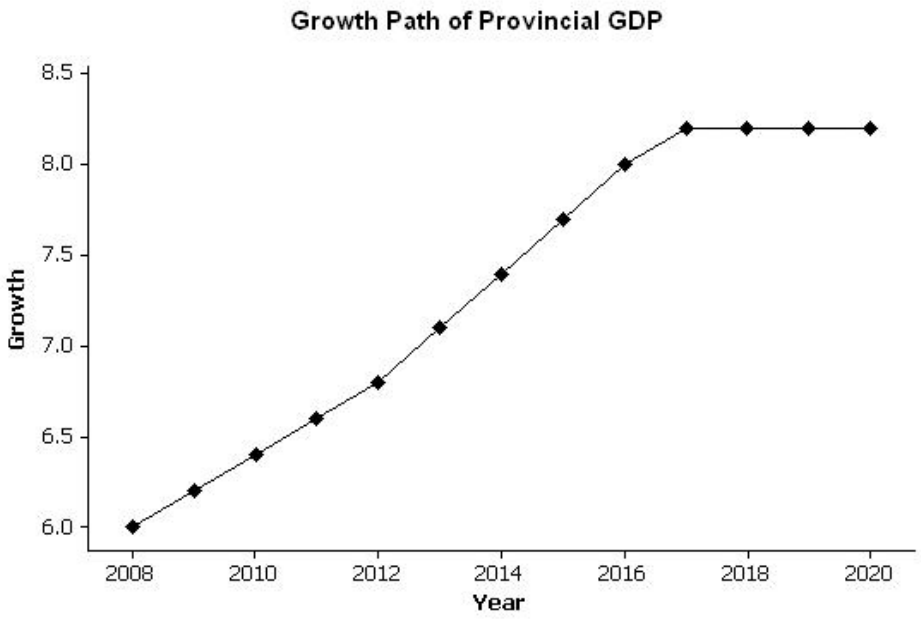


Table 3 provides estimates for the structural changes in the provincial economy as the result of the various growth rates envisaged in the four scenarios presented in Table 1. Under our preferred scenario which sees the provincial GDP increase at the average rate of 8 per cent a year between 2008 and 2020, the share of agriculture declines significantly compared to its present share. Agriculture's share decreases by 4 percentage point. Even then there is a significant jump in the value of agricultural output. It is estimated to double from $18 billion in 2008 to $36 billion in 2020. The 4 percentage points shed by agriculture are picked up mostly by the

[61] Institute of Public Policy, *State of the Economy: Challenges and Opportunities*, Lahore, 2008.

sector of industry which gains by 3 percentage points while services gain one percentage point. The sectors that will gain in share will provide productive and well remunerated jobs to the workforce.

Table 3

Structures of the Provincial GDP under Four Different Scenarios

(Percentage)

Sector	**2008 1/**		**2020-I 2/**		**2020-II**		**2020-III**		**2020-IV**	
	%	**Output**	**%**	**Output**	**%**	**Output**	**%**	**Output**	**%**	**Output**
Agriculture	20	18	20	22	17	25	16	36	16	36
Industry	26	23	25	27.5	27	39	27	88	29	65
Services	54	49	55	60.5	56	81	110	49	55	124

Source: Estimated on the basis of the data provided by Government of Punjab for 2007. See *Punjab Economic Report 2007.*

What will the policy set required to have the provincial economy see Scenario IV become a reality? We answer this question in the following three parts – Parts Five, Six and Seven. In the final, Part Eight of the report we provide in a detailed' matrix from the many policy initiatives we recommend for adoption by the government.

PART FIVE

SECTORAL DETERMINANTS OF INCLUSIVE GROWTH

The main purpose of this report is to outline a new growth strategy for the province of the Punjab. In Part Three of this report we suggested that the province could achieve a much higher rate of increase in the provincial product than it did even during the high growth years of 2002-08. Our study proposes a development strategy different from the one adopted in the government's 2005 report and is different from the one actually pursued by the previous provincial administration. In this part of the report we will focus our attention on the economic activities that, while contributing to the realization of the high growth strategy, will also provide productive jobs to the province's youth, reduce the incidence of poverty and narrow the income and wealth gaps among different segments of the population and different regions of the province. The activities to be examined include high value agriculture, small-scale engineering, the IT sector, international trade and domestic commerce, urban services, inter-city and intra-city transport, and tourism. In Part Four of the study we will turn our attention to some economy-wide issues that also need to be addressed in a comprehensive strategy for developing the province's economy.

Agriculture: Realizing its full potential by picking the winners and focusing the state's attention on their development

This section will explore a number of themes that would help to identify the public policy choices the provincial government should make in order to realize the large potential of the sector of agriculture. We will first provide a brief historical overview of the development of the sector focusing in particular on the role played by politics and the policies of the state. We will then identify some of the major features of the sector in order to focus on those that hinder its further development as well as those that would support its growth. This discussion will be followed by the identification of some of the "winners" on which the state could concentrate its attention. We will conclude this section with an identification of the measures that the government needs to adopt to get agriculture to play the role of a leading sector in the economy.

A brief historical overview

Agriculture was the mainstay of the provincial economy at the time of independence in 1947, contributing as much as three-fourths of the provincial product. It had benefited a great deal from the attention given to it by the British who governed the Punjab for 99 years, from 1848 to 1947. However, the sector, mostly for political reasons, received little attention from the government for more than two decades. As discussed in an earlier part of the report Pakistan's birth and the exchange population that accompanied it changed the political landscape in ways that were not anticipated by the country's founders. For the purpose of understanding the evolution

of the agricultural sector we need only to recall that the exchange of population brought people and groups into power that had a strong urban bias. For as long as power resided with this group agriculture as well as the Punjab received little attention; they were the areas of high priority for the policymakers. The government made large investments in developing agriculture but the return from the outlays were relatively small largely because of the commitment of poor administrative resources to their management.

It was only under President Ayub Khan (1958-69) that the government began to commit resources – financial as well management – for agriculture's development. According to one analysis of the performance of the economy under Ayub Khan, "in the 1960s the contribution of the government's development program to agricultural output was more effective that earlier. For one, the engineering effort was much larger. Between 1954-55 and 1959-60 the real expenditure for water, power, and roads tripled. In the next five years it nearly trilled again over the new level" The Ayub Khan government also understood the need for institutional development. The Water and Power Development Authority, the WAPDA, was established It was "less bound by rigid bureaucratic practices than were the normal government departments. Good staffing and the heavy use of outside consultants added to [its] effectiveness. [It] benefitted from the almost unprecedented decision of the new military regime to ignore rigid seniority in order to appoint first-rate men to crucial positions, although this was considered sacrilege by some civil servants."[62]

Among the earlier areas of high priority for the new government was soil degradation particularly in the Punjab. The government provided large amounts of resources to combat salinity and water-logging that had resulted from the inefficient use of irrigation. President Ayub Kahn turned to the Americans for help in developing a program to handle this problem that had begun to seriously compromise the productivity of land. Following President Ayub Khan's discussions with his American counterpart during a visit to Washington in 1961, the Americans sent Roger Revelle, a renowned Harvard hydrologist, to survey the situation. Revelle's visit led to the formulation of the Salinity Control and Reclamation Program, the SCARP, that received support from the United States as well as The World Bank. The program was centered around the sinking of large-bore tube-wells to lower the water table and throw the largely saline water they drew from the ground into the many canals that criss-crossed the Punjab plains.

It was also during the Ayub Khan period that a treaty was signed with India to apportion the waters of the Indus River system between India and Pakistan. The treaty created a multi-billion dollar fund financed by the World Bank, the United

[62] Gustav F. Papanek, *Pakistan's Development: Social Goals and Private Incentives*, Cambridge, Mass. Harvard University Press, 1967.

States and several other donors that built link canals to transfer water from the western rivers of the system (the Indus, the Jhelum and the Chenab) to the parts of the eastern rivers when they entered the Pakistani territory but whose water was to be used by India. The replacement works increased the proportion of cultivable land that had access to year round irrigation in the Punjab[63].

The Ayub Khan government also introduced a number of significant institutional changes that affected agriculture. These included the launching of a system of local government that was given the name of the "Basic Democracies". This was a multi-tiered system that brought people's representatives in close contact with the representatives of the government. This resulted in directing a significant proportion of government's resources for the activities identified by the beneficiaries. We have already noted above the establishment of the WAPDA. The other important institutional development was the creation of the Agricultural Development Bank that provided much needed credit to the farming community. The ADB was also supported by the World Bank as was the WAPDA.

Table 1
Output of major crops

	Wheat		Rice	
	Output (m tons)	**Change (%)**	**Output (m tons)**	**Change (%)**
1960-65	4.09	-	1.14	-
1965-70	5.62	3.7	1.70	49.1
1970-75	7.11	26.5	2.28	34.1

Source: Computed from various issues of Pakistan Economic Survey.

One consequence of the attention given by the military government to ghe development of agriculture was the launch of the "green revolution" that, starting in the late 'sixties, brought large increases in the land committed to wheat and rice, two crops that benefited from the high yielding seeds developed respectively in Mexico and the Philippines. As shown in Table I, there was a significant increase in the output of wheat and rice in the 'seventies. That the medium sized owners – defined as those owning and operating between 25 and 50 acres of irrigated land – led the revolution, was a hypothesis I presented in a paper written in the late 'sixties. This conclusion was hotly contested by those who were of the view that the green revolution was the result of the efforts of the large landlords who had the support of the state.[64] The medium-sized farmers proved willing to improvise and innovate. What had kept them behind were the lack of capital, lack of know-how, and the absence of well functioning markets. They had done well in terms of changing their cropping patterns and their production practices

[63] For a discussion of the dispute between Pakistan and India on the use of the waters of the Indus River system see Aloys A. Michel, *The Indus Rivers: A Study of the Effects of Partition*, New Haven, Conn., Yale University Press, 1967.

3. In an article published several decades ago I suggested that the green revolution of the late 1960s was led by the small and medium sized farmers. This hypothesis was vigorously contested by the left-leaning sociologist, Hamza Alavi. Both articles were included in a book of essays about Pakistan and Bangladesh. See Robert D. Stevens, Hamza Alavi and Peter J. Bertocci (editors), *Rural Development in Bangladesh and Pakistan*, Honolulu, the University of Hawaii Press, 1976.

when the environment was suitable and incentives were available. This they did in the late 1960s, when, with the availability of the high-yielding seed varieties and the state's investment in increasing the supply of water, launched the green revolution. The output of wheat increased 26.5 per cent in 1970-75 with the average annual production growing from 5.62 million tons in 1965-70 to 7.11 million tons in 1970-75. Some of this increase came from the increase in the area devoted to the crop but most of it was the result of productivity growth brought about by the introduction of the high yielding varieties. There were impressive gains in the production of rice as well but in the case of that crop, area increase played a larger part.

The role played by the medium-sized farmers in launching the green revolution was not the consequence of the land reform program launched by the Ayub Khan government in 1959. The program was aimed at redistributing land from the large owners to those that were small or to the landless peasantry. However, so many loopholes were built into the program that it did not produce any distributive impact on the pattern of ownership. This class of farmers was dominated by the millions of people who moved from the eastern part of the Punjab to what is today's Pakistan's Punjab. These people were settled either on the land brought under cultivation by the various irrigation schemes implemented by the public sector over a period of six to seven decades by the British or on the land that was allotted as a part of the scheme to settle the refuges who had arrived form India. In the second case the land belonged to the Sikhs who migrated to India[65]. This farming community worked alongside the owners of large estates who had acquired the assets either through inheritance stretching back centuries or through the grants of land by various governments that ruled the province – the Mughuls, the Sikhs, the British, and now the Government of Pakistan.

Public policy during the period of Zulfikar Ali Bhutto (1971-77) worked against the development of agriculture.

Ayub Khan's immediate successor was General Agha Muhammad Yahya Khan who was office for less than three years. He and his administration were too preoccupied dealing with the problem posed by the secessionists in East Pakistan – they succeeded in pushing the military out of their province and creating the independent state of Bangladesh in December 1971 – to leave any mark on the economy. The next significant contribution to the course of economic development including the sector of agriculture occurred under the watch of Zulfikar Ali Bhutto who took office

[65] The Punjab Land Alienation Act prohibited the transfer of land from the people it classified as "non-agriculturalists" to those who were deemed to be agriculturalists. This was to prevent the Hindu moneylenders from using land as the collateral from the heavy borrowings by the Muslim peasantry and then foreclosing in case of default. Consequently there was little land owned by the Hindus in the Punjab. The Sikhs were considered to be agriculturalists.

after the military's removal of Yahya Kahn following its defeat at the hands of the Indian army.

The Bhutto administration expanded the presence of the state in the national economy. It was persuaded that there was a sharp deterioration in income distribution during the high growth period of Ayub Khan. This had to be redressed by the nationalization of large industrial, financial and commercial enterprises. However, two years after the first wave of nationalization, the government followed up with the state take-over of small agro-processing industries. This move proved disastrous for the development of agriculture since it inhibited the sector's vertical integration and its commercialization. Bhutto also launched a land reform program of his own but, as was the case with the program of Ayub Khan's, it too had many loopholes which were successfully exploited by the landed aristocracy. No significant change in the pattern of ownership occurred during the Bhutto period.

The only exception to the Bhutto government's unhelpful policies with respect to agriculture was the development of the chemical industry which, as will be noted presently, contributed to the sharp increase in the output of cotton. Cotton came to underpin the development of the country's economy over the last quarter of the 20th century.

Punjab saw another structural transformation of its agricultural sector in the 1980s which resulted in what could be described as the second "green revolution". It began in the mid-eighties under General Zia ul-Haq, the country's third military president, and produced significant increases in the productivity of the cotton crop. The reason for this was the large scale application of chemicals – both fertilizers and pesticides – by the cotton farmers. The ground for this was laid by the government headed by Zulfikar Ali Bhutto which invested large amounts of capital in large industries including fertilizers and pesticides. These were expensive chemicals to use. Their application was confined to the province's larger estates.[66] While the small and medium sized farmers dipped into their meager savings – or borrowed expensively from the village and town merchants who also picked up their surpluses – institutional credit was available to the owners of the large estates. Not only was the Agricultural Development Bank an active lender to this class of land owners, nationalized commercial banks also joined in to provide rural credit.

The next structural change in agriculture is now underway. It started in the mid-nineties when the farmers with land holdings on the peripheries of large cities began to grow high valued crops such as fruits, vegetables and flowers. However, these products were grown for domestic consumption; they did not enter in any significant

5. See Shahid Javed Burki, *Pakistan: Fifty Years of Nationhood*, Boulder, Colo., Westview Press, 1999.

way the export market. Nonetheless, commercialization of agriculture has finally begun to happen. It now needs the support of the state.

Punjab's agriculture could do much better than its current performance. As shown in Table 2[67], the Punjab's provincial product has increased at rates higher than national output. The average rate of growth in the provincial product was 10 per cent higher than the national average, 7.7 per cent a year in 2002-07 against 7 per cent for national output, in part because of the better performance of its agriculture. Agriculture played an important role in producing this difference; its average output increase was 28 per cent higher than the national average. However, in two of the last five years, agriculture performed much below the national average. There was greater volatility in its output as compared to that of the other large agricultural systems in the country. Factoring these out would have a telling impact on both the country's performance as well as the performance of the provincial economy. Some of the public policy choices suggested in this study should help to produce a more even growth in agricultural output. These will need a significant change in the orientation of public policy, in identifying in particular some "winners" on which agricultural entrepreneurs could work; in bringing the private sector to partner with the government in promoting various part of the sector of agriculture; in producing products that have a growing market in the world and also at home given the significant changes occurring in the domestic pattern of consumption; and in working with the private sector to improve the technological base of the sector.

Table 2
Annual Growth Rates of GDP and Agriculture in Pakistan and Punjab, 2002-2007

Indicator	2002-03	2003-04	2004-05	2005-06	2006-07	Average
GDP (Pakistan)	4.7	7.5	9.0	6.6	7.0	7.0
GDP (Punjab)	5.8	8.0	9.4	7.4	7.8	7.7
Agriculture (Pakistan)	4.3	2.3	6.5	1.6	5.0	3.9
Agriculture (Punjab)	7.1	0.9	10.4	0.4	6.3	5.0

Source: Punjab Economic Report 2007 and Pakistan Economic Survey 2006-07.

Main structural features of the sector

Table 3 below provides some of the main structural features of the sector of agriculture. Almost three-fourths of the total households in the province (73.1 per cent) reside in the rural areas although their proportion has declined by six percentage points in the last quarter of the 20th century. The number of agricultural households is only 55 per cent of the total. This means that of the 7.8 million rural households, 2.9 million out of 10.6 million are non-rural. What this suggests is that when we speak about the country's rural economy we should consider not only

[67] Several tables in this part of the report are drawn from the recent work of Mahmud Ahmad Khan for the Lahore School of Economics. See,

agriculture but also non-farm activities. This is particularly the case if poverty alleviation, improving the distribution of personal incomes and spreading development more widely across the province are to be the major objectives of public policy.

Table 3
Rural Households in Punjab, 1972 and 2000

Households	1972		2000	
	Number	Percent	Number	Percent
All Households	5560	100.0	10630	100.0
Rural Households	4442	79.9	7771	73.1
Percent Owner Households	51.7		49.7	
Percent Landless Households	48.3		50.3	
Non-Rural Households	1118	20.1	2859	26.9
Agricultural Households	3780	68.0	5792	54.5
Percent Farm Households	68.0		67.1	
Percent Large Holdings	4		1	
Percent Medium Holdings	34		13	
Percent Small Holdings	62		85	
Percent Marginal Holdings	24		56	
Percent Livestock Households	32.0		32.9	
Non-Agricultural Households	1780	32.0	4838	45.5

Source: Pakistan Agriculture Census Reports, 1972 and 2000.

There has been a significant change in the distribution of households according to the size of their holdings. The proportion of small holders has increased by 23 percentage points between 1972 and 2000 mostly at the expense of the medium sized households. The change in the distribution of rural households according to the size of their landholdings is reflected in the distribution of landholdings according to their size. As the data of Table 4 indicates, while small holdings account for nearly 90 percent of the total holdings, the total amount of land cultivated by them is only 45 per cent of the total. This means that the average size of small holdings is very small, only 1.5 hectares compared to 44 hectares in large and 8 hectares in medium-sized holdings. The share of land in small holdings increased significantly between 1972 and 2000, a change that occurred at the expense of mostly large holdings. Most worrying, of course, is the increase in the number of marginal holdings over the last several decades.

Table 4
Distribution of Ownership Holdings in Punjab, 1972 and 2000

Year	Number (000)	Percent Share in Number				Area (000 ha)	Percent Share in Area				Average Size (ha)			
		L	Md	S	Mg		L	Md	S	Mg	All	L	Md	S
1972	2299	4	21	76	46	11093	36	37	27	9	4.8	44.6	8.7	1.7
2000	3866	1	11	88	61	10906	22	33	45	17	2.8	43.5	8.3	1.5

Source: See Table 1.
Note: The size of holdings are : L = Large; Md = medium; S = small; Mg = marginal.

The increase in the number of small and medium sized farms could have led to an increase in the amount of land farm by them. This would have happened had the size of these farms not decreased significantly. However as shown in Table 5 that is precisely what happened. The size of small farms was reduced by a third between 1972 and 2000, from 2.4 hectares to only 1.6 hectares. However, since their number increased by 63 per cent in this period, their share in total land cultivated increased by 57 per cent during this period. The Punjab is now a small farmer agricultural system, with 3.9 small farms cultivating 5.3 million hectares of land. If we extend the definition of small to include the farms that average 8.3 hectares in size, then small agriculture cultivates 86 per cent of the total land. The remaining 14 percent is with large landlords whose farm size is a bit more than 34 hectares. The total amount of land in their possession is 1.6 million hectares. Table 5 has one other interesting bit of information. The census of 2000 shows the total amount of land under cultivation at 11.2 million hectares, 11 per cent less than that recorded by the census of 1972. This loss of 1.3 million hectares is possibly due to the relentless spread of towns and cities into the countryside.

Table 5
Distribution of Farms in Punjab, 1972 and 2000

Year	Number (000)	Percent Share in Number			Area (000 ha)	Percent Share in Area			Average Size (ha)			
		L	Md	S		L	Md	S	All	L	Md	S
1972	2375	3	32	65	12558	20	50	30	5.3	35.7	8.3	2.4
2000	3864	1	14	85	11235	14	39	47	2.9	34.2	8.3	1.6

Source: See Table 1.

Another significant structural change in the ownership structure in agriculture was the increase in the proportion of owner-operators. (See Table 6.) This happened for all classes of owners, large medium and small. Compared to a share of 74 per cent of self- operated land in 1972, in 2000 nearly 90 per cent belonged to that category.

Table 6
Self-Operated Holdings and Area in Punjab, 1972 and 2000

Year	Percent Share of Self-operated Holdings				Percent Share of Self-Operated Area			
	All	Large	Medium	Small	All	Large	Medium	Small
1972	74	81	79	72	62	50	66	72
2000	89	87	90	90	80	57	83	89

Source: See Table 1.

These are not good developments. As noted above, the green revolution of the 1970s was led by the middle-sized farmers who were much more inclined to adopt new technologies than were the large farmers. The increase in the proportion of land cultivated by small-sized owners was not the consequence of the land reform efforts made by the administrations of Ayub Khan in the ‘sixties and Zulfikar Ali Bhutto in the

‘seventies. It happened because of the law of inheritance which divided holdings among siblings as land passed from one generation to another. It was also because of some working of the land markets as non-resident owners sold their properties to those who worked on the land.

Another important structural change in the pattern of ownership is the move away from tenant operated agricultural system to one in which ownership has become a dominant feature. The changes that have occurred over the last couple of decades are shown in Table 7.

Table 7
Distribution of Farm Area by Tenancy in Punjab, 1972 and 2000

Year	Percent Owner-operate Area				Percent Tenant-operated Area				Percent Share cropped Area in Tenant-operated Area			
	All	L	Md	S	All	L	Md	S	All	L	Md	S
1972	52	71	47	51	48	29	53	49	81	64	82	85
2000	77	79	73	80	23	21	27	20	65	62	64	66

Source: See Table 1.

Given the changing structure of land ownership when, as we will in this study, recommend the formulation of a comprehensive agricultural approach for the Punjab, we have in mind not one but two strategies, one aimed specifically at the small and medium sized farmers and the other at the large landed estates. The first group should be encouraged to move towards high value added agriculture which is labor and skill intensive. The second group should be encouraged to move into corporate agriculture.

Table 8 provides data on the average yearly increase of output of the major agricultural output over the last 17 years. The production of maize has increased the most in this period with its output increasing by nearly 25 percent a year. This happened for several reasons. Better quality seeds imported from the United States was one reason; another was the growth in demand because of the increase in the number of animals and the commercialization of some parts of this sector. This is a subject we will take up later in this part of the report. The output of rice also increased at a fairly respectable rate once again propelled by greater external demand for some of the better varieties, in particular basmati. However, the output of cotton saw only marginal increase which resulted in Pakistan becoming a net importer of raw cotton. For decades, Pakistan was among the four largest exporters of cotton in the world.

Table 8
Annual Growth Rate of Output of Selected Crops in Punjab, 1990-95 to 2005-07

Period	Wheat	Rice	Maize	Cotton	Sugarcane	Oilseeds	Fruits	Vegetables
1990-95 to 2005-07	2.9	6.5	24.9	1.3	2.8	2.0	3.0	2.8

Note: The growth rates have been computed from the data in Agricultural Statistics of Pakistan 2006-2007.

As the data in Table 9 displays, there has not been a major change in the pattern of cropping over the last decade and half. In the last half a decade, the share of crops in value added has declined by about 4 percentage points. Both major and minor crops saw declines in their share; each losing 2 percentage points. In proportional terms, however, the loss was greater for minor crops; in 2006-07, their share was 86 percent of that in 1999-00. The decline in the share of the cropping sector was made up by the increase in the share of livestock.

Table 9
Share of Sub-sectors in Agriculture Value-added in Punjab, 1999-2000, and 2002-2007

Sub-sector	1999-2000	2002-03	2003-04	2004-05	2005-06	2006-07
Crops	64.1	58.9	58.4	61.1	59.1	59.9
Major Crops	48.5	44.6	44.5	48.1	45.6	46.5
Minor Crops	15.6	14.3	13.9	13.0	13.5	13.4
Livestock	34.8	39.8	40.3	37.6	39.7	39.1
Crops and Livestock	98.9	98.7	99.7	98.7	98.8	99.0
Others	1.1	1.3	1.3	1.2	1.3	1.0

Source: Punjab Economic Report 2007.

There were no significant changes in terms of the share of various agricultural products in the land devoted to their cultivation. As shown in Table 10 cereals gained about a percentage and a half in total crop area largely at the expense of the various fodder crops. As mentioned above, there was a switch from traditional fodder crops to maize. The share of cash crops remained about the same while there was some increase in the amount of land committed to various fruit crops.

Table 10
Average Crop Share in Total Cropped Area in Punjab, 1990-95 and 2006-07

Period	Total Crop Area (000 hectares)	Percent Share in Total Crop Area				
		Cereals	Fruits and Vegetables	Fodders	Cash Crops	Pulses
1990-95	14,729	54.1	3.3	14.6	20.4	7.6
2005-07	16,382	56.5	3.9	12.3	20.2	7.1

Source: Agricultural Statistics of Pakistan 2006-2007.
Notes: (1) Cereals include wheat, rice, maize, millet, sorghum, and barley.
(2) Cash crops include cotton, sugarcane, tobacco and oilseeds.
(3) Total crop area increased by 11%; maize area by 59%; rice area by 37%; wheat by 11%; and grains by 18%.

Table 11 compares yields of various agricultural products in Pakistan with that of several other large systems in the developing world. rural outputs as is to be expected agriculture's share in total output steadily declined and now accounts for slightly more than one-fifth. This is not an unusual development; all developing countries go though a structural change that sees the share of agriculture decline

progressively while those of manufacturing and modern services increase. However, what matters in the case of the Punjab is the composition of agricultural output. This may not be in keeping with the province's endowments. Given agriculture's rich inheritance and the history of making advances if right conditions are present, it should be possible for the sector to become one of the engines of growth for the provincial economy. But for that to happen, the government will need to address some of the structural weaknesses that exist in the sector that have inhibited increases in both land and labor productivity. The best way for the government to bring change in the pattern of cropping and move the sector towards higher value added products is for the government to identify some "winners" on which both the government and the private sector could collaborate. The government could play the role of a facilitator.

Table 11
Yield Levels of Major Crops in Selected Countries and Areas, 2004-2006 (mt/ha)

Country/Area	Wheat	Rice (paddy)	Seed Cotton	Sugarcane	Maize
Punjab (Pakistan)	2.6	1.7	2.0	47.0	3.6
Pakistan	2.5	3.1	2.1	49.3	2.9
India	2.6	3.1	1.1	63.9	2.0
Punjab (India)	4.3	3.5	1.2	59.0	2.8
China	4.4	6.3	3.5	70.6	5.3
Egypt	6.5	10.1	2.8	121.0	7.9
USA	2.9	7.6	2.4	70.3	9.6

Source: FAO database; Agricultural Statistics of Pakistan 2006-2007; Agricultural Statistics of Punjab (India).

Choosing the winners in agriculture

As discussed above, Punjab has one of the world's largest contiguous irrigated areas in the world. Given that, is it economically inefficient for the province to have the bulk of its agricultural output produced by land-intensive crops rather than high-value products that command higher value per unit of cropped area? It would be economically prudent to change the pattern of cropping in favor of high yielding products also to emphasize the development of the livestock sector.

The question then is whether the design of public policy should help the sector of agriculture regain some of the place it has lost in the economy to other players? The "2020 Vision", while endorsing the view that there is much to be gained by focusing on the development of value-added agriculture in the province, does not give the sector the importance it deserves. This study recommends a much more aggressive approach towards the development of agriculture and turning it once again into one of the leading sectors of the provincial economy.

Within agriculture, the government needs to formulate strategies that would aim to improve productivity as well as create the incentives for a larger share of high value added crops. In spite of the rich endowment the province has in agriculture – in

particular the availability of water for irrigation – yields of most crops are lower than international comparators. Wheat and rice yields in Pakistan's Punjab are less than half of what have been achieved in the comparable environments of the Indian Punjab and Egypt. This not only suggests lack of appropriate technologies and inefficiency in using available technologies, but also indicates the enormous potential, which can be exploited without many additional resources.

The provincial government needs to adopt a comprehensive strategy to improve the output and productivity of the province's well endowed agriculture sector. There are several elements in this strategy. The first of these is to restore the efficiency of the sector of irrigation which has been seriously compromised as result of the neglect by the government which stretches back to the early days of Pakistan.

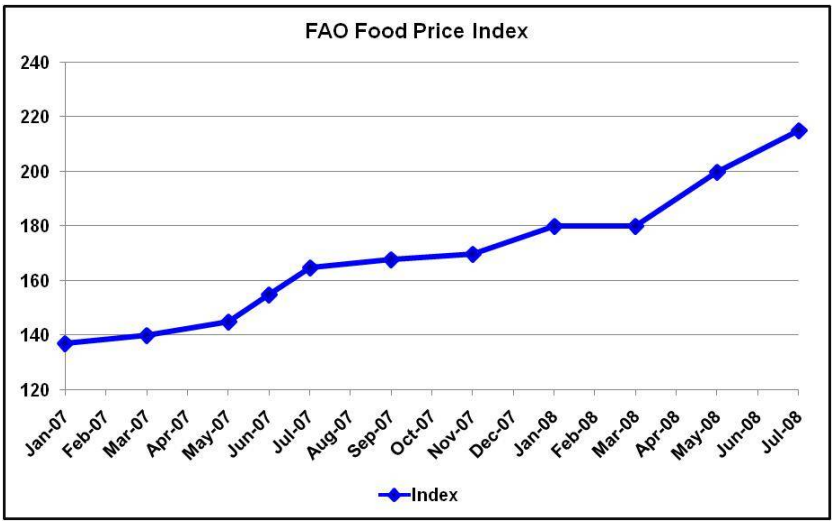
A growth strategy centered on agriculture

One way for Pakistan to pull out of its present economic difficulties is to think differently about economic development, to give up on the old ways of promoting growth and adopt a strategy that is more in keeping with modern times. If this approach were to be followed, agriculture will be the most affected sector. It could also become the most dynamic part of the economy, helping to accelerate the rate of GDP growth, reduce the incidence of poverty and narrow the income and wealth inequalities among different segments of the population and different regions of the country.

Two significant changes have occurred in the sector of agriculture in the last few years and both present Pakistan with amazingly rich opportunities. The first is the paradigm shift in the prices of agriculture products. For the first time since development economics came to be treated as a separate discipline, terms of trade have moved decisively in favor of agriculture. This is indicated in the accompanying table and graph that show the unrelenting increase in the index of food prices maintained by the Rome-based Food and Agriculture Organization, the FAO. The index has increased by nearly 60 per cent in the last 18 months.

Table 12
FAO Food Price Index

Time	Index
January 2007	137
March 2007	140
May 2007	145
Jun 2007	155
July 2007	165
September 2007	168
November 2007	170
January 2008	180
March 2008	180
May 2008	200
July 2008	215



The trade-off between manufactured products and the produce of land has moved in favor of the latter. Students of development economics will recall that in the early ’fifties, when the discipline was in its formative stage, several influential thinkers, in particular Raul Prebisch from Latin America, believed that the economic system of production dominated by the industrialized countries was tilted against the developing world. It was organized in a way that the prices of the commodities produced by the developing countries would always remain low relative to the prices of manufactured products produced by rich countries. The only way to escape from this trap was for the low income countries to industrialize and reduce their dependence on the industrial countries.

This thinking was at the heart of the earlier development plans that guided policymaking in many developing countries, including Pakistan. There were also political reasons why policymakers in Pakistan neglected the development of agriculture and concentrated their attention on industrializing the country. In the immediate post-independence period, policymaking in the country was in the hands of the urban elite which showed an urban bias in managing economic development. India also forced Pakistan to industrialize Pakistan quickly by halting all trade in 1949 thus depriving the struggling citizens of the new country of basic manufactures they needed. These aspects of Pakistan’s history we discussed in an earlier part of the report.

Pakistan is now semi-industrialized, having pursued for decades an import substitution policy. This involved protecting what economists call “infant industries”. Tariffs on imports were kept high, taxes were relatively low, and the state stepped in whenever some parts of the industrial sector faced difficulties. This kind of coddling by the state did not produce an efficient industrial sector that could compete in the international market place. One consequence of this was very poor performance in exports. The country is paying the price for this industrial policy as exports remain

stagnant while imports continue to increase. One way out of this difficulty is to build agriculture as an export oriented sector.

The recent changes in the terms of trade have brought about a new set of opportunities for the developing world. This change will last for the simple reason that the structure of demand and the refashioning of the system of industrial production have moved in new directions so that a given quantity of agricultural produce will buy a larger quantity of industrial output. This puts at great advantage countries such has Pakistan that have not realized the full potential of the sector of agriculture.

The second major change affecting agriculture is taking place right in Pakistan's neighborhood. It is the product of the rapidly growing demand for agricultural products in the oil producing and exporting countries of the Middle East. The transfer of incomes to the oil exporting countries that has resulted because of the catapulting in the price of oil has changed the structure of domestic demand in these countries. It has, in particular, increased the demand for high value added agricultural products – animal products, exotic fruits, vegetables, flowers and many types of processed foods. Some of these oil rich countries are looking for ways to ensure secure sources of supply of these important items for domestic consumption.

The problems they face are well illustrated by a recent analysis by two knowledgeable persons about the Middle East. "Saudi Arabia has no permanent rivers and lakes. Rainfall is low and unreliable. Cereals can be cultivated only through expensive projects that deplete underground reservoirs. Dairy cattle must be cooled with fans and machines that spray them with water mists. This is not, in short, a nation that would normally be associated with large scale agriculture," write Javier Blas and Andrew England in the *Financial Times*. The same description applies to Bahrain, Qatar, Oman and UAE. It is not surprising that these countries are looking to invest in countries that have the potential to export agricultural and livestock products.

Several Middle Eastern countries are interested in acquiring land which they can use for producing for their domestic markets. During a recent tour of Central Asia, Khalifa bin Zayed, the UAE president, underscored the need for his country to secure supplies for agricultural products. He had gone to the area, attracted by the region's empty land. "The UAE is looking at implementing some agricultural projects in Kazakhstan as part of its efforts to develop stable food supply sources for its needs," he said. Some countries have made tentative moves in Pakistan. Qatar is reported to be interested in setting up a large animal farm in the Punjab for importing meat and dairy products. But these are ad hoc developments which need to be channelized in a way that the country's agricultural sector benefits broadly.

The Pakistani state needs to get formally involved to invite these kinds of investments. How could this be done and in what way Pakistan could take advantage of this opportunity as well as the changes in the terms of trade? We suggest that the initiative should come from the provincial governments and should be directed at developing a partnership between the private capital and the state.

One approach would be to establish Agriculture and Livestock Production and Export Corporations, one for each of the four provinces. Since, the four provinces are differently endowed they will specialize in the production of different products. These should be joint enterprises with the provincial governments and the Middle Eastern investors as the owners. They should be listed in the Pakistani as well as the Middle Eastern capital markets. They should be given some of the land the government owns as equity with capital for developing the land coming from the partners in the Middle East.

This type of approach would bring several benefits to the Punjab. It would bring in new form of foreign direct investment into the province. It will help to commercialize agriculture. It will increase exports by developing new lines of products. It will have multiplier effects by introducing other farmers to new technologies and markets. And, it will help to increase the country's export earnings.

Pakistan has lost many opportunities in the past to develop its economy by encouraging exports. Consequently, the country remains dependent on foreign capital to pay for the growing trade deficit. This is not a sustainable strategy. Now, that the increase in the price of commodities and the demand for agricultural and livestock products in the Middle East (also China, which is making investments in agriculture in the countries with potential in that sector) has presented the country with another opportunity to expand exports, it must move forward. This opportunity should not be lost.

Unconstrained agricultural marketing

A good part of Pakistan's economic future depends on its ability to work its well endowed agricultural sector towards achieving its potential. There is a paradigm shift in international agricultural prices that opens new opportunities for Pakistan's agriculture. It could become the leading sector of the economy. It should be able to meet not only the growing demand for agricultural products for its large population but also significantly increase the country's export earnings. It could contribute significantly to reducing the incidence of poverty and narrow the inter-personal income gap. Agriculture could also reduce the growing disparities among the country's regions, increasing incomes for the more backward parts. Since women participate more actively in the agricultural workforce, increasing the sector's productivity would help to bring them out of poverty. However, for all that to happen the direction of public policy needs to be changed.

There are a number of areas of reform concerning public policy. Agriculture prices are one aspect of policy that needs to be carefully reviewed. When we refer to prices, we mean not only the prices of agricultural output but also of various inputs vital for agricultural producers. Pricing of water is important. Pakistan is a water scare country; its prices should reflect its opportunity cost. Made to pay the scarcity value of water, the formers will change their cropping pattern towards less water-intensive crops. Another area crying for reform is marketing which remains antiquated and is an important reason for the relatively poor performance of the sector.

The Agricultural Produce Markets Act of 1939 regulates agricultural marketing even seven decades after its promulgation by the British rulers of that day. The Act had an all encompassing purpose. It was "to provide for the better regulation of the purchase and sale of agricultural produce and the establishment of markets for agricultural produce in" the country. The Act has been amended from time to time to meet the different environments of the provinces – in particular in the Punjab and Sindh. That notwithstanding, the basic purpose of the act and the rules framed under it have not been changed. By virtue of this piece of legislation, the state continues to play an important – in fact the dominating role – in agricultural marketing. This is the case even though the purpose for which the Act was originally framed no longer exists.

In the first part of the 20th century when the Punjab and Sindh began to produce large marketable surpluses of agriculture produce, marketing came to handled mostly by the Hindu *bania* class – merchants who belonged to one particular caste of the highly variegated Hindu religion. While marketing was controlled by the Hindus, most of the farming community – those who owned the land as well as those who cultivated it – were Muslims. This was particularly the case in Sindh. The Punjab had a large number of Sikh peasants but the Sikhs did not own much land. If they were proprietors, they were mostly small. They too depended on informal credit markets.

This division of these two aspects of the agricultural economy by religion was bound to be problematic. Problems developed quickly as agriculture in this part of British India came to be commercialized. The farmers needed credit during the planting and harvesting seasons and in the absence of formal banking and credit systems began to rely increasingly on the Hindu money lenders who were mostly shop owners in the countryside. Overtime, the Muslim peasant became highly indebted to the Hindu money lender. This was the subject of Malclm Darling's seminal work, *Punjab Peasant in Debt and Prosperity* which profoundly influenced the making of public policy in what is Pakistan today. The situation deteriorated as the amount of money owned by the peasants increased. The moneylenders used the increasing economic power they had over the peasantry by demanding

significant price concessions from the peasants when they came to the market to sell their surplus produce. In the Punjab, another act – *The Land Alienation Act of 1901* – had made it illegal for the money lenders to foreclose landed property. Price, therefore, was the only mechanism available to the money lenders to get back the money they had lent and make a profit on these deals. The rates of interest the money lenders charged were exorbitant and they were unforgiving in collecting their dues. The farmers took out new loans to pay back the old ones. Their indebtedness increased exponentially.

For the British this was an awkward development particularly in 1939 as they prepared for war against the Germans. These areas, in particular the Punjab, were important recruiting grounds for the British Indian Army. The government reacted by essentially nationalizing agricultural marketing. The 1939 Act put the government in charge of this activity and that is how it has remained for almost seven decades. This can't be allowed to continue since the state's heavy hand on marketing seriously retards the development of agriculture, in particular its commercialization.

The partition of the Indian subcontinent and the mass exchange of population that accompanied it has eliminated the original purpose of the Act. Hindu money lenders are gone; their place has been taken up by a new breed of Muslim shopkeepers. The peasants and small farmers continue to remain in debt but there is no communal dimension to the problem any more. Given that why has the Act been allowed to remain on the statute books? One reason it has continued is that it affects small and medium-sized producers more than the large landlords and the former don't have the political clout or the economic muscle to bring about a change.

Another reason why the governments have been reluctant to do away with the Act is that it supposedly protects the poor consumers, particularly in the urban areas. By strictly controlling agricultural marketing, the state, at least in theory, is able to keep the prices of agricultural commodities and animal products within the range of the purchasing power of the poor. However, it does not work that way. Most of the products that reach the market other than food grains are not important items of consumption by the poor. By keeping their prices low, there is in actual fact a transfer of incomes from the poor farmers to the middle class consumers in the urban areas; from the countryside to the urban areas. This has always been the orientation of public policy in Pakistan, one reason why the incidence of poverty is so much larger in the rural areas compared to its level in towns and cities. This is also the reason why income differences between rural and urban areas continue to widen.

Our recommendation to the policymakers is to repeal the Agriculture Markets Act of 1939 altogether and open the marketing of all agricultural products to competition. With one stroke, the government would help to commercialize agriculture. The

markets that are the property of the state should be privatized through auctions. The only role for the state should be to regulate the safety of the products being sold in the market.

There is a fear that such a move would create marketing monopolies and thus hurt the consumers. We don't believe that will happen since the agriculture sector is far too large, dispersed and involved in the production of large number of products for the purchasers to overwhelm the suppliers. The reverse will happen; competition will lower the price for the poor consumers. Every one would benefit including the overall economy.

Policy recommendations

- The government should identify the crops and products that will receive its special attention. Those that may qualify for this treatment are vegetables, fruits (mangoes and citrus), flowers, oil-seeds, basmati rice and cotton.
- Five year development plans for each of the winners should be formulated and included in the annual economic reports.
- Land titling policy needs to change with the computerization of land records and handing over the responsibility for their maintenance to the institutions of local government. Landholders should have access to these records on the internet. Such a program is being funded by the World Bank but is not making much progress because of the pressure groups that are against the pursuit of this approach.
- Land markets need to be developed and financial institutions need to be encouraged to provide credit to the sector with land as collateral. It may be necessary to establish land courts to adjudicate on land disputes, replacing the current system of settling disputes by the officials of the land administration system.
- Agriculture research should be reorganized to focus attention on the crops and products selected as potential winners. The previous Punjab administration's program to encourage research by delinking it from the teaching institutions and by creating semi-autonomous entities focused on high potential products should be continued.
- The government's control on the prices of agricultural products including livestock products should be eliminated and the private sector should be allowed to set prices without interference by the provincial and local governments.

Livestock:

The development of the livestock sector is critical for improving the welfare of the poor. It would augment their incomes from agricultural activities. Livestock contributes about 9.4 percent to the GDP and 40 percent value addition to agriculture sector. The country is earning close to $1 billion in dairy exports every year. Pakistan has one of the world's largest livestock populations. It is estimated for the entire country at 125 millions of which 50 percent are large ruminants (cattle and buffalos) and 50 per cent are small ruminants (sheep and goats). Table 13 provides estimates of the animal population in the province in 2006. The livestock population is growing at the rate of 3 to 5 percent a year. Punjab, with 52 percent of the total population, has the largest share followed by Sindh with 26 percent. About 75 percent of the population is engaged in the sector of livestock but most of those working in this are small operators. More than 90 percent of those participating in this activity possess less than 4 animals. Only 5 percent of those in the livestock business had more than 100 animals. Any effort to develop livestock into a meaningful economic sector producing high value added products while increasing the incomes of the poor must take account of the size distribution of animal populations. Table 14 provide some basic data on the distribution fo the livestock population in the Punjab.

Table 13
Number of Livestock in Punjab, Selected Years
(in thousand)

Livestock	1986	1996	2006	Percent change 1986-2006	Percent Share of Punjab in Pakistan (2006)
Cattle	8818	9382	14412	63	49
Buffalo	11150	13101	17747	59	65
Goat	10775	15301	19831	84	37
Sheep	6685	6142	6362	-4	24
Poultry (domestic)	27848	24511	25906	--	35

Source: Pakistan Livestock Census Reports of 1986, 1996 and 2006.

Table 14
Livestock Holdings in Punjab, 2006

Livestock	Holders (million)	Animals per households	Cattle and Buffalo			Goat and Sheep		
			1-2	3-4	1-4	1-5	6-15	16-30
Cattle	3.66	4.1	46.4	27.3	73.7	--	--	--
Buffalo	4.06	4.4	43.3	28.3	71.6	--	--	--
Goat	4.07	4.9	--	--	--	74.7	21.6	2.8
Sheep	0.80	8.0	--	--	--	68.7	19.7	7.0

Source: Pakistan Livestock Census Report 2006.

As shown in Table 15 both the productivity of the large ruminants as well as the consumption of the products are very low. Like production per animal in a fraction of what is obtained in the countries that have large animal population. Increasing their productivity would not only add to the total output of the livestock sector, it will also lower prices and increase the level of consumption.

Table 15
Average Annual Output and Consumption of Milk and Meat in Pakistan, 2002 to 2007

	Milk Output and Consumption (000 mt)					Meat Output (000 mt)	
	Average Annual Gross Output	Percent Change 2002-07	Average Annual Consumption	Percent Change 2002-07		Average Annual Output	Percent Change 2002-07
Cow	11973	31	9579	31	Beef	1240	41
Buffalo	24473	9	19578	9	Mutton	656	19
					Poultry Meat	440	49
Total	36446	16	29157	16	Total	2336	23

Source: Agricultural Statistics of Pakistan 2006-2007.

As shown in Tables 16 and 17, the government has not given the amount of policy attention and has not spent the quantum of resources on livestock development that would be justified by the sector's importance.

Table 16
Expenditure on Agriculture, Livestock and Irrigation in Punjab, 2003-2008
(Million Rs.)

Expenditure by Sub-sector	2003-04	2004-05	2005-06	2006-07	2007-08[1]	Total	Average
Current Expenditure	6751	7340	8655	9662	10439	42847	8570
Agriculture	1814	1945	2466	2500	2686	11411	2282
Livestock	675	713	786	910	960	4044	809
Irrigation	4262	4682	5403	6252	6793	27393	5479
Development Expenditure	2790	5389	5979	7713	15867	37738	7548
Agriculture	948	2424	1066	1375	3286	9099	1820
Livestock	148	277	812	1207	1431	3875	775
Irrigation	1695	2688	4101	5130	11150	24764	4953
Total Expenditure	9541	12729	14634	17375	26306	80585	16117
Agriculture	2762	4369	3532	3875	5972	20510	4102
Livestock	823	990	1598	2117	2391	7919	1584
Irrigation	5957	7370	9504	11383	17943	52157	10431
Total Provincial Expenditure	149387	182214	224595	321000	410321	1287517	257503
Current	121999	133987	158271	205838	243487	863582	172716
Development	27388	48227	66324	115163	166834	423936	84787

Source: See Table 14. The data for 2007-08 are budget estimates.

Table 17
Share of Agriculture, Livestock and Irrigation in Provincial Expenditure, 2003-2008

Expenditure	2003-04	2004-05	2005-06	2006-07	2007-08	Average
Current	5.5	5.5	5.5	4.7	4.3	4.9
Development	10.2	11.2	9.0	6.7	9.5	8.9
Total	6.4	7.0	6.5	5.4	6.4	6.3
Average Growth Rate (2003-04 = 100)	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2004-08**	
Expenditure on A, L and I	22.1	6.5	10.7	31.7	17.8	
Total Provincial Expenditure	11.6	9.4	33.2	11.2	16.4	

Source: Government of Punjab, Department of Finance. The data for 2007-08 are based on budget estimates.

The Punjab province needs to give greater attention to the expansion of the livestock sector. This is for two reasons. One the consumption of livestock products is less than that required – per capita availability of milk is 80.5 litters and that of meat 60.5 kg, considerably less than the minimum required level of 27.5 grams of proteins daily. The second reason is that an increase in the output of the sector can contribute significantly to poverty alleviation, improvement in income distribution and accelerating the rate of economic growth.

Policy recommendation

- It should include making credit available to small producers who need to improve the quality of their herds, the number of animals they manage and access to the markets.
- Setting up collection centers and marketing chains, and research and development to improve the quality of livestock. According to one estimate if 5000 small farmers in each district could be given credit to increase their stock of large ruminants by a total of 10 animals- six buffalos and four cows- milk production alone would increase by 100 liters a day, equivalent to an increase of 0.5 million liters a day per district, or an increase of 30-40 percent of total output per district.[68]
- Improving the health of the animals must have a high priority. This began to receive considerable attention by the previous administration that set up a system making use of the institutions of local government. Some of the health services that are of particular consequence for the sector could be provided by the private sector.
- The Punjab operates system of price control meant to provide protection to the consumers of animal products including milk and meat. This should be done away with leaving price to be determined by the market. Deregulation of prices will bring more operators into the sector increasing the proportion of milk that gets processed at this time. The state needs to be much more active in ensuring the quality of the products delivered to the consumers. A system of certification needs to be introduced that clearly identifies the inspectors who are issuing the documents.
- Another government initiative should be to partner with the private sector to establish dairy development and extension centers in each village with a population of 500 and more farmers[2]. The center should register the farmers of the area and provide them with facilities for milk collection; supply of processed food; artificial insemination services; health services; parasite control; natural breading services through pedigreed bulls; credit facilities;

[68] Riaz Muhammad Junejo, "Rural dairy farmers and alleviation of poverty", *Dawn: Business*, October 29, 2007, p. III

and arranging cattle shows to increase competitiveness among these farmers.

Irrigation

As discussed in Part One of the paper, the British left the Punjab with a well developed system of irrigation that brought water from the Indus River and its tributaries to the central,southern and western parts of the province. After independence, Pakistan made some additions to the system. However, most of the additions affected the province of Sindh. In the case of the Punjab, considerable amounts of resources were spent in the 'sixties and the early 'seventies to consolidate the original system. The Indus Water Treaty of 19660 with India, left Pakistan the use of the Indus and two its tributaries, the Jhelum and the Chenab, while India was awarded the use of the eastern rivers – the Ravi, the Beas and the Sutlej. A series of "link canals" transferred water from the western to the parts of the eastern rivers that flowed in the Pakistani territory.

The most important addition to irrigation in the Punjab made after Pakistan became independent was when the farming community became familiar with the technology for sinking tubewells to draw ground water. As noted earlier, millions of farmers from East Punjab, the part of the province that became part of India following its partition had relied on wells to irrigate land. These were shallow wells that drew water by the use of animal power. Sometimes in the late 'fifties, once these farmers had settled on the land vacated by the Sikhs who had migrated to India, they began to invest in sinking tubewells. The fact that a large number of wells had become operational was discovered by Ghulam Muhammad, an economist working at the Pakistan Institute of Development Economics, the PIDE, when he carried out field work in the Punjab. He published a paper in the *Pakistan Development Review*, the journal of the PIDE, in which he estimated that some 10,000 wells were already operational in the province[69].

Tables 14 and 15 provide data on the extent of irrigation in Pakistan and the Punjab. Of the 19 million hectares of irrigated land in the country, 14 million, or 74 per cent, are in the Punjab. Canals were no longer the primary source of irrigation for the country and for the Punjab. In 2005-06, canal irrigated area accounted for only 37 per cent of the land receiving irrigation. Tube-wells supplied water to a much larger amount of land. The land irrigated by this source accounted for 11.4 million hectares or The Punjab's share in irrigation is relatively less compared to other sources. In the Punjab, canals irrigated 3.5 million hectares, slightly less than one half for the country as a whole. However, "canal tubewells" in the province accounted for 95 per cent of the land irrigated in the country from this particular source.

[69] Ghulam Muhammad,

That the canal irrigation system had not be well maintained by the government came to be recognized by a number of irrigation engineers who were familiar with the system. One of them, Syed Salar Kirmani wrote a paper for the World Bank where he was working in a senior position after having held a number of senior jobs in Pakistan's irrigation sector that one-half of the water that was delivered into the canal system was wasted as a result of evaporation and seepage[70]. This knowledge did not lead to action by the government for more than a couple of decades. It was only in the early 2000s that the government launched a program funded by the World Bank to increase the efficiency of the canal system.

Industry

In the past policymakers in Pakistan were inclined to keep two objectives in view while designing public policy aimed at industrializing the country. The first was to gain self-sufficiency in items of basic consumption; the second was to exploit the country's perceived comparative advantage. In both cases the industrial policy overlapped considerably with trade policy; at times it was concern with some aspects of international trade that determined the content and orientation of the industrial policy. To take one example: The Indo-Pakistan trade war of 1949 forced Pakistan into adopting the first approach – to attempt for self sufficiency in basic manufactures. The model of planned growth adopted by the Government of President Ayub Khan led to the second approach – to develop industries using the country's comparative advantage. Neither of the two approaches created an efficient industrial sector.

Instead, Pakistan needs to adopt an approach based on three considerations: selecting the winners, both industries and enterprises, that could exploit niches for themselves in the rapidly changing global system of production; decentralizing industrial policymaking to the provinces so that each province can take advantage of its endowments; choosing the industries that can play a role in creating a large number of jobs for the country's rapidly increasing work force. With this as the approach the country will have not one but a number of industrial policies – at least four, one for each province of the country. It might also be appropriate to adopt separate industrial policies for the Federally Administered Tribal Areas, the FATA and for Azad Jammu and Kashmir. In fact, the United States is working with Islamabad to develop a FATA industrial policy aimed at increasing the level of employment in the area.

In Punjab, the industrial policy should aim at expanding the food processing sector as well as small and medium industries focused on small engineering**.** In Sindh, to take another example, the industrial policy should take advantage of the large

[70] S.S. Kirmani,

industries that are located in the province. The aim of policy should be to develop further the industrial base so that the existing industries and corporate entities working in the sector can acquire scale and expertise that would help them to compete with the tens of thousands of multinational corporations that are now operating in the global economy. The Indian industrial enterprises have been able to enter the global production system through mergers and acquisitions. Pakistan, however, has been left way behind.

This section is presented in four parts. The first looks at the process of macroeconomic adjustment the new government needs to make in order to restore balance to the economy. We will argue that the called for adjustment needs to be done in a way that it does not compromise the country's growth prospects. The second section deals with how the global production, trading and financial systems have changed and what these changes mean for policymaking in Pakistan. The third section gives a brief historical view of industrial policymaking in Pakistan. This is discussed since, as suggested in this study, politics of economic decision-making is an under-analyzed subject. The fourth section picks on the role the provinces can – and should – play in the making of industrial policy. If that were to be done, industrial development should proceed on very different tracks in the provinces. We will illustrate this by making use of the Punjab as a case study.

The need for adjustment while not hurting growth prospects

It is appropriate to discuss the current macroeconomic situation in the country since the policies adopted in order to deal with the problems faced will a significant bearing on the course the country's industrialization will take. Recent economic developments pose many serious problems for today's policymakers. They have also created an opportunity for rethinking the priorities the state should adopt with respect to quickening the pace of development – Pakistan is now a laggard among the large economies of Asia. While promoting growth, policymakers must also decide the direction in which the economy should proceed. The policies that helped the economy to grow at 7 per cent a year over the last half a dozen years did not do enough for the poor, widened interpersonal and inter-regional income gaps, and did not increase the integration of the economy with the global economic system. They also did not move the industrial sector in the direction that would have made it competitive in the global economy. The model of growth pursued did not solve the deep rooted structural problems the economy has faced for decades while some more have been added to those that already existed.

Not for the first time in its turbulent economic history, policy makers in Pakistan are faced with some critical choices. The economy has lost its balance. Fiscal deficit is increasing at an unsustainable rate. It has already reached the level where financing it could lead to a number of unpleasant consequences. Resorting to borrowing from the central bank, as was done in the first half of 2008 would result in inflation. It will

also crowd out the private sector at the time it needs to make investments to take advantage of the changes taking place in the global economy. Deficit financing thorough the banking system is not the route the policymakers should take. It would exacerbate the inflationary pressures that are already present in the economy. On April 16, 2008 the new government revealed that the rate of increase in general inflation had doubled in the last one year, reaching 14.2 per cent a year. The food inflation was at more than 20 per cent a year. The situation has further worsened. This rise in the level of prices was the result of both public policy and the rise in global commodity prices. The previous government had already borrowed heavily from the central bank while the price of oil and several agricultural commodities was increasing at unprecedented amounts.

The second way of financing the deficit would be to borrow from the market. This would raise interest rates and also crowd out private investors, inhibiting new investments in the economy. The third would be to reduce government's non-development expenditures. One way of reducing government expenditure and realigning its priorities would be to involve the provinces in the decision making process. What is required, therefore, is a balanced approach involving some central bank financing, some market borrowing, some privatization of the assets still owned by the government, and some reduction in the government's current expenditure. Whichever combination of policies is adopted it should be done in a way that the economy's medium- and long-term growth objectives are not compromised. Adjustment should be done within the context of a medium-term development framework[71]. Unfortunately, such a framework does not exist. The Planning Commission's *Vision 2030* spells out some long-term strategies but it did not guide policymaking by the previous regime[72]. The framework within which adjustments should be undertaken should have built-in trade, industrial and agricultural development policies. These policies should be developed with full recognition given to some of the important changes taking place in the structure of the global economy.

In this broad overview of the opportunities available to Pakistan in the industrial sector we will focus on a number of considerations that should inform the policymakers as they seek to industrialize the country. One, they should be mindful of the history of industrial development in the country, a subject that we discuss in the sub-section that follows. Two, the changes that have occurred in the global economic system – in both the system of industrial production as well as in the system of international trade – should also be kept in mind as policymakers begin to

[71] A comprehensive program for adjustment and growth was prepared by the Institute of Public Policy in its first annual report, Lahore, May 2008. See, the Institute of Public Policy, *State of the Economy: Challenges and Opportunities,* Lahore, 2008.

[72] Government of Pakistan, *Vision 2030*, Islamabad, the Planning Commission, Islamabad, 007.

address this subject once again. Three, much of the industrial policy should be the responsibility of the provinces. This will lead to the state placing different emphasis in different regions of the country. Four, this approach to policymaking should result in considerable emphasis on the development of small and medium enterprises. The development of this part of the industrial economy has not received as much state attention as it deserves.

Global Changes: how the international production and trading systems have changed and what these changes mean for Pakistan

In the design of an industrial policy appropriate for the country at this time, Pakistan must factor in the changes that are taking place in the global economic system. Three of these are important. The global production system is changing rapidly as multinational corporations are able to use the rapid development in information and communication technologies to disperse their activities. The firms located in the industrial world are either outsourcing a great deal of what they used to do themselves or are taking their operations to the places that offer better prices for their inputs. This dispersal of activity has led to the second important change in the structure of the global economy. Now parts and components have become the largest component of international trade.

That the changes in the global system of production and trade would suggest an industrial policy aimed at the development of small and medium industries with the ability to exploit external markets is reinforced by the fact that Pakistan today confronts a serious problem of poverty. What is the incidence of poverty is a hotly debated subject in the country. The previous government's claim that the incidence had declined by 10 percentage points, from 34 percent of the population to 24 percent, is contested by a number of independent analysts, most notably Akmal Hussain and the Karachi-based Social Policy and Development Centre. Hussain [73] claims that during 1998-99 and 2004-05, there was no significant reduction in the level of poverty. The SPDC found that the decline in poverty in 2004-07 was of the order of 3 to 3.5 percentage points rather than the much larger figure suggested by the previous government. The reason for recalling this debate is not to settle it one way or the other[74]. The purpose is to underscore the important point that the laissez faire approach to economic development that guided Islamabad did not do much to the incidence of poverty and to narrow the widening inter-personal and inter-regional disparities. The policymakers during this period placed their faith in what was once called the "trickle down" approach to economic development.

[73] Akmal Hussain, "Fallacy of Poverty Reduction", *Dawn*, February 20, 2008, p. 13.

[74] Social Policy Development Centre, *Annual Report, 2007*, Karachi, 2007.

If alleviating poverty is to be one of the main objectives of public policy, then it is clear that a new approach to industrialization should be one of its important components. Generation of employment should, therefore, be built into the industrial policy. This is one additional reason why Pakistan needs to focus public policy on the development of small and medium sized industries.

Why can't investment choices be left to the private sector as advocated by the exponents of *The Washington Consensus*? This approach, articulated by the development finance institutions located in Washington, sought to reduce the role of the state in the management of the economy and promoting that of private enterprise. It also advocated more openness of the economy to the outside world by removing constraints on trade and the movement of capital. It may work in the economies where the private sector has developed without much handholding by the government. That is not the case in Pakistan. As noted below in the discussion of the history of industrial policymaking in the country, it was the government that was behind the development of private enterprise. Given that, leaving further industrial development to private entrepreneurs is not likely to serve national interests. The state will need to play an important role but the nature and scope of this should be different from those performed in the first sixty years of independence.

History

The making of industrial policy in Pakistan has a chequered history. Industrial policies were made as either part of the medium-term development plans or in response to some crisis or other the country was faced with. Five industrial policies or distinct approaches have left a lasting impression on the structure of industry in the country. The first was made in 1948, soon after Pakistan gained independence, and was developed further as a consequence of the Indian decision in 1949 to place a trade embargo on Pakistan. The second was embedded in the Second (1960-65) and Third (1965-70) Five-year Development Plans adopted by the government headed by President Ayub Khan, the county's first military ruler. The third was adopted by the administration of President (later Prime Minister) Zulfikar Ali Bhutto. The fourth was formulated by the several democratic governments that held office in the eleven year interregnum, 1988-1999, between two long rules by the military. And the fifth was adopted by the government of President Pervez Musharraf, the fourth military ruler. It would be in order to briefly discuss the approaches adopted in these five separate policies to prepare the ground for the discussion of what should be the content of a new policy.

The first generation of Pakistani leaders was extremely concerned with the Indian attitude towards the country they had created. There was an impression that the Indian leadership would attempt to smother Pakistan by using economic means. This feeling was reinforced by some of the early decisions taken by New Delhi regarding

the release of funds that were due to Pakistan as a result of the Partition Agreement. The Indian government blocked the transfer of funds that fell in the category of what was called the "Sterling Balances"[75]. It took a visit to the Indian capital by the senior leaders of Pakistan and persuasion by Mahatma Gandhi to get the amounts owed to Pakistan released by the Indian government. But that did not end India's hostility towards its neighbor. When, in 1949, Pakistan chose not to follow other countries of what was then called the Sterling Area (now the Commonwealth) in devaluing its currency with respect to the American dollar, India retaliated by launching a trade war against its neighbor. "India will not pay 144 of its rupees for 100 Pakistani rupees" stated Sardar Vallabhai Patel, a powerful minister in the cabinet headed by Prime Minister Jawaharlal Nehru. With that statement all trade between the two countries came to a virtual halt.

Pakistan at that point was dependent on India for the supply of basic goods of consumption; a significant proportion of its imports came from India and a significant proportion of its exports went to that country. The Indian reaction to the Pakistani decision with respect to the value of its currency caused enormous amount of deprivation in Pakistan. The government responded by adopting a series of policies that were to have a lasting impact on the development of the country's industrial base. The government encouraged private leadership in the process of industrialization, provided incentives to private entrepreneurs to invest in the production of consumer goods, and gave the fledging private sector protection from external competition. All this resulted in the rapid growth of the industrial sector and rapid increase in the rate of increase in industrial output. Karachi, at that time the country's capital, became the industrial center of the new country.

It is interesting to note that while India had chosen to industrialize by encouraging the establishment of heavy industry in the public sector, Pakistan went in the opposite direction. It encouraged the development of private enterprise and growth of consumer industries. This approach, as discussed below, was reversed by the administration of Zulfikar Ali Bhutto.

The government of Ayub Khan continued with the approach that placed private enterprise at the front of the effort to industrialize. But there were two differences. The Ayub Khan government used the industrial licensing policy to bring about a wider dispersal of industrial ownership. It was keen to get areas other than Karachi to industrialize. And, it used development finance companies such as the Pakistan Industrial and Commercial Investment Corporation (the PICIC) and the Industrial Development Bank of Pakistan (the IDBP) to influence the scope of industrialization.

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[75]See Stanley Wolpert, *Gandhi's Passion: The Life Legacy of Mahatma Gandhi*, New York, Oxford University Press, 2001, Chapter 24 for a discussion of this episode.

PICIC and IDBP received generous financial support from the World Bank. Development thinking at that time was in favor of using publicly owned development finance corporations to quicken the pace of industrialization. An important consequence of this policy was to encourage the establishment of small units in the areas other than Karachi which, as noted above, had by then emerged as the industrial center of the country. Textile spinning and weaving sectors were most affected by this policy. Dozens of spinning mills with no more than 12,500 spindles each were set up. This was way below the optimal scale even at that time. The approach adopted by the Ayub government was to introduce considerable inefficiency in the sector, a development that has continued to keep the textile industry relatively more backward to this day.

The third approach towards industrialization occurred during the first few months of the tenure of the administration headed by Zulfikar Ali Bhutto.[76] His decision to nationalize large scale industries suddenly increased the presence of the public sector in industry and finance. By this action he sought to take Pakistan on the route and in the direction on which India under Jawaharlal Nehru had embarked after gaining independence. The decision to set up a number of public sector corporations to undertake new investments in the industrial sector and to provide financial support to them through a new development finance, the National Development Finance Corporation, further strengthened the role of the state in the industrial sector. This approach had some beneficial effects. As discussed in the section on agriculture, it increased the supply of fertilizers and pesticides for the farmers. But the government did not confine itself to the nationalization of large enterprises. It also took over small agro-processing enterprise thus setting back the commercialization of agriculture be several decades. The result was the introduction of several distortions into the management of the economy. It also contributed to widespread corruption that has continued to bedevil the country to this day.

The democratic administrations that held office in the 1990s took some initiatives to bring back the private sector as the leader in economic development by privatizing some of the state's economic assets, in particular large banks and large industries. But privatization did not energize the industrial sector. There was no attempt at product innovation, not much attention given to technological improvement, and very little effort made at market penetration. The old industrial families with their assets restored to them went about doing business in the old way. While the government was stepping back from direct involvement in industrial management, large private sector industrialists were not prepared to let go the hand of the government. They were not prepared to step back but wished to stay close to the government.

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[76] The economic policies of the period of Zulfikar Ali Bhutto (1971-77), their genesis as well as their impact are discussed at some length in *Shahid Javed Burki, Pakistan under Bhutto, 1971-77*, London, Macmillan, 1980.

From our perspective, the most important policy initiative of this period was the establishment of the Small Enterprise Development Authority, the SDMEDA. This was set up in October 1998, as a federal corporation with four regional offices, one in each province of the country. The corporation's mandate was to facilitate the development of small and medium-sized enterprises by helping them to improve their lines of products, introducing the entrepreneurs to new technologies, introducing them also to new ways of doing business and new management practices, helping them to do cost benefit analysis of the investments they were contemplating to make, and making them aware of the opportunities available in both internal and external markets.

However, it was only under President Pervez Musharraf that the private sector acquired a really prominent role. This was the fifth approach to industrial policymaking in the country's history. Under it the pace of privatization quickened as did deregulation and opening the economy to the outside world. Some significant adjustments were made in the tariff regime that provided incentives for the development of such large scale industries as automobiles and consumer electronics. The government also gave considerable room to the financial sector to participate in the process of industrialization by allowing choices to be made on the basis of market considerations rather than looking to the government for direction and guidance.

The room for maneuver allowed to the private sector did not develop enough confidence among the entrepreneurial class to stand on its own feet and deal with the changes occurring in the globe economic system without government intervention. The failure of the textile industry to make use of the opportunities created by the end of the Multi-fiber Arrangement (MFA) on January 1, 2005 is the most telling example of the lasting impact on entrepreneurial behavior of the policies and approaches towards industrialization adopted in the past several decades.

While allowing considerable space to the private sector within the industrial domain, the Musharraf government should have also developed the regulatory system to provide protection to the consumers, encouraging competition in the private sector, and improving corporate efficiency. Several regulatory bodies were set up in the sectors of finance, industry and public utilities but they were not allowed the autonomy without which they could not effectively operate. One way of ensuring the independence of the regulatory agencies from the control of or influence by the executive branch of the government is to have the legislature approve the appointments of the chief executive. Although the Musharraf government created a number of regulatory bodies, it retained the authority to appoint the heads of the agencies. Most appointments involved people who were close to the government. Consequently, the regulatory agencies did not achieve the desired amount of autonomy.

This brief history of Pakistan's industrial development shows the changes that occurred in the way those who held the reins of power looked at the sector. The frequent changes in industrial policy noted above have kept the industrial sector relatively backward compared to the developments in other large Asian economies. How should the government approach the sector now that political power is in the process of passing to the elected representatives of the people?

The state's role

For the reasons already discussed, the state has a diminished role to play in industrial development compared to its very active involvement in earlier times. The withdrawal of the state does not mean completely surrendering the area to the private sector. If that were to be done – and to some extent this was done during the just concluded Musharraf era – the pace of industrial progress would be slow and its direction not totally appropriate for the country. We believe that the state needs to be invited back to play a more significant role in industrialization than was advocated by those who believed in *The Washington Consensus.*

Given Pakistan's history and the structure of its politics it would be right to divide the role of the state into six fairly distinct parts. These are picking the "winners" towards which the private should be guided but not forced. The ultimate decision to invest should be entirely the responsibility of the private entrepreneur. Second, once the decision has been taken to invest, a number of "facilitation" activities should be carried out preferably by government agencies. The type of facilitation functions that state agencies can meaningfully perform were discussed above in the context of the mandate currently available to SMEDA. Third, a better cooperation between the industrial and financial sectors should be encouraged so as to meet the financial needs of the industry. Fourth, there must be attention paid to research and development without which the industries located in the country will not be able to increase the level of productivity required for competing in the global market place. Fifth, the state, operating at the provincial level, should consolidate the regulatory systems that are in place to day. They were established at various points in the country's history in response to dealing with the problems that don't exist anymore. There perpetuation does little to improve the performance of the industrial sector. Most of the system creates rent seeking opportunities for junior officials thus adding to the burden of the industry. Sixth, a regulatory system needs to be in place aimed at preventing the development of monopolies in various sectors of the economy in which private entrepreneurs are actively involved.

Contours of a new industrial policy

Once we disaggregate government's functions, we need to identify what is the most appropriate place for their location. In the past the central government has tended to concentrate these activities in its hands, leaving out the provinces. This tendency to centralize economic policymaking needs to change in favor of greater involvement of

the provinces. Were that to happen, the policies each province will adopt will better suit their circumstances.

The province of the Punjab, recognizing its endowment and recognizing also its geographic location, should pay particular attention to the development of small and medium enterprises. It has a well developed skill base for developing a number of industries for which appropriate inputs and skills are available. These include agro-processing, small-scale engineering, leather products, and the IT industry. This is an illustrative list of possible" winners" needing the support of the government. They could become the focus of state's attention.

Having chosen the winners, the federal government should be persuaded to redefine the role of the SMEDA. The corporation should be divided into six separate entities, four for each of the four provinces and one each for the Federally Administered Tribal Areas (FATA) and Azad Jammu and Kashmir. These corporations should work to promote the development of the industrial sector in ways that conform to the comparative advantage of each geographic entity. By focusing on the development of an existing corporation, the Pakistani state will not need to create a new government enterprise.

As already discussed the SMEDA is concentrating its attention on "facilitation" – helping the selected enterprises and entrepreneurs to establish new production facilities or improve those that are already operating. In addition, the corporation should stretch its mandate at both ends of the spectrum it is currently engaged in. It should do more analytical work aimed at identifying the "winners" and in helping its client's access sources of finance. Winners should be identified by carefully studying the opportunities available in both domestic and external markets for products. This examination should lead to the identification of niches into which the country could move. For the Punjab, these niches are likely to be in the areas already indicated.
Having picked the winners, the corporation should continue with its facilitation work but with greater attention given to developing appropriate technologies aimed at improving the productivity of the sectors chosen for attention. For that to be done effectively, the SMEDA will need to build the capacity to do R&D work. Ideally this should be done in association with the private sector with the private entrepreneurs required to pay for the help they are receiving.

Another new area for the SMEDA should be to get engaged in facilitating the access to sources of finance by the selected winners. It would be important to acquaint the people and enterprises being helped with new instruments of finance that have been developed in recent years. These include private equity and venture capital which provide equity rather than loans in return for claiming a significant share in future profits once the selected enterprises become successful.

The government should encourage the private sector not only to work with the development of the “winners’ it has identified – the product lines that have good prospects in the international market place and can also meet the changes in the structure of demand as the size of the middle class develops – it should also encourage private enterprise to work with some groups that have the potential to become entrepreneurs. In the case of the Punjab, two groups that need help and would do well as entrepreneurs are the young graduates from the rapidly expanding educational system and women. Two a certain extent the two groups overlap. Some of the “winners” include lines of product in which the members of these two groups have distinct comparative advantage. The IT sector, health services, higher education, and the fashion industry are the areas in which these two groups with proper support from the government are likely to do well. Not only should entrepreneurial activity on the part of the youth and women should be promoted in these areas. These economic activities will also provide increased employment to women and the young.

We have argued for the adoption of an industrial policy to provide Pakistan with an industrial base it has not developed that would exploit its many advantages. The five approaches towards industrial policy adopted over the last six decades lacked a long-term vision; they were mostly responses to the problems the policymakers thought they faced when they held the reins of power. In designing an industrial policy it would be much more efficient to shift the locus of policymaking to the provinces rather than retain it in the center. In applying this approach to the province of the Punjab, the list of “winners” the government should work on should be focused on the development of small and medium enterprises. In developing this approach the government need not create a new entity but work on the evolution of the one that has done some interesting and useful work in the last decade. The Small and Medium Enterprise Development Authority has been effective in developing some new areas but it needs to expand its activities to include analytical work aimed at selecting the winners as well as helping the winner’s access new sources of finance.

PART SIX

NON-SECTORAL STATE INTERVENTIONS

State intervention's in the promotion of the economy, quickening the pace of development, reducing poverty, imparting income distribution and sustaining all these developments has at least two aspects: development of the sectors of the economy and creating an enabling environment in which the chosen sectors can develop. While Part Five analyzed the role of the real sectors of the economy can play in realizing the province's economic potential, this part examines some of the non-sectoral aspects of development. We begin by discussing the development of the province large human resource, then examine how the rapid urbanization of the province should be exploited for its development, then discuss the role of trade and finally conclude with an analysis of tourism as a contributor of growth.

Human Resource

For a couple of centuries economists paid little heed to the importance of human development for generating economic growth. Ever since Adam Smith, economists believed that growth resulted from a combination of labor and capital. The economists' production function had only two variables – capital and labor – and when a combination of the two left a significant amount of growth unexplained, they attributed it to something Robert Solow called the "X" factor. This factor remained outside the equation; it was exogenous to the economic system. But then two economists, both Americans, revolutionized growth economics by developing endogenous models that bought human development and technology within the economic system. Robert Lucas of Chicago University focused on the importance of human capital in the production process. Paul Romer of Stanford University underscored the role played by technology in economic growth. Because of their work, production function now included more than two variables: in addition to capital and labor, the quality of the human resource and the state of technology also became variables that explained growth.

As is well recognized by the practioners of development both inside and outside the country, Pakistan has lagged behind other developing countries in developing its human resource. It is only recently that the area of human resource development has begun to receive the attention of public policy. There is a great deal of ground to be covered in providing a growing population access to basic health care and education. Punjab has done a little better than the rest of Pakistan in terms of the various indices of human development that are commonly used to measure the state of progress but even in its case, much remains to be done. Much of the improvement in the Punjab can be attributed to the role, the private sector has played in the last couple of decades.

Developing a country's human resource must cover several areas. We will emphasize three of these: basic education, development of skills, and research.

Basic education including female literacy: As shown in Table 1 below, literacy rates are low in Punjab, particularly for women and particularly in the rural areas. Dropout rates are high, surprisingly higher for boys than for girls in both urban and rural areas. There is a great deal of ground to be covered if the province aims to meet the target of universal primary education by 2015. Pakistan has committed itself to the target under Millennium Development Goals.[77] The Millennium Development Declaration was signed by the heads of states and governments in a special meeting convened in New York by the United Nations Secretary General. General Pervez Musharraf, who then went by the title of the Chief Executive, signed on behalf of Pakistan. The declaration was incorporated in the Millennium Development Goals (MDGs).[78] Eight in number, they included the commitment to reduce the incidence of poverty by one-half the level at the start of the new millennium by the year 2015. The signatories also agreed to achieve universal primary education by the same year. But MDGs apart, the province will need to improve the level of literacy if it wishes to attain economic prosperity. That will require attention and effort by both public and private sectors.

Table 1
Selected Education Indicators for Punjab and Pakistan: 2006/07

	Punjab			Overall Pakistan
Indicator	**Urban**	**Rural**	**Overall**	
Literacy Rate (% Population 10 Years and Above)				
Male	79	61	67	67
Female	68	38	48	42
Overall	73	50	58	55
Net Primary Enrolment Rate (%)				
Male	76	65	68	63
Female	76	59	64	54
Overall	76	63	66	59
Dropout Rate (% children 10-18 yrs. leaving school before completing primary level)*				
Male	13	19	17	15
Female	8	18	14	15
Overall	11	19	16	15

*These numbers are from 2001/02 PIHS.
Sources: 2001/02 PIHS. The table is derived from the source cited in Table 3 above.
2006/07 PSLM

[1] The World Bank, *Pakistan: Punjab Economic Report: Towards a Medium-Term Development Strategy*, Washington, D.C., 2005.
[78] United Nations Development Program, *The Millennium Development Goals*, New York 2002.

Education: Concentrating on developing the large human resource would mean focusing on at least three areas of public policy concerning education. These are improvements in primary and secondary education, getting literacy to reach women and providing modern skills to a large proportion of the province's youth. After years of experience with using human resource development as an important contributor to growth, practitioners of development have realized that they need to work towards not only having universal primary education but getting children to stay in school for at least eight to ten years. It is only then that children are prepared to enter institutions of higher learning or to make a contribution to the economy by entering the workforce. For many years practitioners of development focused only on primary education. That was the case in the World Bank sponsored Social Action Program (SAP) that was implemented in Pakistan in the early 1990s. While the program increased the rate of enrollment in primary schools, it had a negligible impact on improving the country's human resource, including that of the Punjab. Development thinking has now reached the conclusion that it needs much more than five years of schooling to change behavior and to prepare people for the modern sectors of the economy.

Insofar as increasing literacy among women is concerned, there is now abundant empirical evidence to indicate that there is a positive correlation between women's education and economic modernization. It has also been repeatedly observed that educating women has positive demographic consequences by lowering the overall fertility rate and thus reducing the rate of increase of population. For a conservative society such as Pakistan, efforts have to be made to ensure that there are sufficient incentives available to the parents to send their girls to school. In this area, women themselves have to play an important role. It is only when they themselves are fully convinced that their girls need to be educated that female education will become a priority for families even in the very remote areas. Mothers have to be convinced that education would improve the economic and social prospects of their daughters. It is heartening to note that a woman such as Mukhtar Mai, subject of considerable abuse at the hands of the male citizens of the village in which she lived, has concentrated so much of her attention on female education after having gone through a series of traumatic events. She received large sums of money from abroad following the publication of her story by *The New York Times* columnist Nicholas Kristof, who also contributed the preface to her biography.[79] She is committing those resources to the betterment of women

Development of modern skills. But the efforts of public policymakers must not stop at primary and secondary education and education of women. They must also focus

[79] Mukhtar Mai, Nicholas D. Kristo), Marie-Therese Cuny and Linda Coverdale (2006). *In the Name of Honor: A Memoir*, Atria.

their attention as well as public resources on improving the development of skills for a wide segment of the population. Here it would be useful to enter into various degrees of collaboration with the private sector, something that has already begun to happen. There has been a virtual explosion in the number of private institutions in the country in the past one decade. This is particularly the case in the Punjab where such schools have been started not only in towns and cities but also in the countryside. There are several reasons for the increased interest on the part of private entrepreneurs in the sector of education. The failure of the public sector to provide quality education to the people is one important reason. Since economic growth and economic modernization has increased the demand for quality education, parents are increasingly turning to the private sector to satisfy demand. The widening gap between supply and demand in good education means that there is a great deal of money to be made by investing in this sector. While there is nothing wrong in allowing profit to be made in education, there is some need for regulation. The most efficient way of doing this would be to leave regulation in the hands of the private sector. The private sector, in turn, would be required by the government to establish standards according to some scale against which institutions would be measured and their rating would be made public. This will help the parents to guide their children towards particular institutions.

There is one other need for quasi-public sector intervention in education. There should be a mechanism for providing financial assistance to the parents who don't have the means to send their children to high quality institutions. This could be done either by institutions themselves, creating a scholarship fund financed from a mandated amount of tuition revenue that must be saved for this purpose. The state could also help by providing subsidized educational loans through the banking system. The latter is being done successfully by several Latin American countries, particularly Mexico. The Mexicans were aided in this area by the World Bank.

While a public-private partnership would help to improve both the quantum as well as quality of higher education, the government must also make a serious effort to improve the quality of instruction in the institutions it manages itself. Again, the instruments that can be used by bringing this about are well known from experiences in other parts of the world. These include improvement in the quality of teachers which in turn means increasing the remuneration provided to them as well as opportunities for continuous learning and development. It also entails improving the quality of the textbooks provided to the students and improving governance in public sector institutions. Some of these things have begun to happen but it is both the quality of teachers and quality of textbooks that needs a great deal of public sector focus

Science and technology: One of the most neglected areas concerning human resource development has been the promotion of science and technology and its

use in the productive sectors of the economy. It is unfortunate that the laudable efforts that were directed towards these goals by the government preceding that of Ayub Khan and by the military administration itself were not followed up by later administrations. The institutions then set up such as the Council for Scientific and Industrial Research and Agricultural Research Council were allowed to languish. In this area as well serious public-private partnership could begin to fill the gap that now exists between the need for new technologies and scientific know how in the productive sectors and their availability.

The government's role: The government in Pakistan now plays a less significant role in developing the human resource. This is largely because of the neglect of the area in the past. Nonetheless, the sector needs government attention for there are some aspects of human development that can be tackled only by the state. They are, in the language of economics, "public goods" that must be provided by the public sector. The recognition that the state has an important role to play in human development has informed much of what the Government of Punjab has done in the province in the context of its "2020 Vision".

Urbanization

Pakistan, like most other developing countries, underestimates the size of its urban population and that of its large cities. This is partly due to political reasons since for several decades the landed aristocracy dominated the political system in Pakistan. This was one reason why the country did not conduct population censuses between 1972 and 1998. The Constitution of 1973 requires that censuses must be conducted every ten years and that the seats in the national and provincial assemblies be apportioned on their basis. Censuses were due in 1981 and 1991 but were postponed since they would have revealed a considerable shift in the location of population from the countryside to the towns and cities. Recognizing that the cities are larger and that the urban population has a number of political and economic aspirations, most of which would go against the interests of the large landlords, those who wielded political power chose to maintain the status quo. While in reality there have been significant changes in the country's demographic situation and in terms of the structure of its economy, these have not been fully accommodated in the making of public policy.

As already noted in some of the earlier parts of this study, there were two exceptions to these political approaches. The first was in the decade and half immediately after the country gained independence when the large landlords – in particular those from the Punjab – were politically sidelined because of their indifference to the idea of Pakistan. It was only in the mid-sixties when, under President Ayub Khan, the Pakistani political structure was "indigenized". This occurred with the muhajir community giving up some of the space it had occupied to the landed interests. The

other exception to the low priority assigned to the urban areas was in more recent times when some of the socio-economic groups from the urban areas gained political power. Under Nawaz Sharif, who was twice prime minister in the 1990s and his brother Shahbaz Sharif who governed Punjab as chief minister, some of the anti-urban biases in public policy were corrected. The Sharif brothers have their political and economic bases in Lahore, Pakistan's second largest city. The younger Sharif, as the Chief Minister of the Punjab, once again holds the reins of power in Lahore.

While, in more recent times, public policy has been correctly oriented by giving recognition to the relative roles of the urban and rural areas, it is not fully supported by a deep understanding of the dynamics that operate in the various parts of the urban economy. In this part of the study we will attempt to fill the knowledge gaps that exist about the social and economic characteristics of the urban communities in the province of the Punjab.

In this section we will provide an overview of urbanization the world over in order to identify the trends that are relevant for studying the phenomenon in the Punjab. We will discuss Pakistan's urbanization, with focus on the trends in Punjab, making an attempt to correct the biases that still exist in defining what is meant by the terms "city" and "urban" in the context of the Punjab. We will identify four different urban communities – large cities, areas in the periphery of the large cities and small towns. Once the different economic dynamics that operate in these parts of the urban population are noted their relevance for the making of public policy will become obvious.

Broad urban trends

There is a profound change taking place in the process of urbanization world wide. For the first time in human history, more than one-half of the word's urban population, estimated at 3.3 billion, will be living in urban areas. By 2020, this is expected to increase to 5 billion. While the world's urban population grew very rapidly – from 220 million to 2.8 billion – in the 20th century, the next few decades will see an unprecedented scale of growth in the developing world. This will be the case particularly in the more populous countries of Asia such as Pakistan. The size of the urban population will double between 2000 and 2030 in these countries. Developing regions as a whole will account for 93 per cent of this growth, Asia and Africa for over 80 per cent. As a result of these shifts, developing countries will have 80 per cent of the world's urban population in 2030.

For the last several years the growth of "mega-cities" has attracted considerable media and public policy attention. The most common definition of a mega-city is an urban area with a population of more than 10 million people. This means that Pakistan, based on the way it defines its city limits, has only one mega-city, Karachi.

But a different way of defining cities would also include Lahore in this class. These cities are not increasing in size as rapidly as was once feared. Today's mega-cities account for only 4 per cent of the world's population and 9 per cent of the total urban population in the world. "Many of the world's largest cities – Buenos Aires, Calcutta, Mexico City, Sao Paulo, and Seoul – actually have more people moving out than in, and a few are close to the size that doomsayers predicted for them in the 1970s", writes the authors of a recent United Nations report on urbanization[80]. Since the developing countries' urban population is set to increase rapidly in the first few decades of the 21st century and since the size of the large cities is not likely to increase significantly, the proportion of the urban population living in medium-sized cities and towns must increase by a significant amount. This is an important conclusion for policymakers in the developing world.

The use of space by cities and towns as they expand has always been an area of concern particularly in the countries where agriculture is an important activity and where good quality land is relatively scarce. The concern increases when the largest cities in the region are located in the areas that have fertile land. Lahore, Faisalabad, and Gujranwala, three of the Punjab's four largest cities, are situated in the areas where land is fertile and is also well served by an expensive system of irrigation built over hundreds of years. This raises an obvious question. Is the spread of cities such as Lahore and Faisalabad coming at a great economic cost?

According to the above cited report by the United Nations Population Fund, space taken up by urban localities is increasing faster than the urban population itself. "Between 2000 and 2030, the world's urban population is expected to increase by 72 per cent while the built up areas of cities of 100,000 people or more could increase by 175 per cent….[However], recent estimates based on satellite imagery, indicate that all urban sites (including green as well as built-areas) cover only 2.8 per cent of the Earth's land area".[81] That notwithstanding, average urban densities (the number of inhabitants per square kilometer of built-up area) have been declining for the last two centuries. In both developing and developed countries, the average density of cities has been decreasing quickly: at an annual rate of 1.7 per cent over the last decade in developing countries and 2.2 per cent in industrialized countries.

The other trend in the process of urbanization in the developing world concerns the spatial distribution of the poor. In the development of the areas on city peripheries at the height of the urbanization process that occurred in the 1970s, the upper and middle classes preempted space in the urban centers and expelled much of the

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[80] Most of the data in this section is from the report, *Urban Nations Population Fund, State of World Population: Unleashing the Potential of Urban Growth*, New York, 2007.

[81] *Ibid.,* p. 45.

poorer population either into the ghettos located in the areas poorly served for public services in the cities (this is the way *kutci abadis* were formed in parts of urban Pakistan) or to the slums in city-outskirts.

Urbanization in Pakistan and the Punjab

At the time of independence in 1947, Pakistan was a predominantly rural society. When the country took its first census in 1951, West Pakistan (today's Pakistan) had a population of 33.78 million, a fifth of today's size. Of this only 6.05 million (17.9 per cent) lived in what were then classified as urban areas. The proportion of population in the urban areas was even lower at the time of Pakistan's birth. The exodus of Muslims from India brought in 8 million Muslims into the country while 6 million Hindus and Muslims left in the opposite direction. This movement of people – unprecedented in human history – had several demographic consequences for Pakistan. It added two million people, or 6.3 per cent, to the country's population. This was equivalent to three years of natural growth. And it made a significant difference to the size of some of the cities[82]. Of the refugees who came to Pakistan, 1.8 million settled in the country's fifteen largest cities. About one million were accommodated in Karachi and Lahore alone[83]. Correcting for the addition to the population made by the "ethnic cleansing" that took place in Pakistan and parts of northern India in 1947-48, it would appear that in 1947 Pakistan had a population of 31.8 million of which about 16 per cent or just over 5 million lived in urban areas.

At the time of independence, Punjab (including the state of Bahawalpur which was later merged with the Punjab) had a population of 22.29 million of which 3 million (17 per cent) lived in urban areas. In terms of its share in population, the Punjab was a larger province in Pakistan than is the case now. It then had 70 per cent of the country's population. Then Lahore, with just over half a million, was Pakistan's largest city while Karachi, the country's only port, had a population of 330,000. Muhammad Ali Jinnah, Pakistan's founder, toyed with the idea of taking the capital of the new country to Lahore. It had a better infrastructure than was available in Karachi but the latter was chosen since the former was too close to the border with India. Punjab's share in population decreased when another large movement of people occurred, this time to Karachi to cater to the needs of that city for construction, industrial and office workers. Much of this work force was provided by

[82] There are still no firm figures available for the number of people who were involved in this large exchange of population. These figures are based on Shahid Javed Burki, *Pakistan under Bhutto, 1971-77*, London, Macmillan, 1980. Burki's estimates are based on his work at the Harvard University in 1967-69.

[83] Shahid Javed Burki, "Pakistan a demographic report", *Population Bulletin*, Vol. 29, No 4. Population Reference Bureau, Washington DC

the Punjab. As Karachi expanded in size, the share of Punjab in the country's population declined.

If we define large cities in the context of the late 1940s as those with populations of more than 100,000 people, those with population of between 50 and 100,000 as medium sized cities and those between 10,000 and 50,000 as towns, then at the time of Pakistan's creation its small urban population was heavily concentrated in small towns. There were only three large cities – Lahore, Rawalpindi and Gujranwala, and seven medium sized cities. The large cities had 20 per cent of the urban population, the medium sized cities another 13 per cent while the towns accounted for the remaining 67 per cent. This distribution was to change significantly over time; now, as we will discuss later, Lahore alone has a significantly larger share in the urban population.

The three large cities in the late 1940s developed in size in response to very different economic dynamics. Lahore for centuries had served as the capital of the Punjab province; it sometimes was the capital of much larger political entities than today's province. Under the Mughuls and the Sikhs, governments located in Lahore served much larger geographic areas than is the case with modern Lahore. The city had developed institutions other than those needed to run governments; from about the mid-eighteenth century, it had become the center of culture and education for the areas that it commanded. It also served as the center of commerce; the famed Grand Trunk Road that connected India's northwestern parts to those in the northeast passed through the city. When the British built India's railway system, one part of it – the Northwestern Railway, or NWR – was based in Lahore with good links to the other parts of the country.

Rawalpindi, the Punjab's second largest city at the time of independence, had grown in size principally for two reasons. It was the garrison town for the British army that had the responsibility for India's northern areas. Given the "Great Game" involving the British and the Russians under the Czars, – played over access to Central Asia – Rawalpindi had become an important garrison town. The other reason for the city's importance was the access it provided to the valley of Kashmir which for both the Mughul and British rulers of India was an important destination for escaping the heat of the Indian planes.

Gujranwala, the province's third large city, had an entirely different economic dynamics from the other two. It was the center of small industries on which the Punjab's agricultural economy was dependent. The city had developed a base of skills that was needed for the development of metallurgy and manufacturing that provided equipment to the agriculture sector. The remaining communities were essentially market towns that served the large agriculture sector of the province. Some of these were built specifically for that purpose.

The advent of the “green revolution” in the late 1960s brought another economic dynamic into Punjab’s urban areas. With new technologies introduced into agriculture and with the sector being increasingly mechanized, the countryside needed support which was provided by small urban communities – essentially small towns – located in the areas that benefited from this development. These towns developed rapidly in particular those that had the skills needed to service agriculture.

Urban Punjab Communities: Four different dynamics that govern their development

Dynamics of urban and city growth have changed in the Punjab compared to those in the decades immediately following independence. This was to be expected considering the increase in the size of the economy and a change in its structure. As we shall see from the data presented in the table below, the urban population is much more concentrated now than was the case in the earlier decades. As shown in Table 2, large cities, defined as those with populations of more than one million – there are five of these now in Punjab – account for 57 per cent of the urban population. Medium-sized cities, with populations of between 100,000 and one million, account for another 36 per cent of the total. Towns with populations ranging from 50,000 to 100,000 have the remaining 7 per cent. Perhaps another 3 million people live in the peripheries of cities and towns that continue to be identified as rural counting them in would increase the size of the urban population to over 30 million.

Table 2
The Size Distribution of Urban Population

Classes	Frequency	Size (000)	Percentage
> 5 million	1	6677	24.61
1million - 5million	4	8736	32.20
500,000 - 1million	3	1562	5.76
250,00 - 500,000	9	3169	11.68
100,000 - 250,000	33	5013	18.48
50,000 - 100,000	27	1972	7.27
Total	**77**	**27129**	**100.00**

Source: Punjab Development Statistics 2007, Bureau of Statistics, Punjab, Lahore.

High level of large city concentration in urban population is the case even on the basis of official statistics. If a different basis is used for estimating the size of large cities – estimates that incorporate the areas on the peripheries of the city which are not included in the city limits in official statistics – then cities such as Lahore, Faisalabad and Gujranwala are much larger in size. Some of the areas on the periphery are identified as towns and small cities in official statistics. By including them in the cities, their share in total urban population would increase significantly.

The heavy concentration of the urban population in large cities is mostly the consequence of economic policy choices made by the various regimes that held power since independence. The emphasis placed on industrialization is party responsible for this concentration in urban population. The first phase of industrialization occurred during the period of President Ayub Khan (1958-69) when private enterprise was allowed to set up large industrial enterprises close to city

centers. Because of that, most notably in Faisalabad, Rawalpindi and Gujrat, large industrial enterprises took up space that should have gone for the activities more attuned for city centers. In the later part of the Ayub Khan period, industrial space was developed outside the peripheries of large cities such as Lahore and Karachi. This put a different kind of pressure on urban services.

Today, it makes sense to divide the urban landscape into four parts. The first of these is made up of the cores of such large cities as Lahore, Faisalabad, Rawalpindi, Gujranwala and Multan. These cores are dominated by economic dynamics to be expected of large cities. The cores provide services to the large populations in the cities as well as the rest of the country. The nature of the services provided is determined to some extent by the economic characteristics of the city core. In large industrial cities such as Faisalabad, services are related to the large industrial sector that dominates the city's economy. The city has a number of small businesses that are linked with the textile industry. Lahore's core is much more diversified given the structure of its economy. It is connected with the numerous services the city provides not only to its citizens but to the entire province. These include education particularly at the higher level, healthcare, entertainment and culture.

The second part of the urban population is made up of those who live on the peripheries of large cities. Since Pakistan does not have strict zoning laws, the development of these areas has been unplanned even when large industries were located there. Given the absence of adequate transport connecting the peripheral area with city centers, the poor have not tended to congregate in these places. In some cities the peripheries are now home to housing estates that have been built and are under construction for accommodating the upper income classes whose number, income and wealth have grown as result of the rapid growth of the economy in the last half a dozen years.

The third part is made up of medium sized cities which have developed in part because of the province's industrialization or in response to the services needed by the sector of agriculture. There is a fairly large concentration of urban population in these cities. To cater to them and to take advantage of their contribution to the economic life of the province, it is necessary to understand their different economic characteristics. One way of illustrating this point is to compare the economies of the two cities that fall into this category – Sialkot and Sheikhupura. Both are similar in size – with about half a million people each – but have very different economic structures. Sialkot has gained international reputation in creating industrial clusters in a few industries built on the basis of its traditional skills. It has a vibrant export sector in items such as surgical goods, sports goods, and leather garments. The city's entrepreneurs have pooled their resources for building the infrastructure the state should have provided. Not only roads were constructed with private money; the city also built an airport that can carry its export goods by air to destinations around the

globe. Sheikhupura, on the other hand, has developed to accommodate industries that wished to be located near Lahore. It is in fact a satellite for Lahore.

The fourth urban population is made up of the towns scattered around the province. These towns are closely linked with the economies of the countryside that surrounds them.

Policy Recommendations

There are two dynamics involved in the way urbanization is now occurring in the developing world. Both have considerable relevance for public policy choices in the Punjab. One, the growth of the urban population involves a huge increase in the number of poor people. This means that to deal with the problem of poverty, public policy must pay particular attention to the urban areas. Two, contrary to general belief, the bulk of urban population growth is likely to be in small cities and towns. These must not be neglected by the governments in the developing world.

Given the trends in the developing world with respect to urbanization and the overall goals proposed in this study for the province of Punjab – that the provincial GDP should increase at an annual rate of 8 per cent a year, that a million and a half productive jobs should be created by the economy in the province, and that the incidence of poverty should decline by the year 2020 to less than 10 per cent of the total population – we suggests eight areas for government action.

- Poverty is highly concentrated in the urban areas, in particular in the larger cities. For its alleviation it should become the central focus of public policy. Special attention will need to be given to the development of the activities that help the poor by creating jobs for them. As indicated below, this will mean development of a comprehensive urban growth strategy that focuses on the creation of productive jobs, improvement of housing, provision of basic services to all segments of the population, better mass transport, and the establishment of institutions that can improve the level of skills of the urban population.
- There needs to be considerable importance give to the development of mass transport. Relative immobility reduces the opportunities available to the poor for productive and better-paying jobs. The provision of transport facilities will also help the poor to locate themselves in the areas where land is less expensive. Appropriate transport facilities will help the poor to move out of those *katchi ababdis*.that are not considered to be viable for long-term habitation.
- The poor need better housing and for that to happen they should be given rights over the land they occupy even in the *katchi abadis*. Land titling will also help the poor to gain access to capital. They will be able to use land as a

collateral to obtain credit from the banking system. The poor can deploy capital for improving the quality of the economic assets available to them.

- Public policy must specifically correct the bias Pakistan has in terms of favoring the development of large cities. It must be designed to help medium-sized cities and towns grow in size. The strategy proposed in this study focuses on the development of some sectors that will create jobs and hence personal incomes in the medium-sized cities and towns in the province. This is in keeping with the trends noted above in the developing world but from which Pakistan has departed. As noted, small cities and towns are growing more rapidly in terms of their share in urban population than the large cities. In the Punjab, however, the trend has been towards the growth of large cities. This trend needs to be reversed but that should be done not by forcing people into medium sized cities and towns but by designing public policies that make them economically attractive destinations for the people who would like to leave the countryside. This can be done specifically by giving attention to the establishment of labor intensive small and medium sized industries. By focusing on these activities the government would be aiding those millions who reside in these urban centers.
- One way of encouraging the growth of urban areas other than large cities is to facilitate the development of small and medium-scale enterprises. Two sectors present opportunities to the Punjab in this context: they are food processing and the production of small consumer appliances as well as the manufacture of parts and components.
- There is the need to better connect small cities and towns with the countryside. A road building program that encompasses the entire province but focuses on farm-to-market roads will help in this regard.
- For the institutions of local government to deliver services they must also have access to funds, some of which can be generated through local taxes and user charges. However, this will require a number of changes in the legal framework under which local government institutions are currently operating. It will also need changes in the way the federal and provincial governments manage their finances. All urban jurisdictions need to be given greater financial autonomy than available under the devolution plan that is at the core of the system of local government introduced after the promulgation of the Local Government Ordinance in 2001. For some of the cities, it would be appropriate to start tapping the capital markets for raising resources for development. Medium-sized cities such as Sialkot and Gujrat may be selected to launch pilot programs.
- Small cities and towns don’t serve their citizens well in terms of providing them the services they need. This may begin to change if the system of local

government launched in 2001 is allowed to evolve in such a way that its leaders become more responsive and accountable to the citizenry. An important way of bringing this about is to have (a) the Nazims and Deputy Nazims directly elected by the people and (b) by the political leadership to have the power to recruit their own personnel. Since (b) would imply a major change in management of human resources in the province, this approach may be tried initially in one or two cities on a pilot basis.

Location and trade

How should a country such as Pakistan take advantage of the enormous changes that have taken place – and are taking place – in the international trading system? And within Pakistan, how can the Punjab, the country's largest province, draw benefit from the way the structure of world trade is evolving? Both Pakistan and Punjab are relative late arrivals to the trajectory of high growth on which a number of other Asian countries have already spent some time. Could they catch up and in doing so what kind of role international trade should play? Among the themes running through this study one of the more important one is that in attempting to catch up with the rapidly growing developing countries, Pakistan and Punjab will have to follow strategies different from those pursued by the countries that are already set on the trajectory of rapid growth. And in coming up with a new approach, the country must allow greater freedom in the making of public policy to its federating units – the provinces. This is particularly the case in the area of international trade.

Since the end of the Second World War, the international trading system has evolved in a way to create many new opportunities for the developing world. The system has developed as result of a series of multilateral trade talks – called the "rounds", the most recent of which, the Doha round, was launched in 2001 – that gradually freed trade. Initially the emphasis was on easing the restriction of trade between developed countries. Although developing countries participated in these deliberations, their benefit was confined to the grant of preferential treatment. It was agreed, in keeping with the theory of the times, that the "infant" industries of the developing world needed some protection from the industries in the more developed parts of the world. Therefore, while the developing world could take advantage of the lowering of the walls of tariff in rich countries they were not required to reduce the tariffs they maintained in their own trading systems. In return for this concession, the developing world agreed to accept some restrictions on the export of some agricultural products and textile goods to the developed markets. These restrictions were a mixed blessing for a country such as Pakistan.

Pakistan, one of the largest exporters of textile products in the developing world, lived under a constraint on its exports of these products. A system of quotas was adopted that restricted by product category the exports of textiles. The Mulitfiber

Arrangement under which these quotas were operated was put in place in 1974 and was to be operative for 30 years. They ended on January 1, 2004. There was the belief that after the end of the MFA quotas, countries such as Pakistan which grew most of the cotton they used in their textile industries and which had a fairly mature textile sector would benefit. It was in this belief that the private sector, encouraged by the government, made massive investments in the modernization of the textile sector. A significant part of this investment was made in the Punjab. But the expected gains did not materialize. This was in part because Pakistan faced significant tariffs in the United States and in the European Union while a number of poor countries – including Bangladesh – were allowed duty-free access to the markets of the rich countries. The industry also suffered as a result of the lack of adjustment to the value of rupee. The rupee retained its value with respect to the US dollar although the rate of inflation in Pakistan was more than three times that of the United States. Pakistan lost the competitive edge it had in textile products to a number of countries, including China and India. By the summer of 2008 the textile industry of Punjab was in a deep crisis.

The Doha round of trade negotiations was called the “development round” since it promised to yield more benefits to the developing world than had happened in the previous rounds. These benefits were to come in particular from the adjustments in tariffs and subsidies in the developed world. European Union, Japan, and the United States had operated complicated subsidy and price support schemes to help their farmers face international competition, although the shares of agriculture in the gross domestic products and in employment were insignificant. Following a number of “crises meetings” in late 2006, a couple of times in 2007 and in July 2008, the Doha round got stalled. While the developed countries were prepared to make some concessions in reducing agricultural subsidies to their farmers, they demanded a lowering of tariffs in the more developed parts of the developing world. This was not acceptable to countries such as Brazil, China, India and South Africa who were allowed to negotiate on behalf of the developing world.

Because of the perceived cost of globalization in general and trading arrangements in particular there is less enthusiasm for free trade in the United States than was the case for several decades. This will affect the further evolution of the world trading system. For instance, John J. Sweeney, president of the AQFL-CIO the largest union of workers in the United States, his country has lost “3 million good, middle class jobs since 2000”.

While straight forward protection of domestic industry is no longer possible, those who oppose free trade are forcing the American Congress to opt for worker and environment protection that would increase the cost of producing these goods in the developing world. Trade union leaders want trade pacts to include the International Labor Organization’s 1998 Declaration of the Fundamental Principles and Rights of

work which calls for the freedom of association, the right to bargain collectively, a ban on forced labor and child labor, and no employment discrimination. There is little the developing world can do to prevent the United States from adopting these quasi-protectionist measures. It appears, therefore, that the international trading system will not be more open.

Given its own situation, this stance by the developing world in the dialogue on trade does not suit Pakistan, a country that would have benefited from freer trade in agriculture and also from the lowering of tariffs by the large developing countries. Pakistan would also benefit from the lowering of tariffs by India. India also constrains imports by the use of a number of devices available under the current multilateral trading system. It is able to use the dumping clause – the provision that exporters must not price their products below the cost for making them in order to gain access to particular markets – to keep a large number of imports from entering its market. A more liberal Indian trading regime would be great benefit for Pakistan. Had there been greater participation of the provinces in the design of trade policy, Pakistan could have taken a different position in the Doha round than it did in 2006-07. This is one more reason why the provinces in the Pakistani federation have to be involved in making of trade policy, notwithstanding the constitutional provision that this is a federal subject.

Up until now, formal trade has played a relatively small part in developing Punjab's economy. The structure of trade as well as the structure of the economy will change quite dramatically if the country's economy is opened to India. Punjab sits on top of the rapidly growing Indian. It could also serve as an area of transit for India's exports and imports. Wider trade and other exchanges with India could become important contributors to Punjab's growth and modernization but their development would depend largely on what happens between Islamabad and New Delhi. The government of Punjab can only encourage movement in this area. It cannot, for obvious reasons, occupy the driver's seat. However once tensions between India and Pakistan ease and this easing is translated into greater flow of goods and movement of people between the two countries, Punjab must invest heavily in the development of the province's physical infrastructure. Some investments have already been made, such as the construction of a modern airport at Lahore. This airport as well as the motorway network that is being developed would produce enormous benefits for the provincial economy if trade becomes an important form of linkage between India and Pakistan.

In a study done for the USAID, my co-author and I estimated that if the potential of regional trade is realized, Pakistan's total trade in real dollars (2004/05 dollars) could increase from the present $33.5 billion to $90 billion over the ten year period between 2004/05 and 2014/15. "With the economy more open and with trade with India allowed free of the positive test of permitted exports and imports, India-

Pakistan trade is likely to increase tenfold, from the current $2 billion (including informal trade) to $20 billion. In other words, of the $58 billion increase in total trade projected, $18 billion – or almost 31 per cent of the increase – could come from increased exports to imports from India."[84]

We believe that Punjab's economy is more compatible with that of India; it has more to offer to the Indian market than other parts of Pakistan. Of the $18 billion increase in trade with India projected in Table 13.4 as much as 80 per cent could originate in Punjab. This will significantly increase the trade-to-provincial-GDP ratio to close to 60 per cent. Punjab will become a much more trading economy than it is at this time.

Table 3
Projected Value of Pakistan's Formal and Informal Trade in 2005/15
($ billion)

Type	2004/05				2014/15			
	Exports	Imports	Total	% of GDP	Exports	Imports	Total	% of GDP
Formal	14	18.0	32.0		43.0	47.0	90.0	
Informal	0.5	1.0	1.5		--	--		
Total	**14.5**	**19.0**	**33.5**	**30**	**43.0**	**47.0**	**90.0**	**42.0**

Source: Author's projections in Shahid Javed Burki and Mohammed Akbar, "Pakistan" in USAID, *South Asia Free Trade Area: Opportunities and Challenges*, Washington, D.C., 2005.

The most significant contribution the government could make to the realization of rapid growth scenario is by reaching an understanding with India and opening the economy of the Punjab to trade, investment and tourism from India in return for similar opening by the Indians. If that were to happen, we will see a major restructuring of the provincial economy, with entirely different agricultural, manufacturing and service sectors taking the lead. In some respects Punjab would return to the trajectory it would have followed had the trauma of partition not created so many economic and social difficulties for the province. In this picture the province's large agricultural sector would be transformed from the one that producers mostly cash crops such as cotton, wheat and rice, to higher value added crops such as fruits, flowers, edible-oil bearing crops, vegetables, and house plants. There will also be much greater focus on animal husbandry with emphasis on producing products of consumption for both domestic consumption and export. Since the market now demands relatively sophisticated products, farmers will need to respond by improving the quality of animals being bred. These developments would increase labor productivity and help to generate a much larger exportable

[26] I developed this argument in some length in my book, *Pakistan Under Bhutto, 1971-77*, *Op.Cit.*

surplus from the agriculture sector. It will also bring about a significant change in the sector of manufacturing that uses agricultural inputs, in particular we can hope to see a major growth in the production of agricultural processed goods for export to the rapidly expanding Indian markets.

With trade with India bringing in capital equipment as well as some of the minerals that Pakistan imports from distant lands, the structure of the manufacturing sector will also change. In this picture Punjab will become a major supplier of engineering products to the large scale Indian industry. Some of the cities in the provinces, such as Gujranwala, Gujrat and Sialkot, that have already become centers of small scale industry, will flourish further and become major exporters of engineering inputs for the Indian industry.

Design of national trade policy: The 1973 constitution allocates the subject of trade to the federal government. One consequence of this is that while surpluses for trade are produced by the provinces, they do not have a role in the design of trade policies. The provinces have not been invited to provide their input when major decisions were taken affecting international trade. This needs to change. Pakistan is unique in terms of its geography. Each of its six administrative areas – the four provinces and the federally administered tribal areas, the FATA – has an international border. In addition to having a coastline, Sindh borders with India; Balochistan also has a coastline with borders on Iran and Afghanistan; both the NWFP and the FATA are landlocked with borders on Afghanistan and, in the case of the FATA, also with China; Azad Kashmir is also landlocked but has borders with the Indian controlled Kashmir and China; finally the Punjab, again with no access to the sea, has borders with India and the Indian held Kashmir. Given the geographical situation of the federating units they can have productive relations with the countries on their borders. If they were allowed to cultivate their trading relations with the countries on their borders, the pattern of their growth and the structure of their economies would be profoundly affected. With opening allowed to India, the Pakistani Punjab would see its economy developing strong linkages with its neighbor. It could serve as an outlet for India to the Middle East, Afghanistan, Central Asia and China. Transit trade would become an important part of the Punjab economy as would tourism since the Punjab has many religious sites that are attractive for both the Hindu and Sikh communities in India.

Tourism's Potential for Economic Growth

As a result of what economists sometimes refer to as "post industrialization," the structure of the global economy has changed profoundly over the last couple of decades. The shares of manufacturing and agriculture have declined significantly while that of the service sector has increased. In several developed economies, services now contribute up to 80 percent of the gross domestic product. Within

services, some of the fastest growing areas include those that cater to the demographic change occurring in developed countries. The population in these countries is rapidly aging as the rates of fertility decline and advances in health care increases life expectancy. The demands placed on the economy by older people are different from those of the young.

Tourism is one area that has grown enormously as a result of the older citizens' wish to travel and see the world. As shown in Table 4 below, the number of tourists worldwide has increased by 35 percent in the nine year period between 1996 and 2005. In only two of the previous nine years the rate of growth in tourism did not increase. There was a slight decline in 2001 and 2003 because of security concerns related to the 9/11 incident. Once these concerns were eased, the rate of increase in the number of tourists travelling across the borders of their countries picked up again.

The amount of revenues related to tourism has also increased significantly at a rate higher than the increase in the number of people classified as tourists. In 1996, revenues from tourism were estimated at $438 billion globally; they increased by 42 percent to $623 billion in 2005. Revenue generated by each tourist increased from $730 to $813 in the 1999-2004 period. Given this change in the structure of global demand raises an important question: whether Pakistan, like so many other developing countries, can also benefit from this change in the structure of global demand? The destination of foreign tourists now includes many in the developing world. China, India, several countries in East Asia – even the countries in the volatile Middle East – have benefited from this development. Could Pakistan join this league of nations or is Pakistan now regarded too risky a place for the western tourists to contemplate seeing many of its attractive sites? Before answering these questions let us see what is actually happening in Pakistan with respect to tourism.

Table 4
Pakistan and World Tourism 1996-2005

Year	Pakistan				World			
	Arrivals (000)	Percentage Change Over Previous Year	Receipts (Million US $)	Percentage Change Over Previous Year	Arrivals (million)	Percentage Change Over Previous Year	Receipts (Million US $)	Percentage Change Over Previous Year
1996	368.7	(-) 2.6	145.9	27.9	599.6	5.47	437.6	7.7
1997	374.8	(-) 1.7	116.9	(-) 19.9	619.6	3.34	438.2	0.1
1998	428.8	14.4	97.9	(-) 16.3	626.5	2.5	443	1
1999	432.2	0.8	76.4	(-) 22	650.5	3.8	456.3	2.9
2000	556.7	28.8	84.4	10.5	689	5.9	496	8.7
2001	499.7	(-) 10.2	92.2	9.2	688	(-) 0.1	482	(-) 2.8
2002	498.1	(-) 0.3	105.4	14.4	709	3	482	--

2003	500.9	0.6	135.6	28.6	697	(-) 1.7	524	8.7
2004	648	29.4	185.6	36.9	766	9.9	623	18.9
2005	798.3	23.2	185.3	(-) 0.2	808	5.5	N.A	N.A
Source: Annexure-IV from *Year Book 2005-2006,* Ministry of Tourism, Economic Analysis Wing, Government of Pakistan.								

The number of tourists arriving in Pakistan more than doubled in the 1996-2005 period, increasing from 369,000 to 998,000. The sharp increase in 2004 and 2005 period was the result of the influx of tourists from India, a trend that has not continued. While the number of people coming to Pakistan has increased significantly it has not translated into a corresponding growth in foreign exchange receipts. Earnings from this activity increased from $146 million in 1996 to $185 million in 2005. Earning per tourist in 2005 was only $231 equal to less than one-third of the global average. Of the four provinces in the country, Punjab has been the most active in developing tourism. Pakistan today is a small player in global tourism.

The number of tourists travelling the country in 2005 was less than one percent of the world total. Pakistan's earning from tourism was only 0.03 percent of the global average. These proportions are less than Pakistan's share in global population (2.75 percent) or in global output (0.4 percent). The share of revenues and number of tourists travelling is much greater for the countries of East Asia, China and India. It is obvious from these numbers that Pakistan is not fully realizing its potential. This could change if a different approach to the development of tourism were to be developed that first builds on developing an interest on the part of the citizenry to travel for pleasure within the country before attracting people from the world outside. Such an approach is better done by the provinces and by the districts in the provinces. In other words what is require is the local touch.

The sector has received some attention from the provincial government in Punjab since the creation of the Tourism Development Corporation of Punjab (TDCP) in 1987, an autonomous body set up under the Company's Law. The TDCP meets all current expenditures from the revenues it generates while relying on the provincial public sector development programme for initiating new projects and programmes. In view of the troubled security situation in the country, the corporation is focusing on the development of domestic tourism. According to the Managing Director of TDCP interviewed for this article, the development work done by the provincial government over the last several years has considerably improved the infrastructure needed for the promotion of tourism.[85] There has been a significant improvement in the network of roads, railways have improved their operations and begun to attract additional passengers, the standard of inter-city bus transport has improved and the private

[85] Interview with Mr. Irfan Ali, Managing Director of the Tourism Development Corporation of Punjab on January 22, 2008 in his Lahore office.

sector is engaged in building hotels and resorts. The corporation itself is making investments in resort development.

The TDCP strategy is to focus on the development of new sites which will not only open the areas in the country unexplored by tourists. It will also help to lesson the pressure in places such as Murree, Nathiagalli, and Bhurban that have reached their absorptive capacity. Several places in the southern part of the Punjab are the focus of the corporation's attention. Cholistan desert and the city of Bahawalpur, the main urban area in the desert, are being developed as tourist sites. The corporation has launched the Cholistan Desert Jeep Rally which has begun to attract a large number of visitors from all parts of the country. Its popularity is likely to result in its designation as an international rally in 2010.

The corporation is also focusing on the conservation of historical sites in some of the major cities in the province, in particular in Lahore, Multan and Bahawalpur. In Lahore the corporation is engaged in many activities including identifying what it calls "hidden sites". These will be of considerable interest particularly to domestic tourists if they are made aware of their historical and cultural significance.

Pakistan – and within Pakistan, Punjab – could draw a lesson from the experience of China in developing tourism. In the 1980s, the Chinese government began to promote domestic tourism. This was done by clustering holidays in certain periods which gave time to the people to travel. Once that was done, the government began to promote tourism among the members of the large Chinese diasporas spread across the globe. To accommodate this group, the government made large investments in developing the historical and traditional sites with which the diasporas were familiar. The third stage was to open parts of the country to foreign tourists. As their number increased, travel to new areas was allowed. This multi-stage strategy was successful in making tourism a large foreign exchange earner for the country. Various provinces in Pakistan could follow a similar strategy.

That the Pakistanis from its various diasporas are important in tourism is indicated by Table 5 below. The table shows that 692,000 tourists arrived in Pakistan in 2006 from the ten largest points of origin. In this the largest shares were from the United States (31 percent) and the United Kingdom (14 percent). These two countries have two of the three largest Pakistani diasporas. That Norway also figures amongst the ten largest origins of tourism is because of the fact that this country, albeit small in terms of population, also has a large Pakistani diaspora. There is in other words considerable potential for developing tourism in Pakistan's various Provinces in spite of the perception that it is not a secure place for visitors. That perception may change as more and more people get acquainted with the country.

Table 5
Top Ten Tourist Generating Markets (2006)

Countries	Arrivals (000 Nos)	Percentage Share	Position 2005	Position 2006
U.K	275.1	30.6	1st	1st
U.S.A	126.2	14.0	2nd	2nd
Afghanistan	85.0	9.5	3rd	3rd
India	70.2	7.8	4th	4th
China	37.1	4.1	5th	5th
Canada	30.8	3.4	6th	6th
Germany	27.3	3.0	7th	7th
Japan	14.4	1.6	8th	8th
Norway	13.8	1.5	9th	9th
France	11.8	1.3	11th	10th
Total:	**691.7**	**77.0**		

Source: *Tourism Facts And Figures 2006-07*, Ministry of Tourism, Economic Analysis Wing, Government of Pakistan.

PART SEVEN

ENERGY AS A DEVELOPMENT CONSTRAINT

This part will provide an overview of the development of the sector of energy in Pakistan, its current situation and public policy choices for the future. Since not much separate information is available for the Punjab, we will use Pakistan as the base is of analysis. Energy will be defined broadly to include not only electric power but also various fuels used for household, commercial and industrial consumption. The study will reach one important conclusion about the development of the energy sector: a finding important for formulating an energy policy for the future. It will suggest that Pakistan's policymakers have not placed energy at the center of their thinking about economic development. They treated it as a bye product of their economic policies. The various parts of the sector were developed not in response to a strategy (or strategies) adopted by the state at various points in the country's history. The sector was shaped by the state's response to a series of crises the country has faced over time. This approach has to change in favor of a well thought out strategy that aims to achieve multiple objectives: remove an important constraint on the development of the economy, promote the development of the sectors of the economy that could become the engines of growth, ease the fiscal burden on the economy produced by the subsidies on the consumption of various energy products, contribute to the reduction in the incidence of poverty and of the widening inter-provincial income gaps, and protect the economy from the changes in international prices.

This is a good time to develop a comprehensive and integrated energy policy. Comprehensive in the sense that it covers all aspects of energy and integrated that it brings together issues such as different sources for generation and their effective efficiency, most economic ways for transmission, the most effective way for distribution. Once again in 2008, the country faces a serious crisis when the demand for energy, in particular for electricity and natural gas, has outstripped by a wide margin its supply. This has happened before but not for a combination of important sources of energy supply and not at a time when a deep structural change is taking place in the global energy markets. In other words, Pakistan's policymakers must address the problem they face by factoring in the developments in international markets that are particularly unfavorable for the country. The strategy the policymakers should work on should encompass not only supply and the structure of supply, but also its demand and the structure of demand, linkages with the international markets, and possible sources of supply from across the borders.

This part of the study will be divided into ten sections as enumerated below:

- A quick overview of the approaches towards development of the energy sector, broadly defined, over the last six decades. It will briefly take a look at

the various crises the country has had to deal with in the past in terms of covering the gaps that developed between demand and supply. These affected various energy sector products: natural gas and electric power.

- Identify the main endowments of the country and the province that could be used to develop the sector of energy. These were poorly developed by the policymakers. They were used in an opportunistic way, exploited only when they became readily available and not developed according to a specific strategy.
- Describe the structure of the sector at this time. The, structures both on the supply and demand sides, have not been developed in an optimum way.
- Describe the institutional underpinning of the sector at this time. In recent years, partly because of the pressure exerted on the policymakers by the multilateral donor agencies, there has been a proliferation of institutions in the sector that has made it even more difficult to undertake strategic planning.
- Provide an overview of the pricing policy adopted by the government at various times in the country's history. The state has determined the prices charged from the consumers for most energy products, often providing subsidies when some of the items were imported. This approach not only influenced the pattern of consumption, it also had a significant impact on the fiscal situation. The sharp increase in the price of oil in most of 2008 placed an enormous burden on the budget as the new political leaders of the country began to address the serious problem posed by a growing fiscal deficit.
- Provide an overview of the situation at this time (the fall of 2008) as the country attempts to deal with a serious shortage of electricity generation capacity that is causing load shedding in all parts of the country. There is also a serious shortage of natural gas. The policymakers must also come to terms with what many analysts believe is a paradigm shift in the price of oil.
- Analyze the external environment for the energy sector which must be kept in view as Islamabad's policymakers begin to address the latest energy crisis.
- Identify the public policy choices available to the policymakers as they undertake the important task for developing an energy policy parameters.
- Provide some ideas about policy choices for the province of the Punjab in the broader context of the energy situation in Pakistan.
- Provide some ideas about the shape of the sector in the year 2020 if the right public policy choices are made.

Development of the energy sector: A historical overview

The policymakers for about half a century, from 1947 to the mid-nineties, did not focus on the development of the sector of energy[86]. They did not appreciate that an underdeveloped energy sector could seriously constrain economic development and keep the incidence of poverty at a high level. They turned to the development of the energy sector mostly when there was a crisis relating to energy supply. The exception was in the 1990s when Islamabad adopted a policy to invite private capital into the electric power sector. As will be discussed later, even this change in policy was not without a number of serious hiccoughs.

There were several crises in the past sixty years; each of which drew a different national policy reform. The consequence of this approach is that the energy sector – in particular the sector of electric power – developed in an ad hoc way. It makes less than efficient use of the available sources of energy. The pattern of consumption has been highly distorted by the government's price and fiscal policies. The crisis the country currently faces is largely the result of the absence of strategic attention to the development of the sector.

The first crisis occurred a couple of years after the country gained independence when India, not happy with Pakistan's decision not to devalue its currency with respect to the US dollar as New Delhi had done, cut off all trade with its neighbor, including the flow of electric power that provided Lahore, the country's second largest city, with most of the power that it needed. The disruption of trade with India also stopped the flow of coal to Pakistan, the fuel which powered all the small electric generation stations that operated in the country. This incident alerted Pakistan's government to the need to have its own supply of power.[87]

The second crisis also concerned Pakistan's relations with India. The way the line of partition was drawn between the two Punjabs – the Indian state of Punjab and the Pakistani province that had the same name – placed some of the more important canal head works on the Indian side. In the early 1950s, New Delhi declared its intention to use the water in Punjab's eastern rivers for irrigation in its own area. That would have meant stopping the flow of water into Pakistan's Punjab. Pakistan threatened war if India carried out its plans. The dispute led to the establishment of the Water and Power Development Authority, the WAPDA, which was charged with

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[86] I first developed this theme in a paper that will appear in a book to be published this fall. See Shahid Javed Burki, "The Weight of History: Pakistan's Energy Problem", in Robert Hathaway, Bhumika Muchhala and Micael Kugelman (editors), *Fueling the Future: Meeting Pakistan's Energy Needs in the 21st Century,* Karachi: Oxford University Press, forthcoming in 2008. This book is an expanded version of a publication by the Woodrow Wilson International Center of Scholars under the same title. It was initially published in March 2007.

[87] How the 1949 decision by India to sever trade with Pakistan is discussed in Shahid Javed Burki, *Pakistan: A Nation in the Making,* Bouldon, Colo.: Westview Press, 1985.

developing Pakistan's large hydroelectric potential and also make the country self-sufficient in power. The WAPDA was to become the most important development organization in the country.

The next major development in the area of energy occurred in the early-fifties when Pakistan discovered a very large gas field at Sui in the province of Balochistan. However, it had to wait until the arrival of the development minded administration headed by General Ayub Khan before large investments were made to transport Sui gas from Balochistan first to supply what was by then a large industrial sector in and around Karachi and later to the northern areas of the country. Although the Punjab was lower in the list of priorities for selecting the end points of distribution, it did get connected to the gas fields with the help of an extensive "northern gas pipeline." It was unfortunate that Balochistan was not a high priority area for the pipeline network that was built to transport Sui gas to the various areas of consumption. That fact combined with the fact that various National Finance Commission awards did not provide royalties to the province for extracting its gas and for using it beyond its borders contributed to the alienation of the provincial leadership from Islamabad. Pakistan continues to face this problem to this day.

In the 'sixties, the high rate of growth in GDP created the first of several demand-supply gaps in the energy sector. The response to this came in the form of the first large scale development of the hydroelectric potential. Pakistan fought hard with the donor community to include power development in the "Indus water replacement works" that were being built in Pakistan under the Indus Water Treaty signed in 1960 between India and Pakistan. Two large power stations were built in the 'sixties and the early 'seventies at Mangla and at Tarbela, the sites of the dams on the Jhelum River and the Indus River.[88] The construction of these two power stations brought about the second major change in the structure of the energy sector (after the development of the Sui fields) by significantly increasing the share of hydroelectricity in electric power generation.

The next major crisis occurred after Pakistan had another spell of high rate of economic growth, this time in the 'eighties. The response to this crisis was to allow private capital to enter the power generation sector. Once again the result was a major structural change in the energy sector when imported fuel became the major source of electricity generation. The decision to rely on imported oil rather than to use domestically available sources for generation may have shortened the response time to meet the situation created by the development of power shortages. However,

[88] For a detailed account of the developments leading to the signing of the Indus Water Treaty in 1960 and the development works undertaken in Pakistan under the treaty see Aloys A. Michel, *The Indus River: A Study of the Effects of Partition,* New Heaven, Conn.: Yale University Press, 1967.

it was to have significant negative consequences for the country that will be discussed below.

The country is now faced with another crisis. The response to it will – and should – once again structurally transform the energy sector.

Country's endowments for developing energy supply

That the country has a river system that brings water from the mountains in the northeast and is a potential source for generating electricity was recognized by engineers even before Pakistan gained independence. However, during the time of the British, the only investment made by the state in exploiting the potential of the Indus river system was to use the canal head works located in what was to become the Indian state of Punjab for generating electric power. In fact it was the hydroelectric station at Nandipur that supplied power to the Pakistani Punjab after the British left the subcontinent and India and Pakistan became independent states.

As already indicated Pakistan turned to water as a resource during a period of crisis. The 1949 trade war with India delivered a nasty jolt to the Pakistani economy and pushed the country towards developing an economy that was independent of India. One of the many responses to this development by the policymakers in Pakistan was the building of the Warsak dam on the Kabul River in the Northwest Frontier Province.

The next large scale exploitation of hydroelectric resources was in the 1960s. This happened because of the opportunity offered by the Indus Water Treaty with India in 1960. The massive works that were undertaken as a result of the treaty included large dams on the Jhelum and the Indus. These dams not only fed the "link canals" that connected the various rivers the treaty allocated to Pakistan but also generated large amounts of electricity. The construction of these dams produced another significant structural shift in the source of power, from coal to hydroelectricity.

As noted above the second major natural resource for generating electricity was discovered in 1952 when large gas fields were found at Sui in Balochistan. However, initially natural gas was not used for generating electricity. A vast network of pipelines was built to supply it to industry (mostly fertilizers and cement) and domestic consumers. It was only in the 1990s when the private sector was allowed into the electricity sector that gas came to be used as a fuel for generating power.

There was a very limited use of coal for generating electricity even though, at the time of its birth in 1947, coal was the only source for the small amount of electric power that was then generated. The government claims that Pakistan has one of the largest coal reserves in the world. These are located in the provinces of Sindh and

Balochistan. Some attempts have been made to use them for generating electricity but the plans – some times involving the foreign investors – have not proceeded very far.

Table 1 Sources of electric power, 2007 (%)		
	World	**Pakistan**
Coal	39	1
Gas	20	44
Hydel	16	32
Nuclear	16	3
Oil	7	20
Other	2	-
Total	100	100
Source: AES, Washington. The firm operates two plants in Pakistan.		

Nuclear energy began to be developed in the sixties but did not make much progress especially when the country began work on developing nuclear weapons. This started in the early 1970s and led first to the reluctance of the countries that possessed nuclear technology to assist Pakistan and then, following the testing of nuclear bombs in May 1998, to the imposition of sanctions by the West. Table 1 provides data on the share of various fuels for generating power. As the table shows, the sources of power generation are very different from those for the rest of the world. The world relies very heavily on coal; Pakistan on the other hand, has a much greater dependence on gas. Given the availability of fast flowing rivers that rapidly descend from the high mountains in the country's north and east, it is not surprising that the share of hydroelectricity is twice the share for the world, 32 percent as against 16 percent. It is the very high proportion of oil – most of which is imported – that is causing enormous balance of payments difficulties for the country at this time with the price of oil having increased to unprecedented and unanticipated levels.

Structure of the Energy Sector

The country has a well developed energy infrastructure. Gas pipelines connect 4.26 million households, commercial establishments, industrial enterprises and power stations. The network, managed by two publicly owned enterprises, the Southern and Northern Sui Gas Companies, consists of 9060 km of high pressure transmission pipeline and over 225,000 HP of compression capacity. The power transmission and distribution network serves 18.7 million residential and commercial and 0.23 million industrial customers and includes 40,500 km of high voltage transmission lines. "In addition a network of oil pipelines transports crude oil and products to inland refineries and market centers, and the ports at Karachi are well equipped to handle import of crude oil and petroleum products that account for a major fraction of the country's demand and limited amounts of coal imported into the country."[89]

[89] Mukhtar Ahmad, "Meeting Pakistan's Energy Needs" in Robert M. Hathaway, Bhumika Muchhala and Michael Kugelman, *Fueling the Future: Meeting Pakistan's Energy Needs in the 21st Century*, Karachi: Oxford University Press, forthcoming.

Table 2 Energy consumption by source			
	1996-97	**2006-07**	**Change (percentage points)**
Gas	29	41	+12
Oil	48	29	-19
Electricity	15	18	+3
Coal	6	10	+4
LPG	1	2	+1
Renewable	0	0	+0
Source: Pakistan Economic Survey 2007-08.			

There was a significant change in the energy consumption mix over the last decade and a half in part because of a profound change in the public policy stance in the 1990s. At that time, the government, recognizing that it did not have the resources to invest in generating electricity to meet increasing demand, allowed the private sector to invest in electric power generation. Not only were independent power producers (the IPPs) allowed to enter the sector, they were also permitted to use natural gas as a fuel. This contributed to the increase in the share of gas in energy consumption. The share of oil declined by 19 percentage points while that of natural gas increased by 12 percentage points (Table 2). According to the government, "this drastic change in energy consumption mix is partly attributed to increasing oil prices and partly to exploration of gas and oil." The consumption of petroleum products increased at an average rate of 1.2 percent per annum while the consumption of gas, electricity and coal increased by 7.6 percent, 5.5 percent and 9.2 percent per annum respectively".[90] The share of coal has increased by 4 percentage points, not a significant change given the large domestic resources that are available. Liquified petroleum gas (LPG) share has doubled. This is a significant development since the tiny state of Qatar is a large producer of LPG and is a short distance by sea from Karachi. Pakistan has constructed a large gas liquifiction plant near Karachi to exploit imported gas for the purpose of power generation.

Table 3 Final energy consumption			
Sector	**Share (%)**		**Change (percentage points)**
	1999	**2005**	
Industry	34	41	+7
Transport	35	31	- 4
Domestic	23	21	- 2
Commercial	6	3	- 3
Agriculture	3	2	- 1
Government	-	2	+2
Total[1]	101	100	
[1]Total consumption 32 million tons oil equivalent. **Source:** Government of Pakistan, *Pakistan Energy Yearbook 2005* and *Pakistan Energy Yearbook 2007.*			

Government's fiscal and price policies have had a significant impact on the consumption of energy in its various forms. As shown in Table 3, industry accounts for the largest share in consumption, followed by transport. It is interesting to note that the sectors of commerce and agriculture have a very low share in consumption indicating their relative backwardness in the economic structure. There was a significant change in sectoral energy

[90] Government of Pakistan, *Pakistan Economic Survey, 2007-08*, Islamabad, p 240.

consumption over the last few years. Between 1999 and 2005, there was a 7 percentage increase in the share of industry which was at the cost of the sector of transport and households. The share of the transport sector dropped by 4 percentage points while that of the household sector declined by 2 percentage points. If provincial consumption data were available, they would perhaps show a larger share for agriculture in the Punjab since the province runs some of the tubewells on electricity.

There was a shift in the pattern of electricity consumption with a slight increase in the shares of households, industry and commercial enterprises and declines in the share of agriculture and street lighting (see Table 4). The sharpest decline took place in the share of agriculture.

Table 4
Share of consumption of electricity by end users

	1997-98 (%)	2007-08 (%)	Change (percentage points)
Domestic	42.2	45.3	+3.1
Industry	27.6	29.3	+1.7
Agriculture	15.5	11.7	-3.8
Government	8.7	7.0	-1.0
Commerce	5.2	6.1	+0.9
Street Light	0.9	0.5	-0.4
	100.1	99.9	

Source: to be added

It is useful to indicate in some detail the make up of the sector of electricity. Below is ad description of the various components of the sector.

Generation: The system's current generation capacity is 19,681 MW with WAPDA accounting for 57 percent (11, 278 MW) of the total. The Authority now has two operating components, one responsible for generating power from thermal fuels (4,834 MW) and the other producing power from water (6,155 MW). The thermal unit is further subdivided into 4 units: GENCO-1 is the large plant at Jamshoro (1024 MW); GENCO-2, located in central Punjab, generates 1,225 MW; while GECO-3 generates 1,915 MW in the country's northern part. GENCO-4 is a small coal-fired plant at Lakhra. In addition to the WAPDA's thermal capacity, KESC generates 1756 MW from four plants in and around Karachi.

Hydropower provides 6,444 MW of power with 98 percent of the capacity located in WAPDA's five plants: Tarbela generates 3,478 MW; Ghazi Baroda 1,450 MW; Mangla 1,000 MW, Warsak 243 MW and Chasma 184 MW. The remaining 2 percent come from nine plants, some of them privately owned, with capacity ranging from 1 MW to 20 MW.

Table 5
Relative shares of service area companies

Company	Customer (000)	%	Units sold GSP	%	Units per customer GWh
IESCO	1774	9.4	7065	9.8	4.0
GEPCO	2176	11.5	6110	8.5	2.8

LESCO	2795	14.8	13947	19.4	5.0
MEPCO	3370	17.8	9571	13.3	2.8
HESCO	1410	7.5	4843	6.7	3.4
QESCO	442	2.3	3965	5.5	9.0
FESCO	2449	12.9	8600	12.0	3.5
PESCO	2570	13.6	8460	11.8	3.3
KESC	1933	10.2	9367	13.0	4.8
	18919	100.0	71928	110.0	3.8

The power generated by this system increased 22 percent over a three year period from 80600 GWh in 2004 to 98,200 GWh in 2007.

Two nuclear plants, one near, Karachi (the KANUP) and the other at Chasma, were built by and are managed by the Pakistan Atomic Energy Commission. The PAEC has plans to expand the capacity at Chasma, the larger of the two plants, with Chinese assistance. Chasma II – the second of the two plants to be built by China – is under construction. The Musharraf government announced plans to add another half dozen Chinese built nuclear power plants but this program has not be formally confirmed by the Chinese authorities.

Transmission: As is the case with the system of distribution (see below), transmission of electric power was also centralized with the responsibility for maintaining and building it assigned to WAPDA. However under the 1992 reform plan aimed at reducing the size of WAPDA and improving its efficiency, transmission was assigned to a new public sector entity, the National Transmission and Dispatch Company. The NTDC was given the responsibility for operating the 200-KV and 500-KV network. The high voltage transmission network now managed by the NTDC is an integrated country-wide system which serves all the major population centers. It does not, however, extend to many sparsely populated regions in the provinces of Sindh and Balochistan. The system also does not cover Azad Jammu and Kashmir, the part of the state controlled by Pakistan. Cross border interconnections exist at lower voltage levels with Iran. A 132 KV line and two short 20 KV lines connect the western part of Balochistan with the eastern section of the province of Sistan in Iran. The low voltage line that brought power to Pakistan from India in 1947 has not been maintained.

Table 6
Distribution Losses, 2006-07

Company	2002-03 %	2006-07 %	Change	Electric lost in distribution GWh	% of Total
IESCO	11.0	8.9	-1.1	690	4.9
FESCO	11.2	9.7	-1.5	920	6.5

GEPCO	13.0	10.3	-2.7	703	4.9
LESCO	14.7	12.8	-1.9	2052	14.4
QESCO	18.1	14.1	-4.0	651	4.6
MPECO	17.5	15.6	-1.9	1769	12.4
PESCO	27.6	29.4	+1.8	3525	24.8
HESCO	34.9	33.9	-1.0	2487	17.5
KESC	34.8	29.2	-5.6	1422	10.0
				14219	100.0

Distribution: The WAPDA and KESC monopoly over distribution was broken up in 1998 when the system it had operated was split into eight companies. Including KESC which was transferred to private ownership in 2005, the system serves 18.9 million customers and sells 71,928 GWh of electric power. These numbers are for 2006-07. In terms of the number of customers served, the Multan Electric Power Co. (MEPCO) in central Punjab is the largest accounting for nearly 18 percent of the total. The Lahore Electric Supply Co. (LESCO) has the largest share – close to 20 percent – in terms of the units of power sold. The highest sale per customer is by the Quetta Electric Supply Co., the QESCO, with 9 Gwh per account. Some of the distribution systems are antiquated contributing to major losses estimated at between 34 percent for the Hyderabad Electric Supply Co. the HESC, to 8.9 percent for the Islamabad Electric Supply Co., the IESCO.

Decentralization of the distribution system -- a process that is still not complete – has brought about some improvements. As shown in the Table 6 above, all but one system saw some reduction in distribution losses. The largest improvement came in Karachi Electric Supply Co, the KESC, which was placed in private hands with 74 percent of its shares sold to the new operators. Notwithstanding the improvements, the distribution system still loses a significant amount of power, estimated at 14,219 GWh or 14.5 percent of total generation of 98,242 GWh. (See Table 5.) This loss has created a large burden for the government since it is factored into the way the subsidies are calculated for the distribution companies. (See the discussion in Part 5 below.)

Systems Coverage: In 2006-07, the electricity system sold 73,000 GWh to 18.9 million customers. This was 74.3 percent of the amount of power generated. As much as 25.7 of available power was lost for various reasons. Total energy consumption as indicated by the billing of the nine distribution companies grew at a rate faster than in the 1990s – at a compound annual growth rate of 7 percent compared to 4 percent.

Institutional structure and its evolution over time

The institutional structure supporting the development of the energy sector has changed significantly over time. It has evolved in several phases, again as an effort to deal with the various crises the country has had to deal with. At the time of independence, electricity generation was the responsibility of the privately owned companies located in the major cities. Private sector was also responsible for importing and distributing small amounts of oil to meet domestic needs. The small amount of coal that was extracted or brought into the country was also in the hands of the private sector.

The state first ventured into the business of power generation in the early 1950s when the Warsak dam was constructed. In 1958, the state's role expanded with the establishment of the Water and Power Development Authority, the WAPDA, which was given the responsibility of generating, transmitting and distributing electricity power as a part of the massive Indus Water Replacement Works. These works included water regulating and transporting mechanisms that connected the three rivers in the Indus system that were allocated to Pakistan under the Indus Water Treaty of 1960. The WAPDA became the implementation authority for the complex engineering works (link canals, barrages and dams) that were built under the treaty. The share of WAPDA in power supply significantly increased in the 1970s with the completion of the dams on the Jhelum and the Indus. But the WAPDA did not confine its role to hydroelectricity; it also set up large thermal power plants in the country's south and invested heavily in building a national transmission grid. For a number of years the WAPDA was considered to be a model development agency working in the public sector in a third world country. Later it lost it efficiency and became politicized. In the 1990s, the agency was forced to employ thousands of workers on political grounds. With the weakening in the process of governance all over the country, WAPDA also suffered a serious efficiency decline.[91]

Discovery of large deposits of natural gas at Sui in Balochistan drew the public sector deeper into energy management. The government headed by President Ayub Khan decided to construct an elaborate system of pipelines for getting the gas into the more populated parts of the country. Gas was first taken to Karachi for feeding the industrial sector by a public sector entity called the Sui Southern Gas Limited. Later a sister company – the Sui Northern Gas Company – was set up to provide gas to the country's northern areas.

The third venture into energy by the public sector took the form of a petroleum distributing company, the Pakistan State Oil, the PSO. The government headed by Zulfikar Ali Bhutto toyed with the idea of nationalizing the distribution system

[91] For a description of the early years of WAPDA, see Gustav F. Papanek, *Pakistan's Economic Development and Social Imperatives,* Cambridge, Mass.: Harvard University Press, 1967.

operated by foreign oil companies. However, after receiving strong signals from the United States and other western owners of oil companies that such a move would seriously impair their relations with Pakistan, the Bhutto government abandoned the idea of nationalizing the oil companies. Instead, it decided to focus on the development of the PSO with the objective of developing an integrated system of exploration and development of oil and gas resources by the Oil and Gas Development Corporation (the OGDC), refining of crude oil by publicly owned refineries and distributing petroleum products by the PSO. This integrated system of public companies was meant to offer competition to the foreign enterprises that were operating in the country.

Table 7
Energy sector's institutional structure

Institute	Acronym	Date Established	Mandate
1. Water and Power Development Authority	WAPDA	1959	To develop and manage water and power resources. The authority was significantly restructured beginning 1992, a process that is still not completed in 2008.
2. Oil and Gas Development Company Ltd.	OGDC	1961	To explore and develop oil and gas fields
3. Pakistan Atomic Energy Commission	PAEC	1956	To build and operate nuclear energy plants.
4. Karachi Electric Supply Corporation Ltd.	KESC	Established in 1913 under the Indian Companies Act 1883, the government of Pakistan took control of the company in 1952.	To generate and supply electric power to Karachi
5. Sui Gas Pipeline Ltd	SGEPL	1959	To supply natural gas to Balochistan and Southern Sindh
6. Pakistan State Oil	PSO	1974	Retail distribution of petrol and petroleum products.
7. Sui Northern Gas Pipeline Ltd.	SNGPL	Initially established as a Private Limited Company in 1963 but converted into Public Limited Company in	To supply gas to nor, Pakistan

		1964.	
8. National Electric Power Regulatory Authority	NEPRA	1996	To determine tariff grant licences and prescribes performance standards for independent power producers
9. Pakistan Electric Power Company	PEPCO	1998	To develop and manage thermal power statics
10. Alternative Energy Development Board	AEDB	2004	To facilitate development of alternative sources of ……..
11. National Transmission and Dispatch Co.	NTDC	1998	To manage the great system originally developed by WAPDA
12. Distribution Companies	DISCOS	1998	To distribute power to consumer is various region
13. Oil and Gas Regulatory Authority	OGRA	1998	To regulate private sector enterprises in oil and gas sectors.

This increasing role of the state owned enterprises in the public sector coupled with the pricing policy followed by the government (see below, Section 5) created an enormous fiscal burden for the state. One consequence of this was the government's inability to invest in the development of energy resources and increasing the capacity to generate electric power. As indicated above, the resource burden on the state led to a profound change in the government's policy towards the electric power sector. With the help of the World Bank's IFC, Islamabad developed a policy framework that prescribed incentives to independent power producers (IPPs) to invest in electric power generation. Initially, the agreements with the IPPs were developed by a small unit in the Prime Minister's office which was disbanded after the government changed in 1996.

The next phase of institutional development took place beginning in the early 1990s. It had three parts: one, the plan to break-up WAPDA into a number of separate entities – for developing power both thermal and hydel, for managing the extensive grid system and for distributing power to the consumers – was finally put into place. (See Table 5). Two new regulatory agencies for watching over the entities in electric power, oil and gas sector were established. Three, the government took the step to develop renewable sources of energy.

The proliferation of institutions disbursed state's power over a number of different entities. This dispersion reduced the ability to provide centralized guidance that was available when most of this work was done essentially by one agency – the WAPDA. It would be appropriate to review the institutional structure once again and to reorganize it to bring about greater efficiency and cohesion.

Pricing policies and their impact on the fiscal situation

The government has taken full responsibility for determining the price of various energy products for the consumers. This was the case even when the private sector was allowed into the business of power generator – generation. Even with the private sector generating power they had an arms-length relationship with the consumers. The power generating entities signed purchase power agreements with the government controlled WAPDA on a "take or pay basis." If the WAPDA did not take the generated power, even then it had to pay the producers. The sale price to the consumers was initially determined by the government. The prices the government set had built-in cross-subsidies determined not on the basis of some strategy the governed wished to pursue. The prices mostly reflected the weight of the favored groups in the political system. Overall the pricing policy has tended to favor household consumers and within the household sector there is only a slight price gradient among different classes of users. One consequence of this is the heavy use of air-conditioning and other high energy using appliances by the relatively well-to-do households. This has created a serious distortion in the patterns of electricity consumption in the country. This may change as a result of the significant changes introduced by the government in early September in electric power tariffs which, at first glance, seem to increase the gradient from low income to high income users.

The same approach of total government control over pricing was followed in the case of oil and various oil products where the difference between the price to the consumers and the cost to the operating company was met by the state as subsidies. Since the government was reluctant to fully pass on the price to the consumers, its subsidies have increased. This has been the case in recent months as the price of imported oil has increased enormously. For oil products the government also followed the approach of equalizing the price across the country. This meant, in effect, the consumers in the southern parts of the country (those living near the ports) subsidizing those in the northern parts.

The approach followed for natural gas was no different. Since the companies distributing the product were located in the public sector, subsidies remained within the confines of the state. For several decades the governments policy with respect to natural gas was based on the cost for mining and transmitting it. It took time before the government was convinced that for the purpose of economic efficiency the price should be based on the price for alternate forms of energy. In Pakistan's case this would have meant basing natural gas price on the price of imported oil. Had this policy been adopted, it would have slowed down the increase in the rate of consumption, made the household sector more cautious about using it as a fuel of choice, and resulted in the transfer of larger amounts of resources to the province of Balochistan, the main source of supply of natural gas.

Price policy in the electric power sector has evolved since the institutional reorganization of the sector that began in the mid-nineties and is still underway. Even with the changes introduced in recent years, electricity tariffs do not fully reflect the economic value of electricity for the economy. The economic value can be derived through the use of several methodologies – for example the costs that would be incurred by the consumers for using alternate sources of power supply, the cost of expanding supply through the existing grid system. With part of the reorganization in place, the NEPRA has prepared indicative benchmark tariffs for various technologies

As already discussed, up until the adoption of power sector reform policy – a process begun in 1992 and still not fully implemented – electricity prices to the consumers were determined by the government. They have now been made the responsibility of the, NEPRA in so far as the distribution companies are concerned. In February 2007, NEPRA issued a tariff determination for each of the eight distribution companies providing an overall increase of 27.5 per cent per Kwh of distributed energy. However, the government, which still has the authority to determine the price to the consumers, allowed an increase of only 6 per cent average for the companies. The difference was absorbed by the government in its budget as subsidy to the consumers. This was done to provide a secure financial footing for the distribution companies while not placing a large additional burden on the consumers. This is not a viable approach since it will only aggravate the macroeconomic situation by increasing fiscal deficit which in turn will put pressure on the balance of payments and the level of prices.

Table 8
Fiscal Deficits Emanating from the Energy Policy
(percentage of GDP)

	1997-08	**2007-08**
Electricity	2.0	2.4
Petroleum and petroleum products	0.4	0.6
Natural gas	0.1	0.2
Total	2.5	3.2

Source: Author's calculations based on the data provided by the Ministry of Finance.

What has been the fiscal impact of the energy price policy that continues to sudsidise several categories of e consumers? The answer to this question is not a simple one since a significant amount of the cost borne by the government is in the form of contingent liabilities. Some of these take the form of what Islamabad's policymakers call "triangular debt." This is the non-payment of dues to the WAPDA by various governments and government agencies. The government of Azad Jammu and Kashmir, the Federally Administered Tribal Areas (the FATAs), and various military establishments have traditionally held back payments. Some threaten default unless they are rescued by the federal government through payments from the budget. Because of serious budgetary constraints the government has been slow to release funds to WAPDA so that the latter could pay the IPP for the power it purchased. The IPPs responded by cutting

down the power they produced further adding to the serious supply-demand gap. (See Section 6 below.) In August 2008, the government instructed the commercial banks to lend Rs. 67 billion (equivalent to 2 percent of GDP) to WAPDA so that it could clear the bills of the independent power producers.[92] The burden on the government, therefore, takes three forms: subsidies to the various energy agencies on account of the explicit difference between the real price of the energy supplied and the cost to the consumer, and hidden subsidies paid to the various, mostly politically sensitive or powerful agencies, that can afford to force the federal authorities to pay these bills. Table 8 offers some rough estimates of the fiscal burden carried by the state on account of the energy price policy it has followed. This is clearly not a fiscally sustainable situation.

Significant charges in the energy price policy, therefore, must have a high priority. The scaffolding of an institutional structure needed to develop a new price regime exists but the government needs to move forward with some urgency.

The government should make use of the reform program it has already instituted by taking four further steps. First, it needs to develop an integrated tariff and subsidy scheme that ensures that consumer tariffs cover supply costs while incorporating some features to encourage improvements in distributional efficiency. This may require the use of multi-year tariffs for various DISCOs. Second, the government should proceed with the intention incorporated in the original design of the reform program that would allow the establishment of a wholesale market for electric power. The ultimate objective would be to move towards a multi-seller, multi-buyer electricity generation-transmission and distribution regime. Third, the regulatory regime established under the reform program needs to be developed further with mechanisms established to resolve disputes between the government and NEPRA and the various licencees it has the responsibility for regulating. The government may consider establishing “Power Courts” for this purpose. Fourth, further improvements in governance are required so that the various entities operating in the sector have full responsibility for their financial situation.

The Current Situation

This is a period of a severe energy crisis in Pakistan. In the first half of 2008, the government revealed that the supply-demand gap in electricity had increased to 4000 MW, or 20% of the total generation capacity. A Cabinet meeting held on May 14, 2008 adopted a number of measures to reduce demand. These included the adoption of day light saving time that resulted in advancing the clock by one hour on June 1. All commercial enterprises were ordered to close on Friday while government offices and corporations were asked to observe Sunday as the weekly

[92] Information provided by a senior banker from Habib Bank.

holiday. Government offices were to reduce the duration for air conditioning use. The government also launched a program to distribute ten million energy saving electric bulbs to those interested in making the shift. It was expected that these measures would reducing electricity demand by 1,000 MW, an unlikely target. The government also announced plans to invite international bids for generating 1,200 MW of electricity on a fast track basis.[93] Once again action by the government was spurred on by a deep crisis. The contemplated response will not produce efficient development of the energy sector. For that to happen, policymakers will have to develop a comprehensive and integrated approach for meeting the economy's.

Unlike previous power shortages, the 2007-08 crises coincided with a sharp upturn in the price of oil in international markets. Since thermal power accounts for two-thirds of the installed capacity (see Table 1 above), the increase in the price of oil, most of which Pakistan imports, placed a very heavy burden on the economy. The contemplated increases in energy supply will increase the use of imported fuel oil for electricity generation exacerbating the pressure on external sources.

At this time individual households and small business have started installing small generators. Somewhere between 100,000 to 250,000 have been imported and installed at a cost of well over Rs 30 billion. The combined output of these generators is possibly between 100 and 150 MW. This is a very expensive way of meeting the power shortage. Since a significant proportion of these are run on imported diesel fuel they are adding to the high fuel bill as well as putting an additional burden on the already strained urban environment. Also, meeting the supply-demand gap by installing generators in individual households and small businesses is an option available to a small segment of the population. This solution is perhaps feasible for no more than 20 percent of the households. By further turning to their own devices for filling a function that should be provided by the state or by the public utilities operating under the supervision and regulation of the state, the rich and the well-to-do are further isolating themselves from the ordinary citizenry. They are already sending their children to expensive private schools; many of them have turned to private security operators to purchase protection not provided by the police; and they have begun to purchase second homes in the Middle East and Europe to escape from Pakistan when the weather becomes hot or the temperature of political discourse rises. Now, by installing private power generators, they have created another little island for themselves. The use of private generators to deal with power shortage, therefore, have all kinds of high costs: economic environmental, political and social.

[93] Sher Baz Khan "Comprehensive plan for power consumption", *Dawn*, May 15, 2008.

Changes in the external environment

Islamabad's policymakers, preparing themselves to deal with yet another energy crisis must realize that history, this time around, will not repeat itself. While on previous occasions, the government was able to access foreign capital, this time they will have to contend with two new factors: One, there is a structural change taking place in the oil markets which will not bring the price of oil anywhere near where it was before the current series of increases began to take place. In the middle of 2008, the price of a barrel of oil touched $147, the highest in both nominal and real terms. While by September 2008, the price had declined to $ 100 a barrel experts agree that this time the increase represents a paradigm shift as the demand-supply gap has tightened. The increase in global demand is largely the result of the sharp increase in the rates of growth in the GDPs of China and India. Both countries have more than a billion people each and in both cases GDP growth has a higher energy content than is the case with the mature industrial economies. Two, the country is unlikely to have access to foreign capital flows of the magnitude that became available in the 'seventies and 'eighties. It is useful to go over the history a little bit to produce greater awareness among the policymakers about the changed circumstances in which they are now operating.

Last time the developing world faced a serious energy crisis was in the last quarter of the 20th century. The crisis began in 1973 when the Arab oil producers and exporters, upset over the less than an even handed approach adopted by the United States and its western world in the Arab–Israel conflict decided to use oil as a weapon. "But one of the most potent weapons [used in the Yom Kippur War] was unique to the Middle East," wrote Daniel Yergin in his book on the history of oil. "It was the oil weapon, wielded in the form of an embargo – production cutbacks and restrictions on exports – that in the words of Henry Kissinger, 'altered irrevocably the world as it had grown up in the postwar period'. The embargo, like the war itself, came as a surprise and a shock. Yet the pathway to both in retrospect seemed in some ways unmistakable. By 1973, oil had become the lifeblood of the world's industrial economies, and it was being pumped and circulated with very little to spare. Never before in the entire postwar period had the supply – demand equation been so tight, while the relationship between the oil-exporting countries and the oil companies continued to unravel. It was a situation in which any additional pressure could precipitate a crisis – in this case, one of global proportions".[94]

Both developed and developing countries – in particular those that imported oil – faced a deep crisis following the embargo. The oil producers delivered another shock in 1979-81 after the Islamic revolution in Iran that brought Ayatullah Khomeini to power. The price of oil doubled once again and a number of developing nations, in

[94] Daniel Yergin, *The Prize: The Epic Quest for Oil, Money and Power*, New York, Simon and Schuster, 1991, p 588.

particular those in Latin America, borrowed heavily and expensively to pay for the oil bill. The debt crisis of the 1980s in Latin America and in some other parts of the developing world, was the direct consequence of the price politics played by the Oil Producing and Exporting Countries, the OPEC. Two developments saved Pakistan from meeting the same fate. One was the migration of millions of Pakistanis to the Middle East to work on the construction sites as the oil exporting countries of the region put their petrodollars to work building roads, offices, buildings, shopping centers and large houses. The construction boom lasted for a decade and a half. It petered out in 1991 when Iraq's Saddam Hussain invaded Kuwait and the United States responded by launching what is now known as the Gulf War I. In the fifteen year period between 1975 and 1980, worker's remittances to Pakistan, most of them sent by the migrants working on the construction sites, amounted to $21 billion. In the same period Pakistan paid a total of $75 billion on oil imports. The remittances, in other words, financed 28 percent of the total oil bill.

The other development which helped Pakistan pay for the increased oil bill was the decision by Islamabad to join the United State and Saudi Arabia in the effort to remove the Soviet Union troops that had occupied neighboring Afghanistan. Consequently, the United State's development assistance that had declined to a paltry sum of $23.3 million in the six year period between 1975 and 1981, picked up in the 1980s. In 1980-81, Pakistan received $27.5 million from the US, an amount 18 percent greater than in 1975-81. There were sharp increases in the following years, in 1982-89, Pakistan received a total amount of $ 1.5 billion, or an average of $217 million a year.[95] This time the sharp increase in the price of oil comes without financial compensation from any source.

There is now a consensus among experts that demand factors are more important in pushing up the price of oil than supply constraints. Oil consumption is expected to reach 86.8 million barrels a day, 800,000 barrels a day higher than in 2007. According to International Energy Agency (IEA)[96] this projection is significantly less than the 2 million barrels a day increase it had forecast earlier. Still, slowing demand in industrialized countries will be more than offset by growth in China, India and the Middle East. Chinese oil demand is expected to rise by 410,000 barrels a day, reaching 7.95 million barrels a day in 2008, while Middle East consumption is expected to rise by 330,000 barrels a day, to 6.84 million barrels a day. However, some other experts believe that the IEA's forecasts are still too optimistic. Energy analysts at Merrill Lynch, who pared down their outlook for global demand this year,

[95] See Shahid Javed Burki, "U.S. assistance to Pakistan," *Dawn,* July 22, 2008.

[96] The mandate of the IEA, which was established after the oil shocks is 1974 includes, includes coordinating the emergency responses of industrialized countries when supply in disrupted. The last time the energy agency intervened was in 2005 after Hurricane Katrina knocked out production facilities in the Gulf of Mexico.

believe that oil prices would have to rise even more in order to suppress consumption globally. “While demand reduction is on the way, oil price may still spike further in the near-term to cause behavior change in consumers and governments alike,” Merrill Lynch said in a report. Notwithstanding these relatively small differences in the outlook about the future of the oil markets, it is prudent for a country such as Pakistan to base its strategy on high oil prices being sustained over the medium and the long term.

Planning for the future

Given the crisis through which the country is currently passing and the projected increase in the demand for all forms of energy, the government needs to carefully plan for the future. A start was made by the previous government when the Planning Commission, in its medium-term development plan for the 2010 – 2030 period, made forecasts for future demand for electricity. It concluded that the country will need to increase capacity eight fold between 2005, when the capacity was 19,540 MW, to reach 162,590 MW by 2030. An eight-fold increase over 25 years, implies an annual increase of 8.7 percent, much faster than the increase in the previous quarter century. The Commission’s proposal implies distributing the sources of generation over different types of fuels. As shown in Table 9, 51.5 percent of the proposed increment to the generation capacity is to be from the use of gas as the fuel. Another 20 per cent will come from water and 12.2 per cent from the use of coal. It is not clear whether the Commission concluded that the mix of fuels implicit in its projections is the most optimum one for the country given its endowment and the likely changes in the external environment, particularly changes in relative prices. If such an exercise has not been done, it needs t be urgently undertaken.

Table 9
Power Generation Plan

	Nuclear	Hydel	Coal	Renewable	Oil	Gas	Total	Cumulative
Existing (2005)	400	6,460	160	180	6,400	5,940	19,540	
Addition								
2010	-	1,260	900	700	160	4,860	7,880	**27,420**
2015	900	7,570	3,000	800	300	7,550	20,120	**47,540**
2020	1,500	4,700	4,200	1,470	300	12,560	24,730	**72,270**
2025	2,000	5,600	5,400	2,700	300	22,490	38,490	**110,760**
2030	4,000	7,070	6,250	3,850	300	30,360	51,830	**162,590**
Total	**8,800**	**32,660**	**19,910**	**9,700**	**7,760**	**83,760**	**162,590**	

Source: Planning Commission of Pakistan

Price policy will also needs to be revised with three objectives in mind by the policymakers. First, the burden on the budget must be reduced to create fiscal space the government could use to spend on development. Second, high income households must pay a much higher price for electricity consumption. Third, the

private sector must be allowed to play a much larger role in determining the prices of various forms of energy products.

If Pakistan's policymakers are to treat the sector of energy as strategically important for the country's economic development they must now find answers to a number of questions. These have been largely ignored in the past. What should be the main sources of energy supply and how much reliance should be placed on the resources available within the country? Since water is one of the more important sources of generating electric power and since its use has been thwarted by provincial politics, how can consensus be achieved for maximizing the country's large hydroelectric potential? Coal is an important domestic resource; it could be used for both generating electricity as well as supplying fuel for some of the industries. But the use of coal poses a number of serious environmental problems. What can be done – in particular what kind of regulatory framework can be put in place – so that coal can be used as a source for energy while protecting the environment? How should the country develop renewable sources of energy, in particular wind and solar power? What kind of incentive structure can be put together to increase the share of renewable sources in power supply?

Then there are some questions that are specific to the situation the country faces at this time. How to take care of the shortages that are already seriously hurting the economy and causing some discomfort to the citizenry? Are there some short term solutions that can ease the burden placed on the economy? What should be the sources for generating electricity over the medium and long term? Whatever choices are made by the government, it will have to take cognizance of the fact that it takes a long time to bring additional generation capacity into operation. In this context the short-term strategy will have to be looked at differently from the strategy for the long-term.

How then to deal with the grim problem power shortage has created for the country given that any reasonably economic situation has a long gestation period? Is the only option is for the country to buy or rent barges that have reasonably large generators installed on them? Should the government consider obtaining several barges and anchoring them outside Karachi? The power generated by them, say 1,000 MW, could be delivered into Karachi's distribution system. An equal amount of power could be fed into the national system for feeding the areas north of Karachi.

A more permanent supply solution would involve a decision on what is the most important fuel for generation given Pakistan's domestic resources as well as the cost for obtaining them from the outside. In this context, the data presented in Table 2 above are instructive. The table shows that Pakistan now has a very different mix of fuels for power generation when compared to the rest of the world. For the world coal is by the far the most important fuel for power generation; for Pakistan, on the

other hand, natural gas is the dominant fuel for power. At one point in its history, Pakistan had an abundance of gas. However, after the construction of two vast pipeline networks, the use of gas for several different purposes has increased to the point that the reserves have now been seriously depleted. Given the possible uses of gas as a household fuel and as a feedstock for various chemical industries (including fertilizer), to use it for producing electricity may not be a good strategy. Fuel oil (most of it imported) is now the second most important input for power generation, accounting for 20 percent of the total production of electric power. For the world, the share of fuel oil is considerably smaller, only 7 percent. Given the recent sharp increases in the price of oil, Pakistan has to carefully review the fuel-for-power-generation policy it has pursued.

Electricity and provincial autonomy

One really radical and somewhat ambitious ways of dealing with the enormous problem created by the growing electricity demand–supply gap is to bring in the provinces into the energy sector. In Prime Minister Yusuf Raza Gilani's maiden address to the newly elected parliament it was indicated that his government will grant greater autonomy to the provinces in economic matters. If that were to be done, he would have kept the word given a quarter century ago when the then Prime Minister Zulfikar Ali Bhutto promised that the provinces will have a larger role to play in the new Pakistani federation. He was prepared to yield more authority to the federating units in return for their support for his constitutional draft. The support was given but the word was not kept. Bhutto, by temperament, could not easily share power with others. This was the case with his cabinet colleagues. This also became the case concerning Islamabad's relations with the provinces. Bhutto dismissed the two administrations headed by the opposition – one is Balochistan and the other in the NWFP – once the 1973 constitution was promulgated. Under the two military presidents who held power after Bhutto's removal, Pakistan became a progressively more centralized state.

As Pakistan now grapples with an economic crisis of unprecedented proportions the grant of provincial autonomy may be part of the solution Islamabad is seeking. Not only should the promise of the 1973 constitution be fulfilled. It may be a good time to go even beyond by what could be achieved by the transfer to the provinces of the subjects listed in the constitution's concurrent list. By transferring greater authority to the provinces in three areas – international trade, financial resource generation and the sector of energy – Pakistan may be bale to lay the ground for solving not only its current economic problems. This move would also mean bringing about structural changes that will strengthen both the economic and political systems.

Over time the institutional underpinning of the management of the energy sector has changed significantly. Initially two government owned entities had total control over the

electricity sector. Of these the WAPDA was the dominant player responsible for generating, transmitting and distributing electricity to all areas of Pakistan other than Karachi. For Karachi, this was the responsibility of the Karachi Electricity Supply Company, the KESC. However, under pressure from the donor community, the government decided to privatize the KESC and split the WAPDA into several components. Two separate operational units were set up to manage thermal and hydel power generation while distribution was divided among eight district companies that were to become financially autonomous over time. A separate agency was established to manage transmission. Regulation of the power sector including tariff determination was handed over to an autonomous entity. The purpose of this institutional restructuring was to lesson the control of the government over electricity and subject its generation, transmission and distribution to the rigors of the market place. That has not happened. For instance the tariffs recommended by the regulator were not initially accepted by the government. It continued to subsidize the sale of power to all categories of consumers thus increasing the burden on the budget.

At this time we would suggest a radically different approach to the solution of the energy problem. The government should split the responsibility for power generation into three parts. Large projects generating more than 1,000 MW should remain with the WAPDA while smaller units should be allowed to be established either by the private sector or by the provincial governments. The private sector should continue to work within the policy framework determined by the central government. The provincial governments should be permitted to establish their own generating companies with the support of the private sector. One more feature of this arrangement would be to allow the provinces to trade electricity with one another. The sale prince would be determined through negotiations. It would not be fixed by the central regulator. This approach will allow each province to tap its own resources. Sindh would most likely concentrate on coal and natural gas; Balochistan also on these two sources while also developing the potential of wind power; the NWFP will work to develop its enormous hydel potential; the Punjab could develop small hydel units on the many canal heads that are parts of its large irrigation system. Each province could develop solar power abundantly available to all of them. The revenue generated through this sale of power to domestic users or traded with other provinces would provide capital for investment.

If the Punjab were to rely on natural gas as the fuel, it should procure it at the market price from the provinces where it is produced. If it decides to use imported fuel oil, that too should be obtained at market prices. If the province decides to subsidise the use of power by some category of consumers, it should do so by providing support through the budget rather than by distorting the price structure.

Such an approach has many benefits. It would establish a market for trading electricity, which was one of the objectives of the reform effort launched a few years

ago. It would deal with the resentment of such relatively more backward provinces as Balochistan and the NWFP that they have not been adequately compensated for the use of their rich resource base by the more developed parts of the country. It would encourage the efficiency of resource use by making electricity an openly traded commodity. It would create incentives for the provinces to do research and development in such new technologies as solar, wind and waste products' utilization. It would ease the burden on the central government for increasing generation capacity. And it would produce a healthy competition among the provinces.

Once this three-tier system is established and has created an operational track record, some of the larger units could also be handed over to the provinces. At this point while the central Punjab is the largest consumer of electricity, large amounts of power it receives are produced in the NWFP (at Tarbela), in Azad Kashmir (at Mangla) or in the gas fired plants in various parts of the province. By purchasing this power from the provinces, it would help to reduce the economic grievances of the country's more backward areas.

Conclusion

There are a number of sector-specific initiatives the government will be required to take to achieve the goals specified in this report. Only with such actions will the government be able to place the province of the Punjab on a sustainable path of high growth. However, the government's involvement will not stop with policy changes in some of the more important sectors of the economy. Some non-sectoral approaches are also required. They are the object of Part Six of the report.

The Future Structure of the Energy Sector

The analysis presented in this paper will lead to a number of recommendations. These are incorporated in the policy agenda and policy matrix in the final part–part 10–of the paper. If these become public policy, they will significantly change the structure of the energy sector. As a result Pakistan will narrow the gap that currently exists between itself and some of the more advanced developing countries in Asia in terms of per capita consumption of energy. There will also be some narrowing of the widening gap in consumption by different segments of the population, between rural and urban areas, among different parts of the economy, and among different provinces of the country. This will result from the better design of price and fiscal policies that will be based on these considerations. Over the next decade the it is the policy of the state to have all villages accessing electricity. Those in the country's remote areas should rely to a much greater extent on wind and solar power, thus reducing the need to expand the reach of the national grid system. This should lead to a change in the fuel mix for generating electric power with greater role for hydro and coal and smaller role for oil and gas. There should be considerably greater use of such renewable as wind and the Sun for generating power.

Energy intensity of the economy will increase with much greater use by the sectors of agriculture and domestic commerce of most forms of energy, including electric power.

The government's role in the management of the energy sector will also change with much greater role assigned to the private sector. The government should push forward with its privatization program, bringing private operators into gas and electric power transmission and distribution.

PART EIGHT

POLICY AGENDA

What are the policy implications of the foregoing analysis concerning the Punjab's growth prospects? In particular how could Punjab climb on to a trajectory which would produce a sustainable growth rate of over 8 percent a year in its GDP and much over 6 percent increase in income per capita of the population? How could this rate of growth be made inclusive so that its benefits accrue to all segments of the society and are spread fairly evenly among the different regions of the province? What needs to be done to bring women into the main stream of the economy of the Punjab? What is the best, and for the economy the most productive, way to engage the 45 million young people so that they help the economy and the society to advance rather than be attracted to extremist causes? What changes are needed in the institutional structure of government to attain these two sets of objectives – accelerated growth and evenly distributed rewards of growth?

The answer to these and many other questions are to be found in the detailed policy matrix with which this study concludes. We have developed four scenarios in order to underscore the impact on the provincial economy of various rates of economic growth, each determined by a different public policy choices. In moving from lower to higher rates of growth – from 2 percent a year increase in the province's GDP to over 8 percent – the policymaker will need to develop some of the resources the province currently possesses and are vital for promoting fast development of the economy and modernization of the society.

There are several resources available to the province on which the policymakers could concentrate their attention. These are the human resource; the several sectors of the economy that could be nurtured to contribute to rapid growth, provide employment to the youth and to women; the province's geographic location, in particular its proximity to India, one of the largest and most rapidly growing economies; and the recently created but still to be developed capacity to handle development at administrative levels closer to the people. The task for the government will be to bring these resources together to produce a high rate of GDP growth that is also inclusive.

We will first present some of the main conclusions reached in the study before laying out in a detailed matrix some of the policy recommendations and changes in the structure of institutions encompassing various aspects of the economy. Institutional development is a critical part of the reform of the agenda we have proposed in this study. Our recommendations are presented in Box 1.

BOX 1
RECOMMENDED INSTITUTIONAL CHANGES

1. Establish a new wing in the P&D Department that will identify the "winners" in the various sectors of the economy based on developing a good understanding of the changes in the global economy.
2. Establish an international trade wing in P&D Department to formulate province's proposal for changes in the framework for international trade.
3. The province should recommend the establishment of a permanent secretariat for the Council of Common Interests, the CCI, which should work with the Ministry of Commerce to formulate the trade policy and oversee its implementation.
4. The **Provincial Corporation for Domestic Commerce Development** should be established with a mandate similar to the one suggested for the SMEDA.
5. **Land courts** should be established first on a pilot basis for a few districts to replace the current system of land administration. After evaluating the performance of the courts, they should be established in all the districts.
6. Establish an **Agricultural Marketing Corporation** in association with the private sector to modernize trade in agricultural products.
7. An **Agricultural Production and Export Corporation** should be set up in association with the governments in the Middle East interested in purchasing land in the province to produce agricultural products for export to the Middle Eastern countries.
8. A **Livestock Development Bank** should be set up in association with the private sector to provide credit to the livestock producers.
9. Working with the federal government provincial government should break-up the **Small and Medium Enterprise Development Agency**, the SMEDA,into provincial corporations. The Punjab SMEDA should have the mandate expand its mandate to include analytical work aimed at the identification of the "winners" and facilitating access to finance for the chosen enterprises.
10. The **IT Sector Curriculum Development Committee** should be set up with members drawn from the academia and the industry.
11. A **Committee of Concerned Citizens** should be established for naming government buildings, roads and highways, parks, colleges, universities and hospitals in order to remember the people who have made contributions to the province's and country's history.

We will now summarize some of the main conclusions of the study before offering them in a policy matrix. The study:

- Indicated why the Punjab has the potential of becoming an engine of economic growth for the rest of Pakistan. However, for that to happen a number of policy initiatives will need to be taken in order to ensure that the province achieves its full economic and social potential. The Study also emphasized that the government will have to ensure that the approach adopted will not be dramatically changed even when power gets transferred from one party to the other as a part of the established political process. Policy consistency is an important component of strategies aimed at obtaining high rates of growth. This is a lesson taught by the economies around the developing world that have grown rapidly over the last several decades.

- Analyzed why there is a close association between politics and economics and why this link may have initially inhibited the Punjab's economic development but why the current political configuration may contribute to the province's significant economic growth and social modernization. What is important about the make up of the current leadership is that it draws its strength from both the urban and rural parts of the Punjabi society. In the earlier parts of the province's history the landed class dominated policymaking.

- Discussed the richness of the Punjabi economy and its many endowments. One reason why the Punjab has the potential to become the lead economy in the country is the province's rich inheritance. Some of this dates back to the time of the British raj and some of which was developed later. This inheritance was largely ignored by the past administrations, some of it for political reasons.

- Indicated why the strategy that would help to realize the province's potential will need to be different from those pursued in the recent past or recommended in the two economic reports published by the then administration, one in 2005 and the other in 2007. We believe that the successful pursuit of the recommended strategy would propel the economy of the Punjab into the front ranks of the rapidly growing economies of Asia.

- Emphasized why it is important to grant reasonable amounts of economic and financial autonomy to the provinces as originally conceived in 1973 when the current constitution was written and promulgated. Bringing governance closer to the people will improve the quality of investment that will be made to increase the citizen's welfare.

- Suggested why agriculture will need to be by far the most important sector in the economy and why it will underpin several other components of the strategy. The recent paradigm shift in global commodity prices has added to the significance of the sector of agriculture for the Punjab's growth strategy. The search for agricultural land by the resource rich countries of the Middle East has also provided the Punjab an opportunity it could exploit to commercialize parts of the sector of agriculture.

- Proposed focus on the development of the sector of livestock which is now a large component of the rural economy. Developing the sector to realize its considerable potential will not only contribute to the growth of the provincial economy. It will also contribute to exports and help alleviate poverty.

- Emphasized why it is important for the government to pay attention to the improvement of the province's irrigation infrastructure which is one of its

richest endowments. For several decades the maintenance of the irrigation network was neglected. In recent years the government has begun to pay some attention to the sector and has begun to find a way of involving the farming community in managing the vast infrastructure.

- Placed emphasis on the industrial sector and suggested why it too could play a significant part in accelerating the rate of economic growth, creating productive employment opportunities and having industry reach more backward regions of the province. The report also indicated why emphasis should be on small and medium sized industries in which the province possesses human skills and experience. There was also the possibility of creating international markets for the products of these industries.

- Placed emphasis on carving out a greater role for the provinces in contributing to the design of trade policy and the formulation of a national trade agenda. Developing robust trade relations with China, India, Afghanistan, Central Asia and the Middle East should be an important part of this agenda. This will mean concentrating on the production of exportable surpluses in which the Punjab has comparative advantage. In this context the study recommended a number of institutional changes that include building capacity in the Council of Common Interests (CCI) to accommodate provincial trade interests as well and creating capacity in the Planning and Development Department to work on trade issues.

- Emphasized the development of domestic trade as an important component of province's trade policy. At this time the sector of domestic commerce is dominated by very small and inefficient enterprises. These operations need to be scaled up and for that to happen the provincial government will need to provide active regulatory support. The nature of this support is detailed in the policy matrix placed below.

- Suggested that the provincial government should allow the local governments to play a much more important role in providing education up to the twelfth level and for providing basic health care. The provincial government should confine its attention in the sectors of education and health to regulation, certification and supervision. The educational and health institutions currently run by the government should be privatized and the receipts from privatization should be placed in a Social Development Endowment Fund that should issue education and health vouchers to low income families. These vouchers are to be used in the education and health institutions managed by the private sector.

- Suggested that the state should facilitate the development of three sectors that have the capacity to productive employment opportunities to the rapidly

growing workforce. The sectors needing facilitation by the state are domestic commerce; information technology and communication; and transport, intra- as well as inter-city.

- Emphasized the development of the sector of tourism while recognizing that it will be several years before Pakistan will be able to attract foreign tourists. Initial focus should be on developing domestic tourism and tourism by the members of the 6 to 7 million strong Pakistani diasporas in the Middle East, Britain and North America.

- Suggested in several ways how the diasporas could be mobilized for promoting the development of the province. There are several examples available from other countries (China, Mexico, India) with respect to the interaction of the diasporas with the development of the homeland. These examples should be studied as guide for the policymakers for drawing up the frameworks that would involve the Pakistani expatriates more closely in the development of their country.

- Focused on the changing demographics of the province and suggested concentrating on the development and certification of skills in the areas in high demand in both the international and domestic markets. This should be done in collaboration with the private sector.

- Suggested why it is necessary to divide the urban areas into four parts in order to study the different dynamics that operates in them. The study suggested the formulation of separate approaches for the province's large cities, areas in the peripheries of the large cities, middle-sized cities and small towns.

- Recommended the involvement of the private sector in developing intra-city as well as inter-city transport. The study suggest charging fees from the operators and earmarking the proceeds for the development of passenger facilities along the routes on which they operate.

- Suggested an organized method for remembering people who have contributed to the country's history by naming buildings and government places after them.

Before we go onto present the detailed policy matrix that has some 60 suggestions in 16 areas areas, it might be important to underscore one important point about this study. We have departed in several different ways from the conventional ways of undertaking development. In suggesting that the rate of economic growth and social change could be measurably quickened from the targets embedded in some earlier reports, we have drawn from the experience of several rapidly growing Asian economies. It is our considered belief that it is well within the capacity of the Punjab

to aim for a rate of GDP growth averaging 8 percent a year over the next dozen years, starting at a lower rate initially but reaching above this average by the year 2020. This will become possible if three over riding conditions are met. One, a well thought-out strategy is formulated to guide the state and the private sector. This study represents one approach that could be adopted. Two, the role of the state should be redefined in several different ways. There will have to be much greater reliance on the private sector provided private enterprise is constrained within appropriate regulatory frameworks. Three, the government needs to get closer to the people which will necessarily involve greater transfer of economic and social authority from the federal to the provincial governments and from the provinces to the institutions of local government.

In presenting our policy proposals, we have suggested the creation of a number of institutions or strengthening those that are already in operation. We identify these recommendations separately in Box 1 while Box 2 lists the policy proposals made in the study.

BOX 2
POLICY MATRIX

	Policy Area	Policies	Institutions Responsibility
1.	Provincial role in economic and social strategic planning	1. The government should work with the federal authorities to grant greater financial responsibility to the provinces. The constitutional provision to establish National Financial Finance Commission should be observed. The NFC should be established every five years with the expectation that each NFC will issue its award in a timely manner.	Planning and Development Department in association with Finance Department.
		2. The provinces should be allowed greater role in planning for their growth keeping in mind the resources available to them.	
2.	Medium-term economic and financial strategic planning.	3. The state should play a different role in promoting development, identifying the “winners” to be supported in each sector. Analytical capacity for identifying the winners should be developed in the P&D Department.	Planning and Development Department in association with the Finance Department.
		4. The Punjab government should continue the practice, started in 2005, to prepare and publish an economic report on the province. However, this task should be undertaken yearly with one or two areas to be given detailed attention every year.	
		5. The medium term program presented in this study should be adopted. It should be reviewed and updated every year.	
		6. The medium-term program should be costed out with the sources of finance identified updated every year.	Finance Department
3	Provincial economic and social data	7. The Punjab government, in association with the Federal Bureau of Statistics, should produce provincial income accounts. These should be updated every year and published as an index to the annual economic report.	Planning and Development Department and the Bureau of Statistics.

BOX 2
POLICY MATRIX

	Policy Area	Policies	Institutions Responsibility
4	District development	8. Beginning with the large and more developed districts (e.g. Lahore, Faisalabad, Gujranwala, Multan, Sialkot), district government's should prepare development plans. These should be updated every two years. The Punjab government should draw up a ten year program to cover all districts.	Planning and Development Department and District government
		9. A training program should be developed to create the capacity at the district level for preparing the development plan.	Planning and Development and Local Government Departments
		10. Modules should be developed for the districts to create economic, financial and social data bases and to keep them updated.	P&D and Local Government Departments
5	International Trade	11. The federal government should invite the provinces to participate in the making of trade policy. The responsibility for coordinating provincial inputs should be given to the Council of Common Interests. The CCI should have a permanent secretariat for carrying out this function.	The Council of Common Interest
		12. The Government of Punjab should establish a trade unit in the P&D Department for preparing provincial position on trade issues.	Planning and Development Department
6	Domestic Commerce	13. A policy framework for the promotion of domestic commerce should be adopted with commercial activities treated at par with industry in terms of taxation and other government policies.	
		14. In scaling up to the size of enterprises operating in domestic commerce the government's help should include setting up of supply chains providing technical assistance and providing finance.	P&DD and Local Government Department
		15. A Provincial Corporation for Domestic Commerce should be set up by the government in association with the private sector. It should provide finance and advice to the enterprises operating in the sector.	
		16. A packaging and transport wing should be set up in the cooperation to assist the enterprises on a charge-back proposed basis.	
		17. Districts government should set of properly regulated markets for the sale of perishable commodities. Four districts should be selected to review their zoning and commercialization rules to facilitate and promote commercial development. If successful, these pilot programs should be replicated in other districts.	
		18. Price controls should be removed from all agricultural and animal products.	
7	Finance	19. The government should mobilize Pakistani diasporas in the Middle East, Britain and North America (Canada and the United States) to establish private equity and venture capital funds in the country. A policy framework should be developed for this purpose in consultation with the Federal Government.	P&DD and Local Government Department

BOX 2 POLICY MATRIX			
	Policy Area	**Policies**	**Institutions Responsibility**
		20. The Government of Punjab should experiment with giving greater financial responsibility to some of its credit worthy cities. The selected cities should be required to develop their financial plans identifying the sources of finance.	Finance Department and Local Government Department
		21. Selected cities should be allowed to tap the domestic capital markets for raising resources for development.	
		22. The districts preparing to go to the market should be required to obtain credit ratings from government approved credit agencies.	
8	Agriculture	23. The government should identify the "winners" in the sector, focusing on high value added crops.	Finance Department, Local Government Department
		24. Development plans covering periods of five years should be formulated for each of the selected winners. These plans should be included in the annual economic reports.	P&D Department, Agriculture Department
		25. Computerization of land records should be undertaken for all districts. The implementation of the World Bank financed program should be speeded up.	
		26. Land courts should be established first on a pilot basis to replace the current system of dispute resolution and then adopted for the entire province.	Agriculture Department, Board of Revenue
		27. Land Banks should be established in all the districts chosen as pilots for the creating and courts.	
		28. Supply chains (including cold chains for perishable products) should be established with the government providing technical assistance in the initial phase. The government may consider the establishment of an Agricultural Marketing Cooperation in association with the private sector. The Marketing Corporation should have separate wings for all identified "winners".	
		29. Agriculture research efforts should be reorganized to focus on the products identified as winners. The government should continue the program to establish autonomous research corporations for individual crops/products.	Agriculture Department and P&D Department
		30. Agricultural Production and Export Corporations should be setup to work with the Middle East governments interested in buying large chucks of land for exporting agricultural produce to their countries.	
9	Livestock	31. Larger amounts of credit should be made available to the operators in this sector. One way of making this possible is to set up a Livestock Development Bank in partnership with the private sector.	Government of Punjab
		32. Capacity should be created at the local level to provide livestock health services.	Livestock and Local Government Departments

BOX 2
POLICY MATRIX

	Policy Area	Policies	Institutions Responsibility
		33. Working with the private sector, the government should develop a program for milk collection in all major livestock centers of the province	Livestock Department
		34. In partnership with the private sector, the government should establish dairy development and extension centers in all villages with populations of more than 500 people.	Livestock Department
10	Irrigation	35. The government should continue with the program to involve local communities in the management of water resources.	Irrigation Department
		36. The government should continue to develop and expand the program to digitize information on water availability in the canal systems.	Irrigation Department
		37. The provincial government should study the system of water pricing to optimize the use of the scarce resource. Resources generated by water tax should be earmarked for expenditure on the development and maintenance of the irrigation system.	P&D and Irrigations Department
11	Industry	38. After a careful review of the opportunities available in the international marketplace, the government should identify the "winners" in the sector that will receive its attention.	P&D Department
		39. The government should review the regulatory system with the objective of consolidating it within one or two agencies.	
		40. The government should work with the federal government to provincialize the SMEDA's operations.	Government of Punjab
		41. The SMEDA's mandate should be expanded to include the identification of winners and to make small and medium enterprise owners aware of the new sources of finance such as private equity and venture capital.	P&D Department and SMEDA.
		42. In partnership with the private sector, the government should post commercial councilors in selected countries to promote markets for the winners.	
		43. The government should study the feasibility of establishing industrial estates for the production and development of product lines for which external markets exist. These estates could be developed in cooperation with the governments of the countries with potential markets for the Punjab's product.	
12	The IT Sector	44. The provincial government should study the opportunities available and becoming available in the market place to guide the private sector for investing in high value opportunities.	P&D Department.
		45. Fiscal (including tariff) incentives should be provided to deepen the penetration of broad band. The government should setup IT centers in all major cities. These should be provided with modern	

BOX 2 POLICY MATRIX			
	Policy Area	**Policies**	**Institutions Responsibility**
		infrastructure.	
		46. District governments in large cities should replicate Lahore's Hafeez Center to consolidate IT services in one location.	
		47. A committee with representation from the teaching institutions, industry, agriculture and the government should be set up to help modernize teaching curricula in the educational institutions operating in the IT sector.	
13	Tourism	48. The Punjab Tourism Development Corporation (PTDC) should concentrate its activities on (a) encouraging domestic tourism and (b) tourism by the members of the Pakistani diasporas in the Middle East, Britain and North America.	P&D Department and PTDC
		49. The PTDC should develop specific programs for the diasporas concentrating on sites in the Murre hills, the Potohar Platean (the Kalar Kahar Area in Pakistan) and Cholistan desert.	
		50. The PTDC should work with the hotel businesses to built 3 and 4 star hotels in all large cities of the province.	
14	Transport	51. The government should draw up policy and regulatory framework to sanction intra-city bus operations. Licences for operating specified routes should be auctioned with the proceeds earmarked for providing passenger facilities at the designated bus stops.	P&D Department.
		52. The Inter-city operators should be taxed to contribute to further development of service facilities along the motorways and highways. All major cities should have proper bus stations serving all companies from one place.	
		53. The provincial government should continue the plan to build the Lahore mass transport system.	
		54. The government should develop four urban strategies one each for (a) the major cities, (b) major cities peripheries, (c) middle-sized cities and (d) towns. These strategies should cover periods of five years.	
		55. The large cities should be asked to develop their financial plan for financing development and facility improvements.	
		56. The large cities should service their zoning policies to encourage high rise development thus slowing down the encroachment on land.	
		57. Close to teaching intuitions.	
		58. Each of the five major cities should be encouraged to establish Art and Culture centers. These should be run by the Provincial Art Council which should carry out a major fund raising program with	

BOX 2 POLICY MATRIX			
	Policy Area	**Policies**	**Institutions Responsibility**
		the offer of naming the five centers after the largest donors.	
		59. The PTDC and the Archaeology Department should develop programs for historical presentation aimed at hundred of sites available in the country.	
15	Presentation of History	60. A Council of Concerned Citizens should be established to name government buildings – offices, hospitals, schools and colleges – to honor the people who have contributed to the country's history.	

Annexure 1
Punjab's Population

Year	Total population (Million)	Growth per annum %	Urban (Million)	% of Total	Growth %
1947	18.50	-	5.00	27.00	-
1951	20.54	2.2	5.60	27.30	12
1961	25.46	2.2	7.05	27.50	25.6
1972	37.61	3.4	10.38	27.60	47.2
1981	47.29	2.7	13.05	27.80	25.7
1982	50.01	5.8	13.95	27.90	6.9
1983	51.56	3.1	14.49	28.10	3.9
1984	53.16	3.1	15.04	28.30	3.8
1985	54.81	3.1	15.62	28.50	3.9
1986	56.51	3.1	16.16	28.60	3.5
1987	58.27	3.1	16.84	28.90	4.2
1988	60.06	3.1	17.42	29.00	3.4
1989	61.93	3.1	18.08	29.20	3.8
1990	63.85	3.1	18.77	29.40	3.8
1991	65.83	3.1	19.49	29.60	3.8
1992	67.87	2.7	18.38	29.90	-5.7
1993	69.91	2.7	18.95	30.00	3.1
1994	72.01	2.6	19.56	30.20	3.2
1995	74.03	2.6	20.18	30.30	3.2
1996	76.09	2.6	23.2	30.50	15.0
1997	78.22	2.6	24.2	31.00	4.3
1998	75.09*	2.6	23.50	31.30	3.4
1999	76.89	2.6	24.10	31.34	3.5
2000	78.74	2.5	24.70	31.37	3.6
2001	80.16	2.5	25.17	31.41	3.6
2002	81.60	2.4	25.65	31.43	3.7
2003	83.06	2.4	26.14	31.46	3.8
2004	84.56	2.4	26.63	31.49	3.8
2005	86.09	2.3	27.22	31.62	3.8
2006	87.55	2.3	27.72	31.66	3.9
2007	89.04	2.2	28.23	31.70	3.9
2008	90.64	1.8	29.36	32.39	4.0
2009	92.27	1.8	30.59	33.15	4.2
2010	93.94	1.8	31.94	34.00	4.4
2011	95.63	1.8	33.38	34.91	4.5
2012	97.25	1.8	34.88	35.87	4.5
2013	98.90	1.8	36.52	36.92	4.7
2014	100.68	1.8	38.06	37.80	4.2
2015	102.49	1.8	40.07	39.10	5.3
2016	104.34	1.8	42.05	40.30	4.9
2017	106.22	1.8	43.76	41.20	4.1
2018	108.13	1.8	45.41	42.00	3.8
2019	110.07	1.8	47.22	42.90	4.0
2020	112.05	1.8	48.85	43.60	3.5

* According to the Government of Punjab.
Source: *Punjab Development Statistics 2007,* various issues.
Values from 2008 onward are author estimates.

Annexure 2
City and town populations

Alphabetically City Name	Size	In Descending Order City Name	Size
1. Ahmadpur East	146	1. Lahore City	6677
2. Ahmadpur Sial	54	2. Faisalabad City	2733
3. Arifwala	89	3. Rawalpindi	2294
4. Attock	138	4. Gujranwala City	2109
5. Bahawalnagar	159	5. Multan	1600
6. Bahawalpur City	509	6. Sargodha	528
7. Bhakkar	84	7. Sialkot	525
8. Bhalwal	141	8. Bahawalpur City	509
9. Burewala	184	9. Sheikhupura	456
10. Chakwal	93	10. Kasur	442
11. Chichawatni	85	11. Gujrat	426
12. Chiniot	302	12. Jhang	356
13. Chistian	122	13. Rahimyar Khan	345
14. Chunian	74	14. Okara	324
15. Darya Khan	66	15. Chiniot	302
16. Daska	147	16. Sahiwal (Sahiwal Distt.)	268
17. Dera Ghazi Khan	242	17. Depalpur	250
18. Depalpur	250	18. Khushab	248
19. Faisalabad City	2733	19. Dera Ghazi Khan	242
20. Ferozwala	144	20. Sadiqabad	200
21. Gojra	137	21. Kharian	197
22. Gujranwala City	2109	22. Khanpur	189
23. Gujrat	426	23. Jhelum	187
24. Hafizabad	174	24. Burewala	184
25. Haroonabad	100	25. Khanewal	181
26. Hasilpur	89	26. Muzaffargarh	179
27. Isa Khel	52	27. Hafizabad	174
28. Jampur	85	28. Muridke	174
29. Jatoi	67	29. Bahawalnagar	159
30. Jhang	356	30. Kot Addu	152
31. Jhelum	187	31. Kamalia	149
32. Kabir Wala	118	32. Daska	147
33. Kamalia	149	33. Ahmadpur East	146
34. Karor Pacca	91	34. Ferozwala	144
35. Kasur	442	35. Bhalwal	141
36. Khanewal	181	36. Pattoki	139
37. Khanpur	189	37. Attock	138
38. Kharian	197	38. Gojra	137

Annexure 2 City and town populations			
Alphabetically City Name	**Size**	**In Descending Order City Name**	**Size**
39. Khushab	248	39. Layyah	133
40. Kot Moman	51	40. Pakpattan	131
41. Kot Addu	152	41. Mandi Baha-ud-Din	130
42. Lahore City	6677	42. Chistian	122
43. Layyah	133	43. Mianwali	122
44. Lodhran	80	44. Narowal	119
45. Mailsi	108	45. Kabir Wala	118
46. Mandi Baha-ud-Din	130	46. Vehari	114
47. MianChannu	106	47. Mailsi	108
48. Mianwali	122	48. MianChannu	106
49. Multan	1600	49. Rajanpur	103
50. Muridke	174	50. Haroonabad	100
51. Muzaffargarh	179	51. Pindi Bhattian	94
52. Nankana	78	52. Chakwal	93
53. Narowal	119	53. Pasrur	93
54. Okara	324	54. Karor Pacca	91
55. Pakpattan	131	55. Arifwala	89
56. Pasrur	93	56. Hasilpur	89
57. Pattoki	139	57. Piplan	87
58. Pindi Bhattian	94	58. Sambrial	87
59. Pind Dadan Khan	54	59. Chichawatni	85
60. Piplan	87	60. Jampur	85
61. Rahimyar Khan	345	61. Bhakkar	84
62. Rajanpur	103	62. Lodhran	80
63. Rawalpindi	2294	63. Nankana	78
64. Sadiqabad	200	64. Chunian	74
65. Sahiwal (Sahiwal Distt.)	268	65. Toba Tek Singh	70
66. Sahiwal (Sargodha Distt.)	58	66. Jatoi	67
67. Safdar Abad	54	67. Darya Khan	66
68. Sambrial	87	68. Shorkot	62
69. Sangla Hill	57	69. Shahpur	59
70. Sargodha	528	70. Shakargarh	59
71. Shakargarh	59	71. Sahiwal (Sargodha Distt.)	58
72. Shahpur	59	72. Sangla Hill	57
73. Shorkot	62	73. Ahmadpur Sial	54
74. Sheikhupura	456	74. Pind Dadan Khan	54
75. Sialkot	525	75. Safdar Abad	54
76. Toba Tek Singh	70	76. Isa Khel	52
77. Vehari	114	77. Kot Moman	51

Annexure 2 City and town populations			
Alphabetically City Name	**Size**	**In Descending Order City Name**	**Size**
Source: Punjab Development Statistics 2007, Bureau of Statistics, Punjab, Lahore.			

Annexure 3
Punjab Labour Force Unemployment Rate (Rural)

Year	Labour Force Unemployment Rate								
	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1975	3.5	1.8	3.5	1.7	0.7	2	2.1	0.9	2.1
1979	5.5	16.4	6.2	3	8.8	4.3	3.5	9.7	3.5
1985	6.8	6.5	6.7	3.7	1.5	4.3	4.5	2	4.5
1991	7.3	31.8	10.4	4.6	14.6	7.5	5.4	18	5.4
1995	7.0	24.6	8.9	4.3	8.3	6.0	5.0	11.2	5.0
2000	9.6	31.1	12.6	5.9	10.9	6.9	7	15.3	8.5
2002	8.6	23.0	10.8	6.2	12	7.6	7	14.4	8.5
2004	9.1	17.9	10.4	5.5	7.8	6.1	6.7	9.6	7.4
2006	7.8	14.9	8.9	4.7	5.1	4.8	5.7	6.9	6.0

Source: *Social Development in Pakistan 2006-07: Devolution and Human Development in Pakistan*, Social Policy and Development Centre.

Annexure 4
Punjab Real per Capita Government Expenditure in Selected Social Sectors
(at constant price of 2000)

Year	Education	Health	Population Planning	Social Security & Social Welfare	Water Supply & Sanitation
2001	302	82.4	0	4.4	20.9
2002	317.7	87.5	0	5.7	20.5
2003	343.7	101.7	6.2	5.1	5.8
2004	440.7	113.4	6.8	4.8	6.1
2005	456.2	113.5	7.2	8.6	16.5
2006	452.2	116.6	8.7	7.3	54.3

Source: *Social Development in Pakistan 2006-07: Devolution and Human Development in Pakistan*, Social Policy and Development Centre.

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4. For a detailed description of the recruitment practices followed by the British in India, see Shuja Nawaz, *Crossed Swords: Pakistan: Its Army, and the Wars Within*, Karachi, Oxford University Press, 2008.

5. There is a rich literature on the administrative system established by the British during their rule over India. One of the more comprehensive accounts is Philip Mason, *The Men Who Ruled India*, New York, W.W. Norton, 1985. This is an abridged version of his two volume study that appeared under the sub-titles of *The Founders* (1953) and *The Guardians* (1954).

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2. For a discussion of the dispute between Pakistan and India on the use of the waters of the Indus River system see Aloys A. Michel, *The Indus Rivers: A Study of the Effects of Partition*, New Haven, Conn., Yale University Press, 1967.
3. 3. In an article published several decades ago I suggested that the green revolution of the late 1960s was led by the small and medium sized farmers. This hypothesis was vigorously contested by the left-leaning sociologist, Hamza Alavi. Both articles were included in a book of essays about Pakistan and Bangladesh. See Robert D. Stevens, Hamza Alavi and Peter J. Bertocci (editors), *Rural Development in Bangladesh and Pakistan*, Honolulu, the University of Hawaii Press, 1976.
4. The Punjab Land Alienation Act prohibited the transfer of land from the people it classified as "non-agriculturalists" to those who were deemed to be agriculturalists. This was to prevent the Hindu moneylenders from using land as the collateral from the heavy borrowings by the Muslim peasantry and then foreclosing in case of default. Consequently there was little land owned by the Hindus in the Punjab. The Sikhs were considered to be agriculturalists.
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Part Seven References

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Tables

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