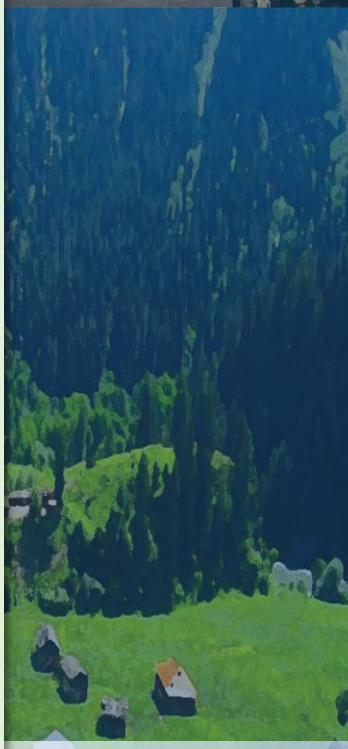
Rethinking the Industrial Policy of AJK (RIPA):

Targeted interventions for improving the Economic, Disaster and Climate Resilience



Abstract

AJK is rethinking its economic growth while mainstreaming climate and disaster resilience. The ‘rethink’ suggests that the Government of Azad Jammu Kashmir should focus on revitalizing the Tourism, Energy, and Data industries through: youth skill development and developing small and medium enterprise, holistically supported by financial services and women inclusion, while appropriately leveraging the special economic zones—can lead to sustainable growth in AJK. The report concludes key approaches in Tourism, Energy, and Data industries, and points to the need for continuing this work to now expand the actual policy measure and institutional responsibilities.

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List of Acronyms

AJK	Azad Jammu Kashmir
GoAJK	Government of Azad Jammu Kashmir
SME	Small and medium sized enterprise
TA	Technical Assistance
TOR	Term of Reference
DRM	Disaster Risk Management
RIPA	Industrial, Trade and Tourism policy
UNFCC	United Nations Framework Convention on Climate Change
SEZs	Special Economic Zones
TLC	Traffic Light Classification
FDI	Foreign Direct Investment
ADB	Asian Development Bank
AJKPDO	AJK Power Development Organization
AKSIC	Azad Kashmir Small Industries Corporation
BOA	Board of Approval
BoT	Built on Transfer
CAM	Common Areas and SEZ Maintenance
CAPEX	Capital expenditure
CCI	Council of Common Interest
CETP	Combined Effluent Treatment Plant
COTHM	College of Tourism & Hotel Management
CPEC	China–Pakistan Economic Corridor
EMP	Environmental Management Plan
FBR	Federal Board of Revenue
FERRP	Flood Emergency Reconstruction and Resilience Project
GIS	Geographical Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GWh	Gigawatt hour
HR	Human Resource
ICT	Islamabad Capital Territory
IMF	International Monetary Fund
IRCICA	Research Center for Islamic History, Art and Culture
kWh	kilowatt hour
LoC	Line of Control
LSM	Large Scale Manufacturing
MCCI	Mirpur Chamber of Commerce & Industry
MICS	Multiple Indicators Cluster Survey
Mil	Million
MSEZ	Mirpur Special Economic Zone
MW	Mega Watt
NEPRA	National Electric Power Regulatory Authority
NOC	No Objection Certificate
NTDC	National Transmission & Dispatch Company
PC-1	Postal Clerk First Class
PCA	Principal Component Analysis
PDS	Provincials Development Statistics
PKR	Pakistani Rupee
PPC	Private Power Cell
PPIB	Private Power and Infrastructure Board
PSLM	Pakistan Social and Living Measurement Survey
PTDC	Pakistan Tourism Development Corp
S.D.	Standard Deviation
SDGs	Sustainable Development Goals
SWOT	Strength, Weaknesses, Opportunities and Threats
SWWD	Social Welfare and Women's Development Department
TVET	Technical and Vocational Education and Training
UK	United Kingdom

UNICEF	United Nations Children’s Fund
USD	United States Dollar
WAPDA	Water and Power Development Authority
WASH	Water, Sanitation. And Hygiene
WB	World Bank

1. Why does GoAJK need to rethink its Industrial Policy: Understanding the Institutions and Governance of AJK and the Drivers for Rethinking Industrial Policy

1.1. Background

This report is a project being financed through a Technical Assistance (TA) provided by Asian Development Bank (ADB) that has been implemented to enhance the disaster risk management (DRM) capacity of Pakistan.

The TA's broad Terms of Reference (TOR) agreed with the government include support for implementing agencies to (i) establish project management systems; (ii) augment the social safeguards, procurement, contract management, and technical due diligence capacity; and (iii) develop linkages to enhance DRM capacities, coordinate Multi Hazard Vulnerability and Risk Assessment (MHVRA) and disaster mapping activities. The activities under third output for DRM mainstream, besides others, include (i) support for linkages of the DRM activities; (ii) technical advice on climate change plans; and (iii) mainstreaming DRM and climate change plans in the economic plans.

As part of this work, a climate change policy for Azad Jammu Kashmir (AJK) was developed and adopted by the GoAJK to mainstream disaster and climate change resilience into different sectoral policies. This is largely achieved through revisions, updates and development of key sectoral strategies and polices for water, agriculture, forestry and energy.

As part of this mainstreaming, this project contributes to suggesting changes to the Industrial Policy in the wider context and is called "Rethinking the Industrial Policy of AJK: targeted interventions for improving the Economic, Disaster and Climate Resilience" (RIPA).

Latest research suggests that traditional industrial policies run the risk of disappointing people. Productivity, globally, has outstripped demand—manufacturing as share of GDP declining globally—partly due to services part of the industrial process vertical being automated (this is also fanning the fears of disappearance of jobs—actually, impacting wages and flow of knowledge). This phenomenon is similar to changes in the agriculture sector in the advanced economies in the last century. Pakistan at large is an example. AJK is microcosm of the same. AJK is also essentially a landlocked region—long distance (logistics distance) to sea and export markets. Disadvantaged by being an autonomous region; at the same time advantaged by the same autonomy. The modern 21st century economy demands to deconstruct the traditional manufacturing export lead growth and older import substitution models. Instead use a comprehensive approach combining manufacturing, agriculture, services, and natural resources. Supported by learning, innovation, and technology while understanding the reskilling and retooling of humans and institutions that is required alongside.

Even the best policy along these lines can easily be held hostage to constraints in availability of capital—*especially to the private sector*. Reviewing the financial structures as well as the tax structures within AJK will add value. *The pros and cons of shifting of industries from Pakistan to Mirpur, AJK,* are being reviewed—industries in AJK are not largescale employers and nor is there much data on value of production and on direct and indirect spillover impact on the AJK economy [of these industries]. It appears that these industries are enjoying tax benefits while not really contributing significantly to the AJK economy—at the same time there is no data on their overall environmental and social impacts which on the environmental side alone could be negative.

The RIPA will also look at the interactions between availability of credit (micro and small, both at individual and enterprise levels) and development of tourism and related businesses.

The process of consultations and development of the policy is of great value to the AJK government, in addition to the actual product (the policy)—as it builds capacity of the AJK institutions and stakeholders.

Therefore, in developing this report, wide ranging consultations were carried out with the GoAJK and with other AJK stakeholders through organized Focus Group Discussions (FGDs), planned and conducted jointly with the Department of Industries of AJK and under the guidance of the Planning and Development Department (P&DD). A team of consultants contributed to these discussions, the analysis and the resulting report.

As an overall governance goal, GoAJK has defined *human development and sustainable use of its natural resources as its goal*. This goal is in consonance with the objective of mainstreaming disaster and climate resilience within AJK policies, and forms the basis of this project and the resulting report. This project utilized the existing information on climate change and disaster resilience as a boundary condition for the analysis and discussions and the resulting policy[1] recommendations.

1.2. Rethinking AJK's Industrial Policy—Setting the Objectives

The political and security dynamics of AJK have not let the region capitalize on its natural resources, vibrant diaspora, relatively better literacy rate than Pakistan and tourism potential. The team of consultants took stock of the existing position after rounds of deliberation with government and private sector in various localities of AJK. The Policy document thus is not confined to manufacturing or industrialization, rather it broadly covers the sectors and areas where economic potential can be harnessed under the existing socio-political and security environment, while sustainably ensuring climate change and disaster resilience and to identify how the region can leap forward given the geo-political and other constraints are to be dealt with.

The industrial and economic policy envisioned for AJK is to leap forward by skipping a generation of growth, to move towards a knowledge base economy, while bringing competitiveness in existing resource seeking and tourism sector by bringing efficiency driven investment. The product sophistication and vertical integration is facilitated in a way to maximize the geographical location advantage; and horizontal policy is to focus on converting comparative advantage to competitive advantage.

Any economic policy success is hinged upon optimal utilization of financial capital of the region. The political dynamics are such that any business group from Pakistan operating in AJK cannot buy assets there, leaving the financial leveraging for AJK operations through mainland Pakistan. That hinders the overall financial ecosystem to develop in AJK, and even businesses originated from inhabitants of AJK are managing banking relations from big cities in Pakistan. The banks' branches in AJK are primarily deposits raising shops and savings from the region are routed to the rest of Pakistan for investment. The absence of financial capital and leveraging ability restricts entrepreneurship in AJK and has kept its investment levels low.

[1] "A 'policy' is a statement of intent to achieve certain goal(s) by a local, regional or national government of a country," as defined by United Nations Framework Convention on Climate Change (UNFCC). For this project, and for this report, the chosen definition is simpler and contextual: "The actions of government and the intentions that determine those actions," (Cochran et al. in Birkland, 2005: 18). For this project, 'policy' is treated distinctly from a) the institutions (and traditions) required to implement the said policy, b) the processes required to be laid down by the said institutions (and traditions), and lastly, c) the resources required (in terms, of administrative apparatus, human resources and financial resources). 'Policy' is also recognized as the required trade-off between social, economic, and political/security objectives.

The era of industrialization to become part of the global manufacturing chain is largely missed by Pakistan and particularly by AJK. Since AJK has mobility restriction due to line of control, it could be considered as a land locked country where, to become part of the global value chain is hinged upon how successfully Pakistan is deploying its industrial policy. That is why the districts in AJK which are in proximity to Pakistan can focus on manufacturing industries and can reap benefit of trade of goods to Pakistan and in turn to the rest of the world. While the districts which are close to the line of control or have higher distance for planes or being a mountainous region, the higher cost of transporting goods impedes the potential to benefit from deploying large manufacturing units.

Distance and border impediments and dependence as a quasi-landlocked region, are the prime reasons the development of SEZs and industrial parks are focused on Mirpur and surrounding districts. According to TLC classification (Chapter 3), Mirpur is the most developed state in AJK followed by Bhimber and Poonch. The policy document envisages the industrial development to be mainly confined to these districts where the flow of goods, services and labor is easy due to physical proximity with more developed regions like Jhelum, Rawalpindi and Gujrat. The policy note emphasizes on available financial capital for industrial development by channelizing the savings of the region to be invested within. Another factor to capitalize on being the vibrant diaspora from the Mirpur region mainly residing in the UK. The social and economic connections between the inhabitants of AJK and those who emigrated is strong, but the political mistrust owing to historic decision making by AJK Council is keeping the diaspora at bay from coordinating with the government to have public private partnership model of investment.

Once a few big industries or manufacturing units are hosted in Mirpur and surrounding districts of the AJK, SME development in the value chain could be a natural consequence. The other element important for SME development is to connect the production chain of industries operating in neighboring Pakistan districts. The policy document focuses on providing a conducive environment for SMEs development by having them access finance and reducing other impediments to improve on the core 'ease' of doing business so as to have higher competitiveness. An infrastructure of road networks, electricity and other energy source provisioning at competitive rates, industrial waste treatment facilities, financial capital, training for skilled labor and adequate housing and other amenities for skilled labor available in the region is needed. The TLC analysis and spatial studies will help in designing the targeted intervention in the limited resources and help in prioritizing the region and sectors to focus on.

The AJK host delegation held consultative focused group discussions with the major public and private sector stakeholders of AJK during summer of 2019. In these discussions, a comprehensive socio-economic overview of the AJK was presented along with a summary of the various initiatives being undertaken towards furthering the economic diversification and development—related to industrial, tourism and trade development. Ensuing discussions covered AJK diaspora's role in development, minerals development, skilling and human resource development, tourism promotions and related infrastructure development, impacts of recent hydropower development projects, promotion of distributed/community electricity provision, mainstreaming and promotion of information technology, and other possible opportunities that could underpin the development of the industrial, tourism, and trade policy. Highlights included: *the mention about the large—1.5 mil out of 4 mil total population—diaspora in various countries who are and potentially could be a driving force behind a good policy; the widespread skilling networks and the highly educated population; improving the new large hydropower projects impact towards local economy using the learnings from pre-CPEC projects; the work on the new Tourism Investment Act—including flexible approaches toward external investment, and development of tourism corridors; and, the renewed focus on IT mass literacy, e-governance, and software development.*

From the consultant team discussions and based on recent surveys, *it can be safely assumed that the Kashmiri diaspora considers that the approval processes from the Federal Government of Pakistan (GoP) for investment by Kashmiris in Kashmir is keeping investors at bay.* They find this obstacle higher than geo-political complexities. The government has to open up the regulatory regime by empowering local representatives in decision making and give tax breaks for such investments. At this point, the approach to industrialization in AJK is mainly the AJK stakeholders' led view, where, the undue presence of GoP (AJK Council) is impeding locals and foreigners to invest. *A more pragmatic approach would be to focus on FDI, SME and market led views to dominate*.

However, to achieve all the aforementioned policy objectives for rethinking the industrialization policy, there are some drivers of industrialization which act a catalyst for the policy in becoming a practical success. Some important ones are listed below

a) Economic conditions and stage of economic development;
b) Factor endowments, such as, skilled and low-cost labor, capital, natural resources, proximity to markets;
c) Geography and demographic characteristics (as were the case in East Asian countries);
d) Well-designed financial system with a capillary network of financial institutions accessible to private sector in rural and urban areas providing easier access to finance for firms and individuals;
e) Investment in human capital to provide a well-trained labor force is essential in ensuring that industrialization process is sustainable. Since it upgrades local capabilities and skills, it facilitates the process of structural transformation;
f) Investment in physical capital is crucial in increasing local production capacity and crowd-in private investment, particularly, Public investment in providing positive externalities to the private sector and in reducing potential bottlenecks on the supply side;
g) Size of domestic markets and stable economic, political, social and institutional settings; and;
h) Policies that play a central role in stimulating the redistribution of income that may boost domestic demand, since low-income groups tend to have a higher propensity to consume as well as capital inflows and competitive exchange rate regime[2].

Whereas, to achieve fruits of industrialization, following pre-requisites are important to be met;

a) Durability—double digit growth in manufacturing industries is required for at least first few decades;
b) Contribution to overall growth—the contribution of manufacturing industries remains significant in the overall GDP of the economy;
c) Structural change—Value addition is imperative as shift from simple raw material processing to highly complex production processes with advanced technology as the driver of industrialization;
d) Relative income—An income level that can sustain industrialization as compared to its competitors;
e) Export structure—the share of manufacturing sector should be significant in the total exports;
f) Agglomeration of Production—the state of AJK needs to specialize in few industries and exert all options to overtake leading market share of such few products. The

[2] UNIDO, 2018. Demand for Manufacturing: Driving Inclusive and Sustainable Industrial Development

market share should be captured through high quality and not through cheap price and inferior quality;

g) Vertical and Horizontal Integration—the leading industries should be complemented with vertical and horizontal integration by establishing supporting industries near the industrial zones of AJK. This would also increase the localization of manufacturing goods and keep it less vulnerable to external shocks;

h) Availability of Skilled Human Resource—for boosting industrialization, availability of skilled human resource is vital. A significant portion of human resource should come from local districts which should decrease the cost of production as well as increase employment opportunities in the state. Further, with multiplier effect, employment creation through manufacturing industries may lead to boost in economic activity driven by services and agriculture sectors[3].

Before progressing towards the major discussion on the policy development aspects, the current overall socio-economic picture of AJK is represented at a glance of the region in Table 1 and SWOT analysis Table 2. Table 1 shows the key socio-economic indicators of AJK state which are reported at the state level by the government of the AJK. Whereas, Table 2 presents the SWOT analysis of AJK prepared through consultations with the major stakeholders and through reviewing the existing literature on existing strengths, weaknesses, potential opportunities and threats faced by the state of AJK.

[3] UNIDO, 2017. What Factors Drive Successful Industrialization? Evidence and Implications for Developing Countries

Table 1 AJK at a Glance

Indicator	Figure
Population, total (millions)[4]	4.045
Population growth (annual percentage)	1.63
Urban Rural Population Ratio	13:87
Surface area (sq. km) (thousands)	13,297
Unemployment rate	10.3
Population density (people per sq. km of land area)	304
Literacy rate (percentage)	76.60
Literacy rate male (percentage)	88.10
Literacy rate female (percentage)	64.9
Total number of tourist (max annual influx)	800,000
Grid capacity (MVA)	847.80
Area under forest control (percentage)	42.60
Districts	10
Total length of roads (km)	17,033
Training and Vocational Institutes	222
Mortality rate under-5 (per 1,000 live births)	62
Expenditure on health department (million)	7,105
Expenditure of Education department (million)	25,300
Forest area (percentage of total area)	42.60
Electric power consumption (kWh per capita)	403
Power generation (annually in MW)	2,361
Total banks (no. of branches)	516
Major industries (percentage)	Wholesale & retail trade:17.4 Transport/storage & communication: 6.8 Community/social & personal services: 27.3 Construction:19.0 Agriculture & allied activities: 19.4 Manufacturing: 8.2
Major crops	Onion, Garlic, Potato, Cucumber and Tomatoes
Total Farm area (hectare)	642,149
Tax return revenue (million)	16500
Personal remittances, received (USD millions)	4000
Completed hydel power projects	13
Total hydel power potential (MW)	9,255.70

[4] AJ&K Statistical Yearbook 2018

Figure 1 SWOT by AJK Stakeholders

Figure 2 SWOT of AJK derived from targeted research

The study has conducted two separate SWOT analyses for the socio-economic conditions of AJK. The first SWOT (Figure 1) is designed on the perception of major stakeholders belonging from the public and private sector. The SWOT analysis was conducted on voting basis from the stakeholders on what they generally perceive are the strengths, weaknesses, threats and opportunities facing AJK. The detailed voting count on each indicator is shown in Annex 11. The second SWOT analysis was designed by using the perceptions and supporting them with data and research. Those indicators which could be supported with data and history are further analyzed in the next set of SWOT analysis, as shown in Figure 2.

The major strengths of AJK lie in its young, homogenous and literate population, about 70 percent of the AJK population is below the age of 30[5] with a population growth rate of 1.6 percent compared with 2.4 percent of Pakistan[6]; showing a lesser threat to economic resources. Further, AJK has a literacy rate of 76 percent compared to Pakistan's 60 percent[7]. However, this demographic dividend may soon turn into a demographic bomb due to very high youth unemployment rate of 18.4 percent.[8] This threat is vivid due to lack of economic opportunities for the youth, especially females who are facing a relatively higher unemployment rate of 19 percent compared with 9 percent of the male labor force. The major factors hindering employment creation opportunities in AJK are non-existent industry (except for Mirpur); weak services sector especially finance and telecom and; low investment. Even further, another weakness that is keeping the youth from gaining employment is the mismatch of skills. Skills learnt by the youth are not in demand and there exists almost zero supply for the skills attained by aspiring candidates. A recent report of TEVTA shows that 59 candidates with English language teaching skills were trained, however, there was no market demand for them.

AJK is blessed with natural resources; lush green forests being one of them. Eco tourism is one of the major attractions of AJK for tourists around the globe. AJK's total forest area covers 42.6 percent of the land, mainly gifted with Alpine forests. The annual tourist inflow is recorded at 0.7 million, however, there exists huge potential in enhancing the tourist inflow by providing a regime of better infrastructure, transport and easy visa issuance. However, the consistent threat in the form of heavy shelling from the 767km long Line of Control (LoC) border targeting citizens is one of the major impediments in attracting tourism[9]. There can be no tourism without restoration of peace and harmony in any area. The additional strength hidden in the rural tourism industry of AJK is the high electrification rate of 93 percent compared with 68 percent of Pakistan[10]. The electricity produced in AJK is 100 percent renewable, making it cheap and eco-friendly. Consistent supply of electricity is a major incentive for tourists who come to spend time in the woods. The flowing rivers of Jhelum, Neelum, Kunhar and Poonch have the massive potential of generating 9255MW of electricity that has only been exploited to 2361MW till date[11]. The hydro power generation of AJK has the capacity to create significant number of direct, indirect and induced jobs for the local population and can even induce economic activity in the industries of Pakistan.

The rich forestry of AJK also has the potential of supporting multiple wood related industries such as furniture, paper, medicine and lumber. Yet, the lack of an established industrial cluster is due to the weakness entailed in poor connectivity of AJK with Pakistan and the rest of the world. AJK remains a landlocked state with no railway line; road and air being the only

[5] The latest numbers available are from 1998 census of AJK
[6] AJK Population Census 2017
[7] Labor Force Survey, AJK 2017-18
[8] International Labor Organization (ILO), https://www.ilo.org/islamabad/info/public/pr/WCMS_614732/lanen/index.htm
[9] There were 1688 ceasefire violations only in the first eight months of 2018
https://www.thenews.com.pk/latest/361184-india-committed-1-686-ceasefire-violations-in-last-8-months-senate-told
[10] Pakistan Energy Yearbook, HDIP Pakistan
[11] AJK Power Development Organization

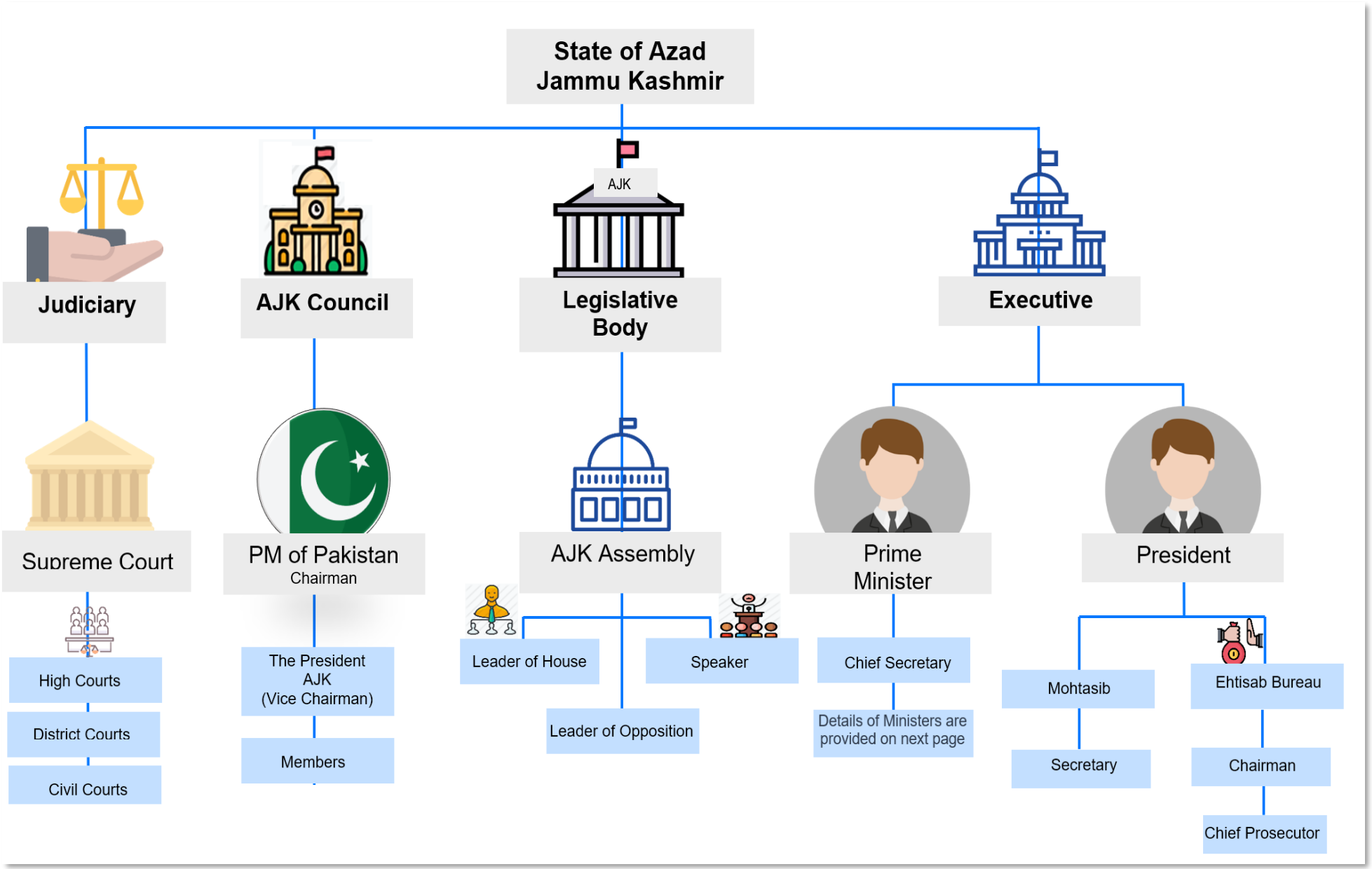
available mode of transport. To add to the misery, the only two airports of Muzaffarabad and Rawalakot have been closed since 2006, leaving road as the only way of connectivity with Pakistan. The proposed Muzaffarabad-Mirpur-Mansehra Motorway project is an excellent opportunity that may lead towards enhanced connectivity resulting in increased inter-country trade and transfer of skills and knowledge.

The agriculture sector of AJK is still relying on low value crops such as garlic, ginger, potatoes and tomatoes which may not be able to alleviate rural poverty. There is a need to shift the focus from low value adding crops to high value adding crops or towards the industry and services sector. Tourism and hospitality are the two major targeted sectors for interventions. Currently, 22 percent of the local population is engaged in these two sectors. Further engagement of locals can be made possible by opening up the monumental and religious sites of Banjosa, Tolipeer, Lasdana and Hajipir. Religious and archaeological tourism has the potential for increasing state revenues, as Pakistan is also stepping into this venture with the opening of the Kartarpur Corridor in Narowal. Tourism revenues can be a source for funding the state budget that is currently supported by just 24 percent of domestic mobilization, while the remaining deficit is being funded through aid and grants from Pakistan; showing weak efforts in resource mobilization.

1.3. Background of Current AJK Governance Model

AJK is governed by its Interim Constitution Act of 1974 and Parliamentary Democratic system where President of AJK is constitutional head of the State while the Prime Minister is executive head. In parallel, the AJK Council created under Section 21 of the Interim Constitutional Act, 1974, chaired by the Prime Minister of Pakistan enjoyed vast administrative and financial powers. Nevertheless, the 13th Constitutional Amendment of 2018 rectified the existence of two parallel administrative and financial authorities---the AJK Government and AJK Council. The responsibilities of the GoP are delineated under Part A of the Third Schedule of the Interim Constitution Act of 1974 that includes, *inter alia,* defense, security, external affairs, foreign trade, currency including foreign exchange, coins, nuclear energy, banking, corporations and its regulations excluding corporations owned and controlled by AJK, planning for economic coordination including planning and coordination of scientific and technological research, international treaties, conventions, agreements and International arbitration, duties of customs, including export duties, taxes on corporations.

Figure 3 Organogram of State of AJK



Structure of AJK Government

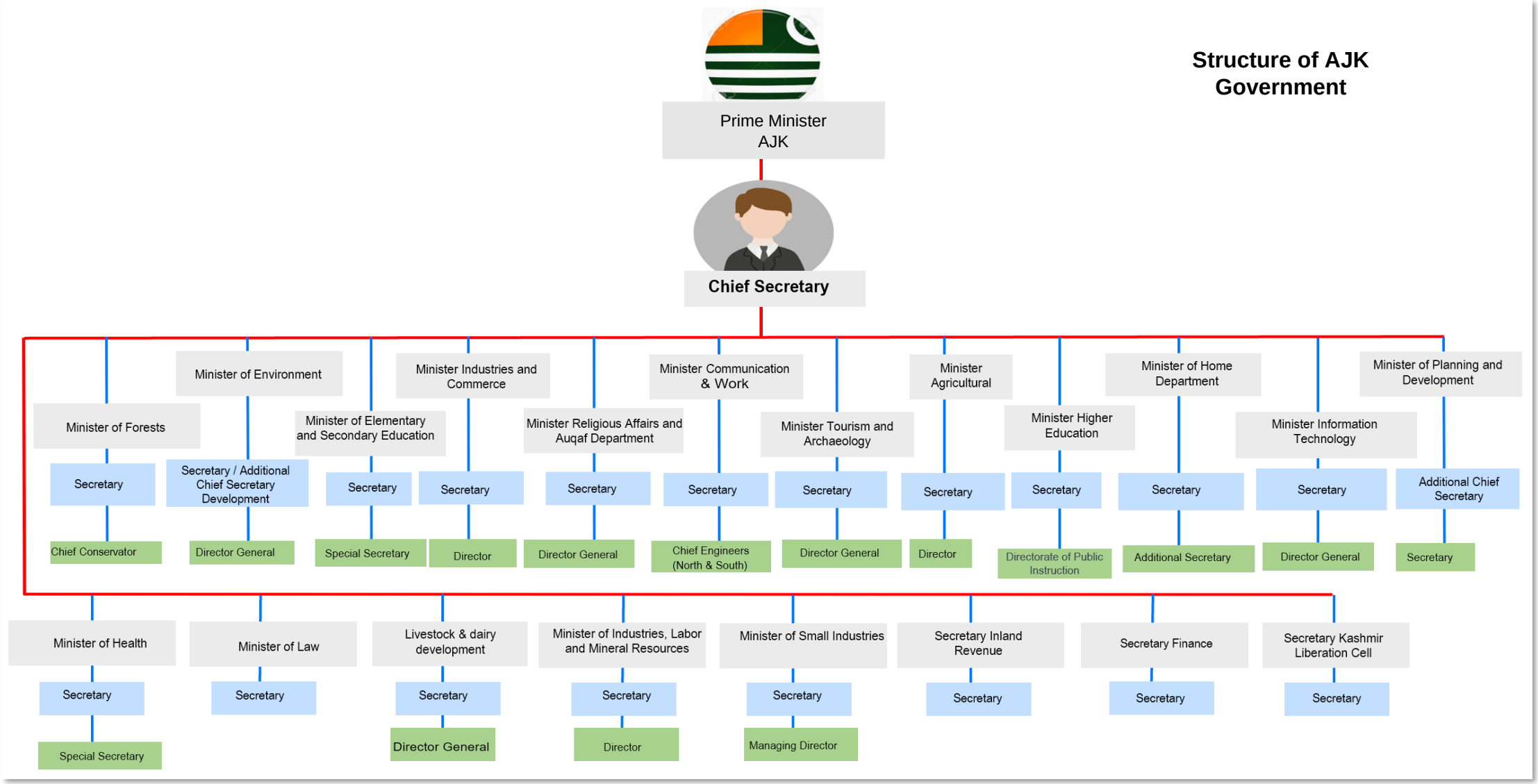


Figure 4 Evolution of the Governance of AJK

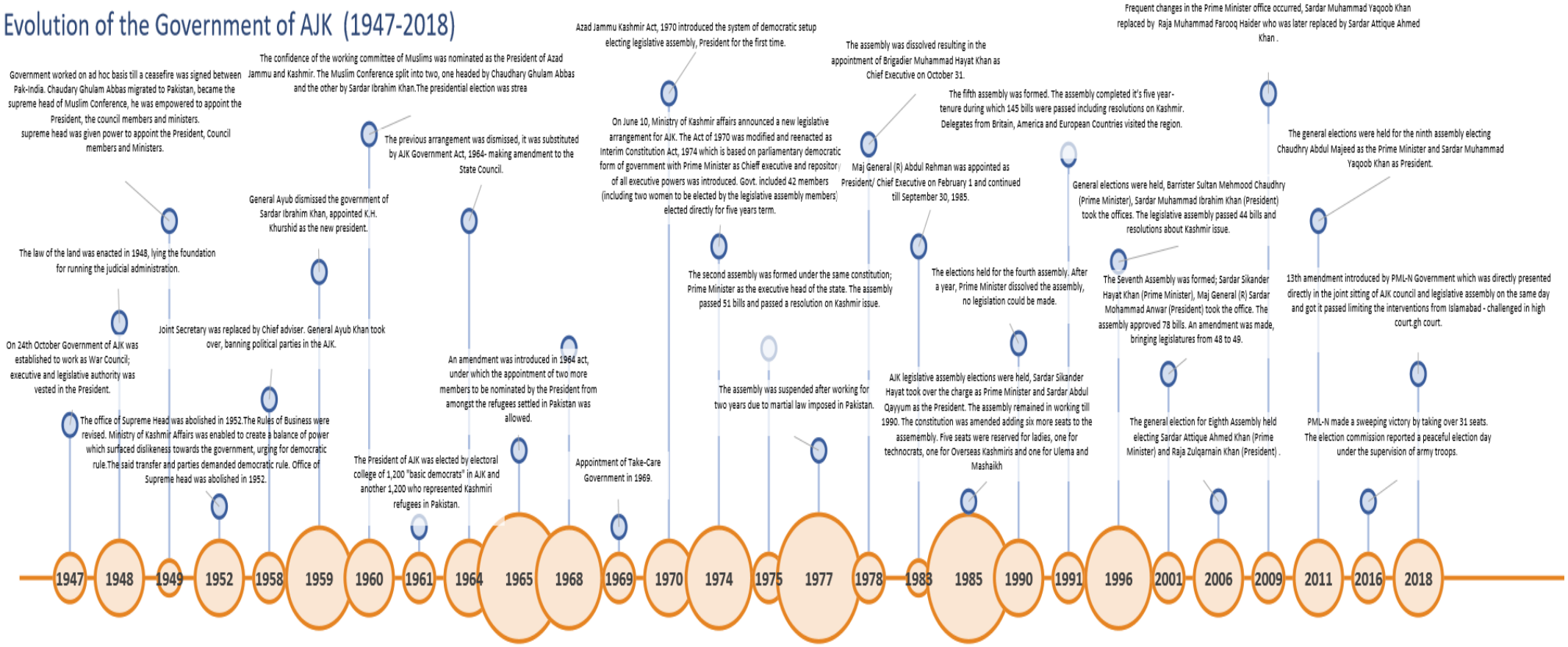


Figure 4 shows the evolution of AJK government since the formation of the state. The timeline shows landmark events in the history which were responsible in shaping the current governance model of AJK. Given AJK's unique position as an autonomous region integrated with Pakistan, it is important to understand how the political and economic governance of AJK has evolved, before rethinking any policy, as all policies are agreed and implemented therein. The Figure 4 is a snapshot of this evolution and to provide a political economy context, a global, regional and national significant events timeline is included as Annex 1.

Box 1 Role of Institutions in Economic Development

Institutions structure the political, economic and social interaction in an economy. These can be through informal channels such as customs and traditions or formal channels such as constitutions and laws. Institutions are significant for the economic growth of a region because they provide the incentive structure that shapes the direction of economic change towards growth, stagnation or decline. Regions have different growth rates because of the different types of economic institutions they possess- "inclusive" or "extractive". Inclusive economic institutions encourage individual vocation choices and economic activities. They provide secure private property rights, an unbiased law system and equal rights and opportunities for citizens. On the other hand, extractive economic institutions extract income and wealth from lower and middle class to benefit the elite class. As a result, regions that have inclusive institutions generate innovation and enjoy greater productivity while those that have extractive institutions lag behind and are trapped in poverty.

Distribution of political authority along with the power of the state determines the type of institution an economy has. If the political authority is narrowly distributed in a region, then its economic institutions are likely to be extractive because the minority elites fear creative destruction. Conversely, if it is widely distributed and the state is centralized, then the economic institutions are likely to be inclusive.[1] In the contemporary world, the meaning of comparative advantage has transformed. According to conventional literature the comparative advantage of advanced countries lies in their capital-intensive goods developed by their highly skilled labor. This theory has been revised as technical knowledge and skilled labor is discovered to be relatively mobile. Hence, according to the new school of thought regions should focus on their immobile advantages; place-based characteristics such as collective knowledge of the society, institutional infrastructure, political system and the like.

After understanding the current model of governance, the role of institutions and the existing need of policy change for industrialization, we now move on to understand how collection, storage, dissemination and use of data for robust policy interventions may lead to industrial development, targeting inclusive growth.

2. Data driving policy making for AJK: the key ingredient in rethinking policy to support an emerging industry

2.1. The need for data and specifically the need for geo-spatial data—evidence-based policy making

The project report defines policy as *"The actions of government and the intentions that determine those actions".* All policy is based on data and analysis and discussion and consensus through legislative approvals. Absence of data is the basis of poor policy; and the following four factors on data and government policy making explain why this is so.

First, the government includes a large machinery and comprises of a number of departments, organizations, agencies and personnel. Unless all of them, or at least a significant majority of them work and take actions in unison and coherence, poor policies are drafted and thereafter, policy objectives are not met. A worse-case scenario, which often emerges, is, different departments working at cross purposes.

Second, the government works at the various tiers (e.g. for AJK, at state, at division, at district, and at city levels)[12] and each tier has its unique dynamics and developmental requirements—good policies are formulated keeping these specific requirements in mind, and, even if they are state wide they require bespoke implementation within the various tiers.

Third, governmental actions have a cost, both financial as well as opportunity cost and both in terms of money and time. We need to ensure that maximum value for money is achieved from the public sector investments. Fourth, all policy implementation requires a robust system of monitoring to ensure that the desired impact can be measured and reported, and information used for any required policy and policy implementation corrections.

Irrespective of which policy we are making, one fundamental feature that can enshrine most if not all of the above features are when we base, calibrate and evolve the policy on high quality geo spatial data.

2.1.1. What is evidence-based policy making

In generic terms *data* is a recording of the events that have happened in the past. An accurate and high-quality recording of data can be an excellent predictor of the future development trajectory. However, what is data in the context of evidence-based policy development? This is a serious and critical element of the evidence-based policy making. An analytical framework of time series, geo-spatial data provides good evidences, as to what has worked in the past and what has not. This evidence forms the basis of policy making i.e. guiding the government towards the goals that can be realistically achieved; the relevant objectives that act as the milestones for the destination towards goal; and, the actions that can be charted to make part of the development policy.

[12] In addition, there are governance structures at Union Council and Village levels as well—though informal.

2.1.2. Data as ‘power’ hindering accurate and timely data gathering

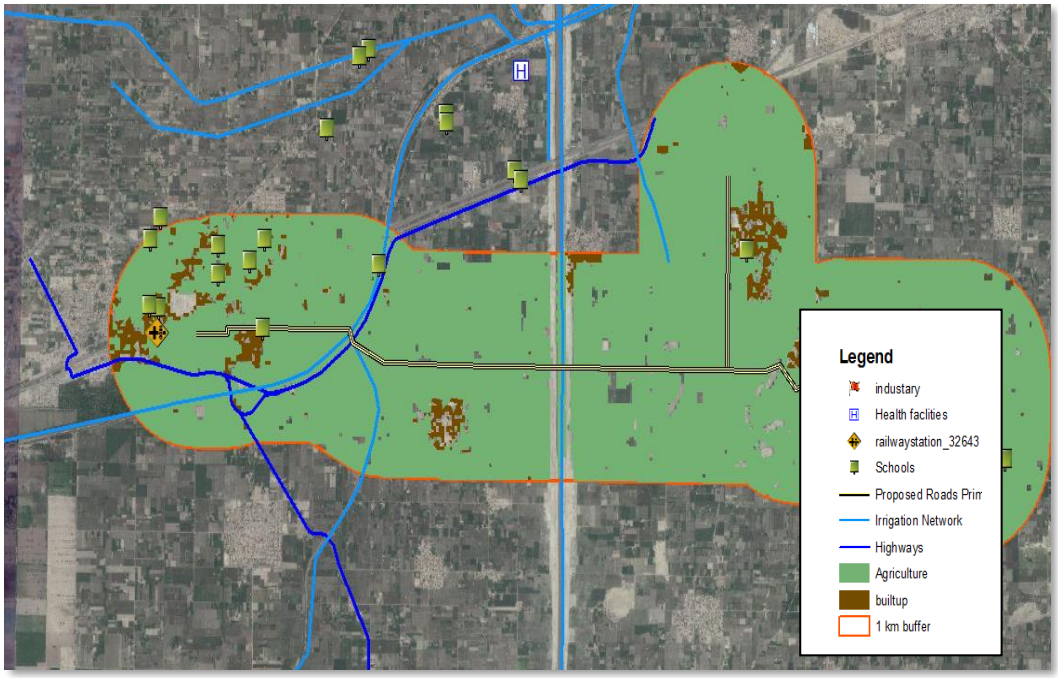
Public sector policies have been based on scant and at times outdated data. The reasons are more of cultural origin and less of technology constraints. Moreover, whatever data we generate, the departments have a tendency to keep it secret, confidential and restricted, often in the name of security, while a more underlying temptation is to keep it as a source of ‘power’, utility and nuisance value. What we need is a paradigm shift from this model to a framework, which is based on data sharing and using it for public policy.

2.1.3. Data Sharing

Data sharing starts with the concept that in the public sector, most of the data sets are the same and can be used by almost all departments. Examples include Maps and boundaries, both administrative and departmental jurisdiction; population census data, geography and climate related data, socio-economic data, road network, railways and other communication infrastructure, etc. The best model is that this data should be generated and created once, and used multiple times by all departments. This shall ensure that the cost of data generation is minimized, and all departments, agencies and organizations are using the same data. In the normal system of government, often times, multiple departments end up investing in data creation and might be using different sources or different versions of the same source, leading to confusion and lack of uniformity.

Public policy must be strongly embedded in ground realities, meaning that all points of economic activity are geographically located in space. This necessitates that all public sector data that is used for policy development should be gathered in spatial form. This format is technically referred to as GIS (Geographical Information System).

Figure 5 Mapping Economic activities around a buffer along a proposed road can optimize investment options.



2.1.4. Data-Driven Industry: The Emerging Science for Robust Policy Decisions

Data is the future. Policies, whether public or private, pertaining to firms, industry or whole economy, requires in depth understanding, visualization and simulations for bringing the best decisions. Data science evolves from collection of data through surveys, compilation of data into different clusters, storage of data with the help of data centers, dissemination of data to the concerned stakeholders and then using the data to find the gaps and filling them. The big data market is expected to reach a global market valued at USD 40 billion by 2023 and is recording an annual average growth rate of 29.7 percent, that is quite exponential. Some examples of how data industry can benefit the public sector of AJK are as follows;

i) **Data sharing and open government**: The free exchange of information from public sector firms to the citizens promotes transparence and trust between government and the citizens.

ii) **Sentimental Analysis**: The information obtained from social media websites such as twitter help the policy makers in prioritizing their services based in the interests and opinions of its citizens.

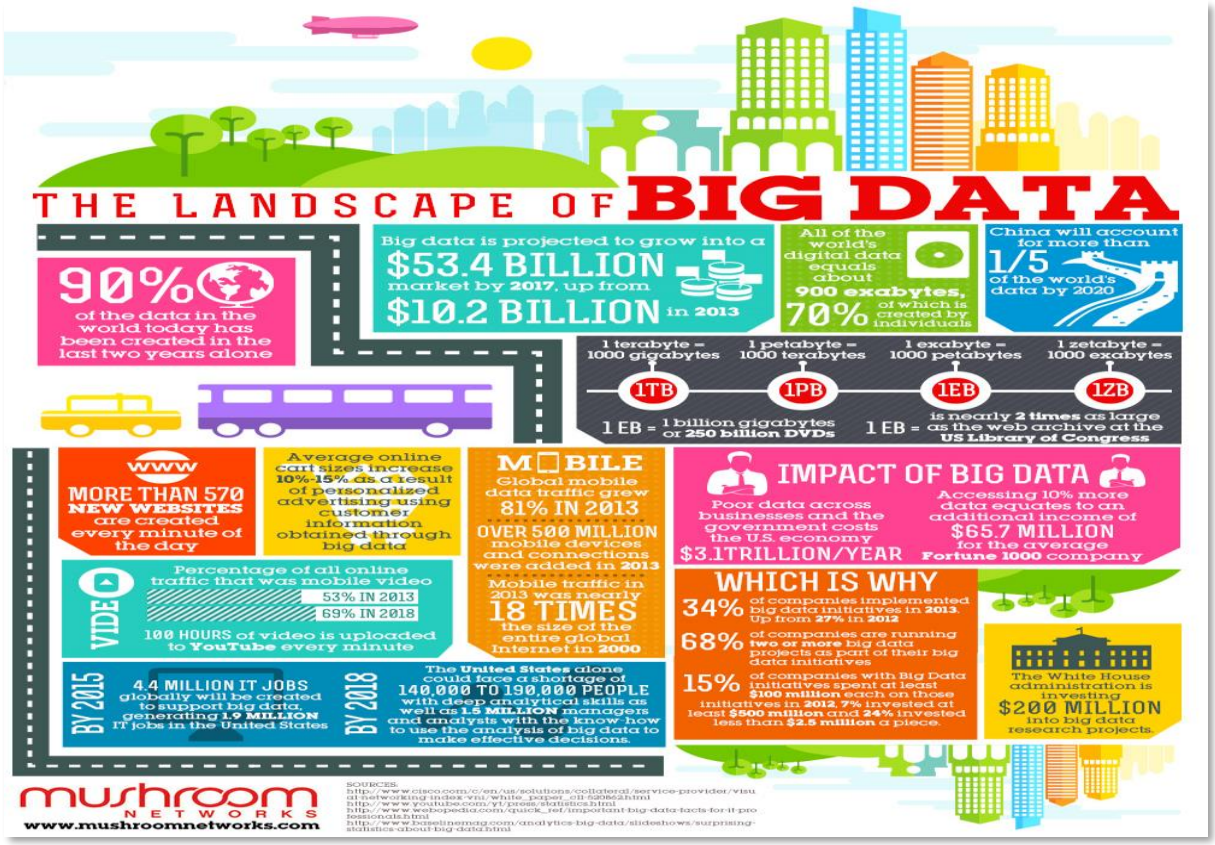
iii) **Personalization and Citizen Segmentation while protecting Privacy:** Tailoring of government services for the citizens can enhance efficiency, effectiveness and satisfaction of citizens.

iv) **Economic Analysis**: Correlation performed through various sources of data help the analysts in accurate financial and economic forecasts and it helps in preparing for any natural or economic calamities.

v) **Internet of Things (IoT):** The government can characterize itself with applications which work on sensor measurements such as pollution, traffic, waste usages, monitoring of public vehicles, abnormal behavior detection and many others. The integration of these high-volume data sets has the potential to greatly improve the urban development and management and positively impacts the quality of life of the people.

Figure 7 shows a graphical representation of how big data is evolving around the world and how much budget is being spent on the big data industry by the public and private sector around the globe.

Figure 6 Evolution of Big Data around the World



2.2. Improving evidence-based policy making in AJK

The team of consultants visited various relevant AJK stakeholders and held discussions with a view to assess the present state of data and especially geo-spatial data availability; and to improve the future direction required to enable evidence-based policy making.

2.2.1. Data needs to be disaggregated

Data needs to be disaggregated in more than one way. Geographical disaggregation is one of the key parameters. In many cases, data is collected at national, regional or district level and presented in summary for the decision makers. However, this average, aggregate or consolidated data is what it is, 'average'. This in many cases, hides the details, and policies based on this kind of data do not address the issues in an equitable fashion at the local level. Public spending on the basis of average or aggregate data without sufficient targeting and bespoke implementation results in inequitable development—a point recently amply demonstrated in a recent Pakistan-wide report on district disparities[13]. As per MICS[14] reports of AJK, most of the indicators have a wide range, above and below the provincial average, reflecting a variation in the quantity and quality of public sector investments in the past. Making policies on the basis of average figures would lead to further inequities. Similarly, socio economic data for males and females varies to significant levels, especially in less developed districts. This double segregation, i.e. based on sex and location, would

[13] In depth analysis was performed in "Strengthening Fiscal Federalism by Eradicating District Disparity: Supporting Economic Corridor through Strategy Planning" an internal report of the ADB that discussed how bespoke interventions are required for each district on the basis of its socio-economic strengths and weaknesses.
[14] Multiple Indicator Cluster Survey

provide much more nuanced data for making equitable policies, that would address the needs of those who are most in need.

2.2.2. Ownership of data

The Planning and Development Department of AJK (PnDAJK) generally is the correct place to house the current data management system, this however, does not mean that it owns and collects the entire data in the data management system. AJK needs to define three levels of data users:

- ***Data Owners:*** Departments & offices that generate a set of data and own it
- ***Data Editors:*** Offices that have the rights to edit and publish edited data
- ***Data Users:*** Offices which can use the data for their departmental purposes but neither own it nor can edit it.

Citizens: A simplified but informative dashboard and portal needs to be developed that the people of AJK and anyone else would be entitled to view—an open source data base. This can also allow for the development of another layer of data created and verified by the people using this data and enhancing its validity. This would enable the government to share its work, policies, programs & projects with the real stakeholders. In addition, this could be used as a powerful tool for participatory planning and decision making. A good example of such an open data portal is the official website of the District of Columbia. https://opendata.dc.gov/. This level of data and that too in the public domain may not be possible in the immediate future, but at least AJK should aim for this kind of level and draw its own boundaries for making data public.

2.2.3. Sharing data

In AJK, data driven governance and policy making would need a large amount of data sharing amongst and within the departments and offices. Every department would need to categorize data into three levels of sharing:

- *Data specific to the department* that shall be within the access-controlled domain. In addition, micro data of any department like salaries of staff and number of students in each class that may not be of any interest to outsiders, except for the education department.

- *Data that can be shared with others*. Data like location and facilities of BHUs or Schools, student teacher ratio, literacy rate, immunization rates, water and sanitation facilities, etc. is data that can be and should be shared within the government.

2.2.4. Data Security

Data security is a serious consideration, especially in the current geo-political environment. The GoAJK needs to develop rules that would guide and educate the officers towards data security. A serious effort at developing manuals and capacity building of data handling staff would minimize the risk of security breach.

2.2.5. Integrating data

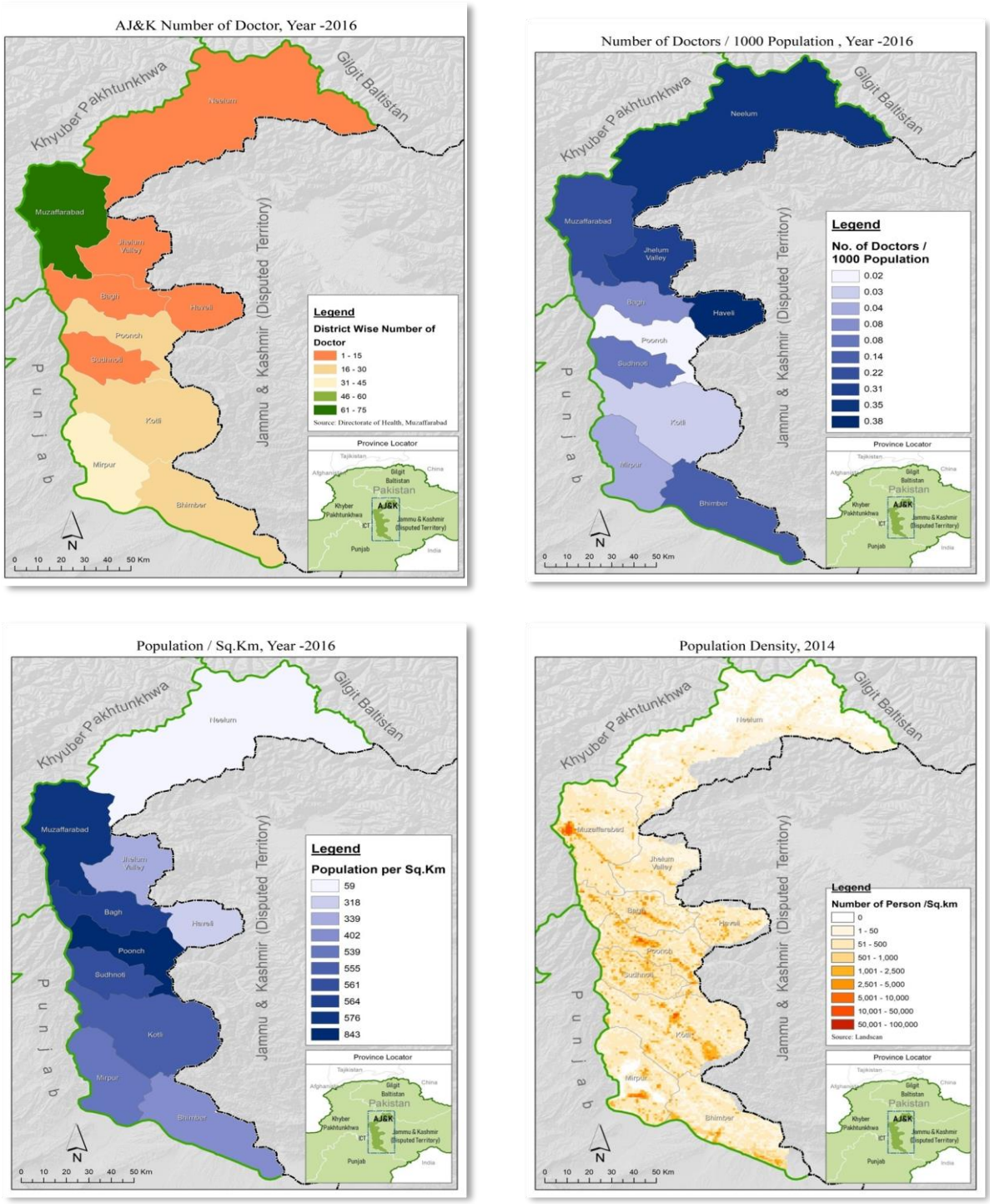
Data integration involves combining data residing in different sources and providing users with a unified view of them. This is a critical reform needed in AJK as the

institutions are presently working in silos. Often one department hardly knows what the other department is doing. The same applies to policy making and policy implementation. GoAJK must emphasize that the value of data is multiplied manifold when it is integrated with other data sets and that is again multiplied when it is geographically viewed and analyzed. The policy making in any one sector can be positively influenced by the micro geographical data from related sectors. Box 2 shows how the power of data integration can work for GoAJK. This in itself will drive a large demand for development of the technology and data industry within AJK.

Box 2 Power of data integration

Almost every government has a strong focus on literacy, education and school enrollments. Made in isolation, policies, programs and projects mostly focus on efforts at enhancing school enrollment and make school administrations responsible. A number of studies in developing countries highlight the one important cause of higher drop out ratio in certain *tehsils* is rampant diarrhea and other illnesses. At a still higher level, the main cause of frequent diarrheal diseases is not just lack of medical facilities, but lack of clean drinking water & sanitation facilities. Thus, with these integrated data analytics available at the time of policy making, the enrollment drive would not just be limited to school education but would involve other departments as well.

Figure 7 Mapping of raw data analytical data and integrating with population density



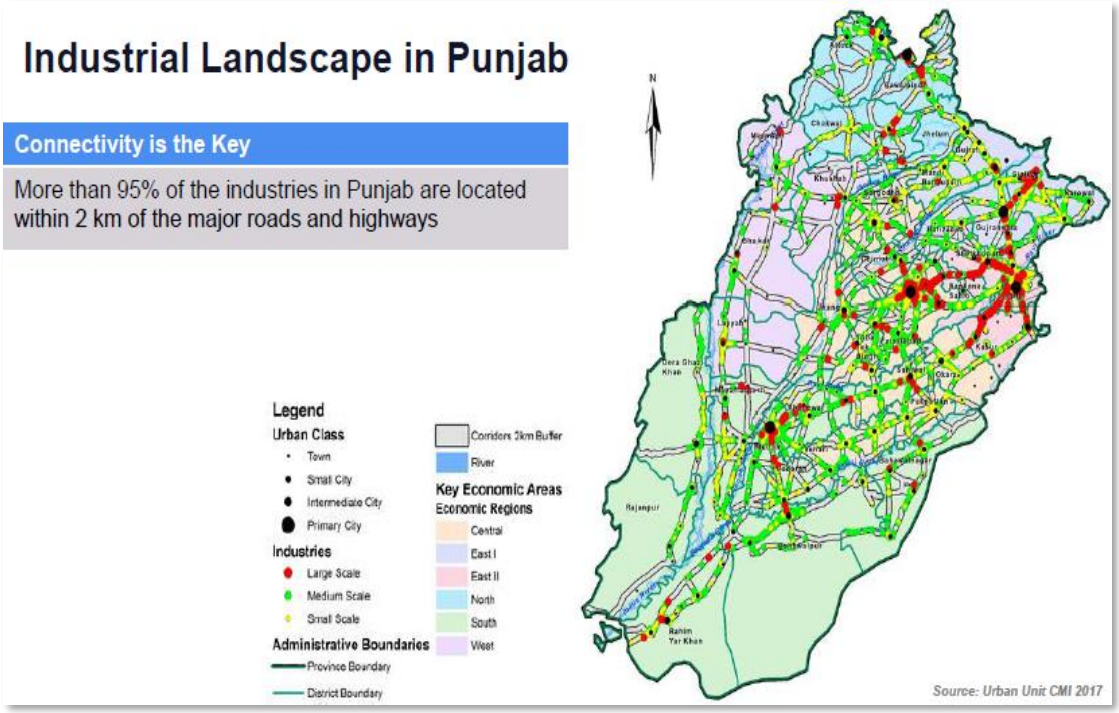
Mapping of raw data analytical data, and integrating with population density, gives a much better picture of the level of development and leads to a more equitable investment p planning.

2.2.6. An example about the role of Spatial Data in Industrial Policy

Industrial development is dependent upon a number of geographically located factors, like availability & cost of land, raw materials, communications network, skilled labor, utilities & markets. Additionally, for every type of industrial unit, these factors vary.

Some industries might need to be placed closer to seaports, while hi tech units like computer assembly plants would prefer to be nearer to airports. In many cases, in the past, industrial estates in the public sector have been developed based on factors, other than high quality, geo-spatial data. The result is that even in Punjab; more than 90 percent of functional industrial units are located outside formal industrial estates[15] and almost 80 percent are located within city limits & within 2 km of the main roads. These figures were collected using geo spatial survey and data analysis, using ArcGIS software. This kind of data should feed into evolution of the direction taken by industrial policy in AJK following on from this present project report. The same kind of detailed data collection of all factors that relate to industrial setup needs to be collected for AJK and a comprehensive census of all existing units done to enable the government to locate and develop more successful estates.

Figure 8 Spatial Mapping of Industries shows the factors that optimize location. Evidence for future Industrial Policy[6]



2.3. Institutional Development for Evidence-Based Policy Making in AJK

The consultants view is that Planning & Development Department of AJK appears to be the most appropriate home for the housing of all spatial and non-spatial data. At the national level, the Bureaus of Statistics is part of Planning, Development and Reforms Division. At the provincial level, it is the PnD departments that house the provincial bureau of statistics. Therefore, the PnD Department should house this system. Currently the GIS center is housed in the Land Use planning section of the PnD and this can be further

[15] PSS working papers 2017

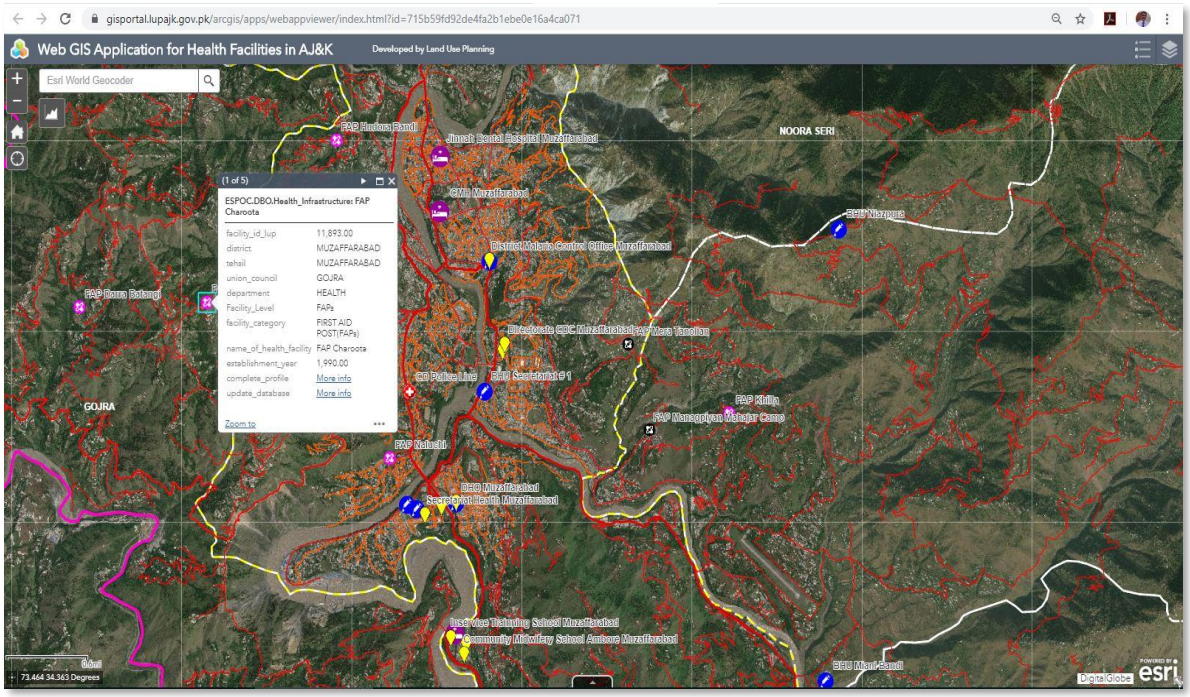
capacitated to develop and house the State level Geo-spatial data, in partnership with the IT Board.

Preparation and dissemination of Geo Spatial data is an IT based subject. The role of IT Board, Government of AJK is critical in maintaining the hardware and keeping the system running. Developing data security protocols, IT policy, data sharing protocols, data dissemination information highways should fall within the domain of the IT Board. A word of caution would however be needed that the leadership of the initiation should remain with the PnDAJK and not be given to IT personnel.

2.4. GIS Center in PnD

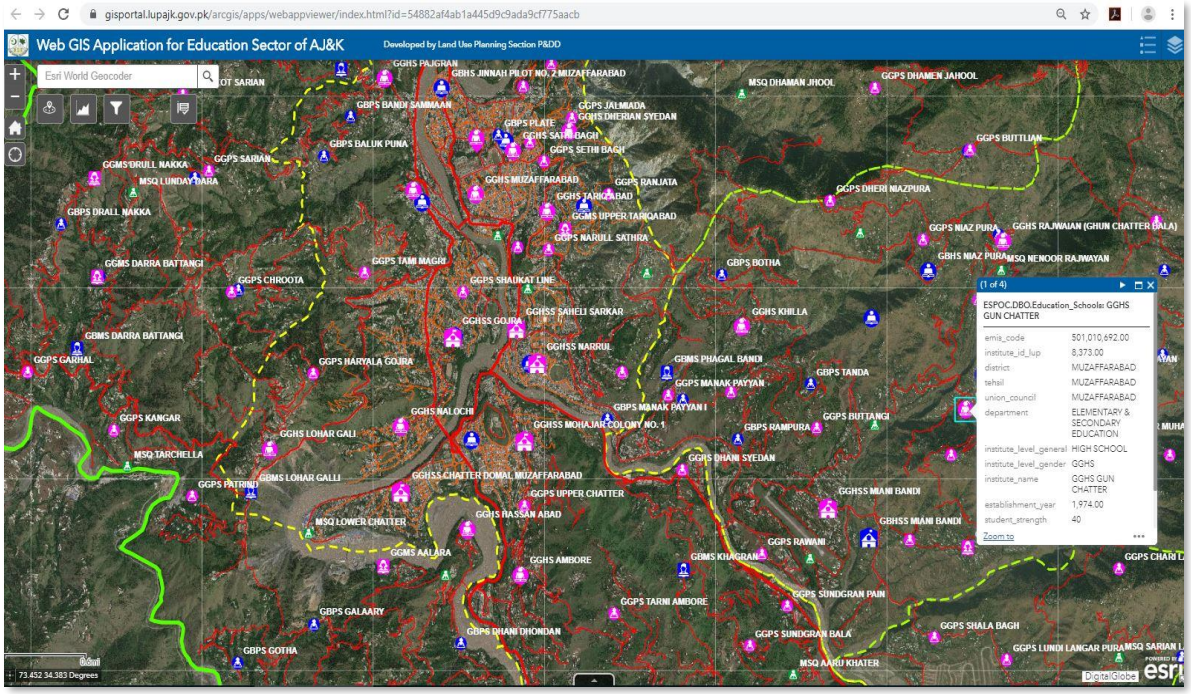
The AJK Government has a decent GIS Center, within the Land Use Development section of the PnD Department. This makes sense. The Land is the canvass over which all infrastructure and economic activities are located. The GIS center has good human resource, trained and motivated, that has been working for a couple of years. The result is that the AJK government departments have available to them good geo-spatial data layers, that they can use for decision making in day to day governance as well as policy making. The Center is using ArcGIS and has reasonably good command over most of the modules. The one area that needs attention is the integration (data integration) of various departmental layers, which are still department / sector based and available only to the concerned department. The consultants recommend a training session by a good team of experts to enable the GIS center to develop live dashboards and decision support systems that are available to the government as a mainstream system. A good example is the ECD- DSS[16] being developed under another ADB sponsored project.

Figure 9 Health department DSS, giving attribute data of each health facility



[16] Economic Corridors Development-Decision Support System

Figure 10 Education department, giving attribute data of each Education facility



2.5. Developing the data industry in AJK

Industry has been redefined in many ways over the past fifty years. Services now form a core part of what was traditionally a ‘widgets’ driven industry. We find the share of traditional industrial production declining around the world simply as the services driving industrial production as a share of the overall industrial production has been rising and is being accounted for under services. The team of consultants sees a great opportunity in developing the data industry in AJK. The many components for approaching this as a policy will be discussed in the closing chapter. Simply summarizing, were AJK to undertake a concerted effort towards evidence-based policy making to streamline and incorporate DRM and climate resilience into its overall economic policy making, this will open up a completely new industry that is germinating and nascent lying idle in the present GIS Center in the Land Use Planning Unit of PnD department

The importance of data in the public service delivery and policy making is not established with facts and figures. Next, we try to use the available data on the socio-economic and infrastructure indicators of AJK to perform economic analysis on the existing economic conditions of each district. The economic analysis can be performed only because the data was collected, stored and disseminated. However, the data still remains greatly limited compared to Pakistan. Therefore, enhanced and improved data collection and compilation is necessary for better economic analysis which lead towards policy making.

3. Understanding the development disparities in AJK

3.1. Traffic Light Classification for Understanding the Socio-Economic Disparities across Districts

To understand the district development through socio economic disparity lens, Traffic Light Classification (TLC) methodology is incorporated. The TLC ranks the eight[17] districts of AJK based on socioeconomic development and disparity, i.e. green, yellow and red; where green depicts developed districts, yellow depicts moderately developed districts and red are the underdeveloped districts. The ranking is carried out by shortlisting 15 most representative variables from multiple sources to minimize measurement bias of any data source.

3.1.1. Estimating Development Disparity amongst Districts within AJK: Data Sources and Variables

The primary source for socio-economic and Water, Sanitation and Hygiene (WASH) indicators is the Multiple Indicators Cluster Survey (MICS) published through UNICEF. MICS survey for AJK was only conducted in 2008 and no later editions were published afterwards. As no other survey has ranked the socio-economic and infrastructure related indicators for AJK, this study resorted to using the only available MICS data for 2008. The data from AJK Statistical Yearbook is annually published by the Planning and Development Department, AJK at district level since 2017. The most recent data available is for the year 2018 and the same is used in this study. Only Roads Density indicator was used from this source for estimating the TLC. The TLC analysis does not include Haveli and Jhelum Valley because these districts were part of District Bagh and Muzaffarabad respectively when MICS was conducted in 2008. After running holistic principle component analysis (PCA) for maximum number of unrelated variables available through MICS, the following 13 indicators were able to explain maximum variance across districts and hence, they were used in the final estimation of TLC.

(a) Stunted Height,
(b) Stunted Weight,
(c) Adult Literacy Rate
(d) Gender Parity index for Primary Schools
(e) Gender Parity index for Middle Schools
(f) Net Primary Enrollment Rate, Gross
(g) Primary Enrollment Rate
(h) Child Immunization rate
(i) Proper Toilet Facilities
(j) Improved Drinking Water
(k) Non-Solid Fuel Use
(l) Iodized Salt Consumption
(m) Pre-Natal Care.

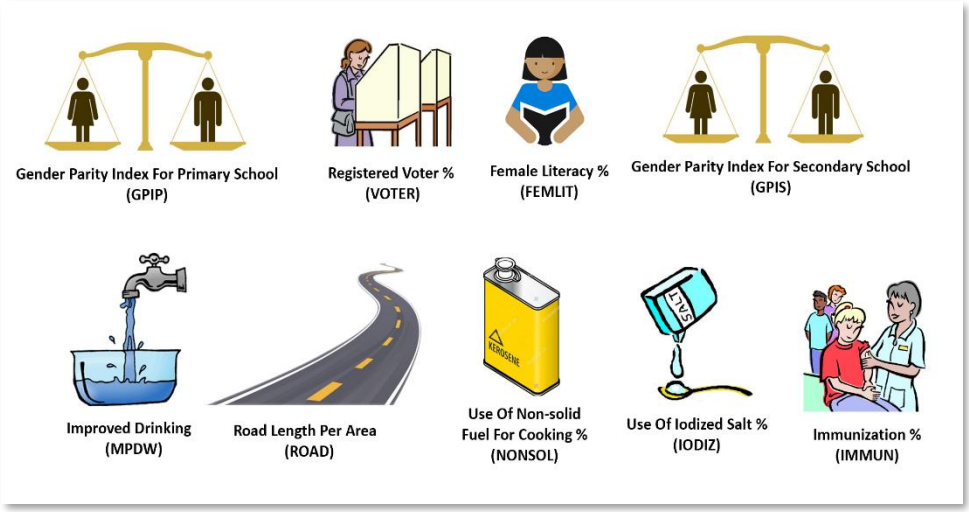
[17] Eight and not the present ten districts were chosen as at the time of MICS Survey 2008, AJK comprised of eight districts and in the later years, Haveli and Jhelum Valley districts were formed out of districts Bagh and Muzaffarabad

3.1.2. Estimating AJK's Overall Development Disparity with District Development Disparity in Pakistan: Data Sources and Variables

After comparison of development disparity within AJK, this study also performs another iteration of estimating how far AJK is as a single unit in terms of socio-economic conditions from the rest of Pakistan. This was performed by taking the average of all eight AJK districts and plugging the average as single value for the whole of AJK. The analysis was performed by adding 111 districts of all four provinces of Pakistan i.e. Baluchistan, Sindh, Punjab and KPK and the 112th district in the estimation was AJK.

The following nine variables were used to estimate the TLC for AJK as a whole, based on the availability of data and highly correlated variables for all of Pakistan and AJK. The data sources for AJK remained the same i.e. MICS and Statistical Yearbook while for Pakistan, data was obtained from Pakistan Social and Living Measurement Survey (PSLM) 2014-15, Provincial Development Statistics (PDS) 2017 and MICS (for each province).

Figure 11 Variables used for TLC in Comparison with Pakistan



3.2. Methodology and PCA

TLC has been estimated through Principle Component Analysis (PCA) by using the first three principal components as they explain about 76 percent in case of comparison with Pakistan as shown in the Figure 2 and almost 87 percent of the variation across districts in case of within district disparities as shown in Figure 3. Index is created by allocating weights to these principal components based on their explanation. The final index is calculated by multiplying the actual value of each indicator for a given district by the respective weight of that variable and adding this value for all indicators for a given district.

The relative weight of each indicator to calculate the final index is calculated by Eq. (1) below:

$$W\_v=(〖Cv〗\_i\times\lambda\_i)+(〖Cv〗\_(i+1)\times\lambda\_(i+1))+\cdots+(〖Cv〗\_n\times\lambda\_n) \quad \text{..... Eq. 1}$$

Where:

〖Cv〗_i : Contribution of variable v to dimension i;

λ_i : Eigenvalue of dimension i; and

n : Upper bound for dimensions to consider

Figure 12 Contribution by Each Component in Explaining Variance (Comparison with Pakistan)

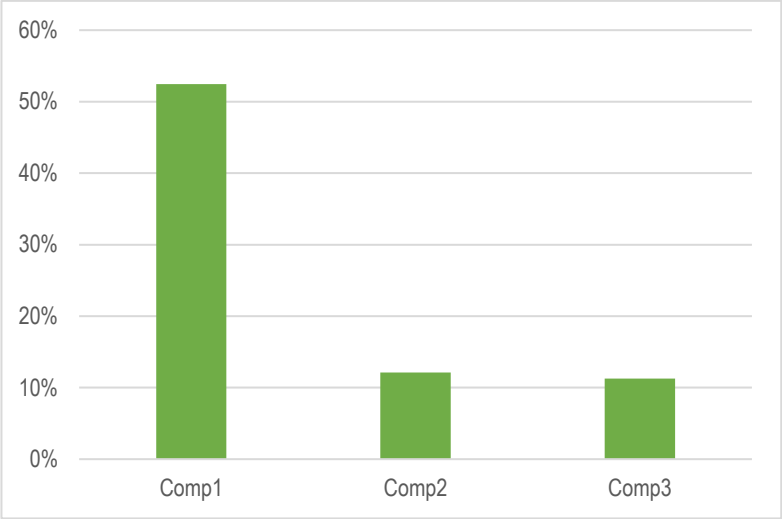
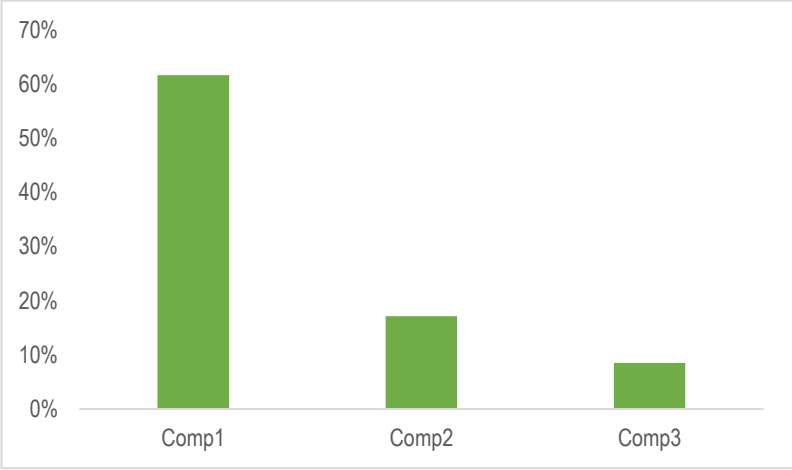


Figure 13 Contribution by Each Component in Explaining Variance (Within AJK TLC)

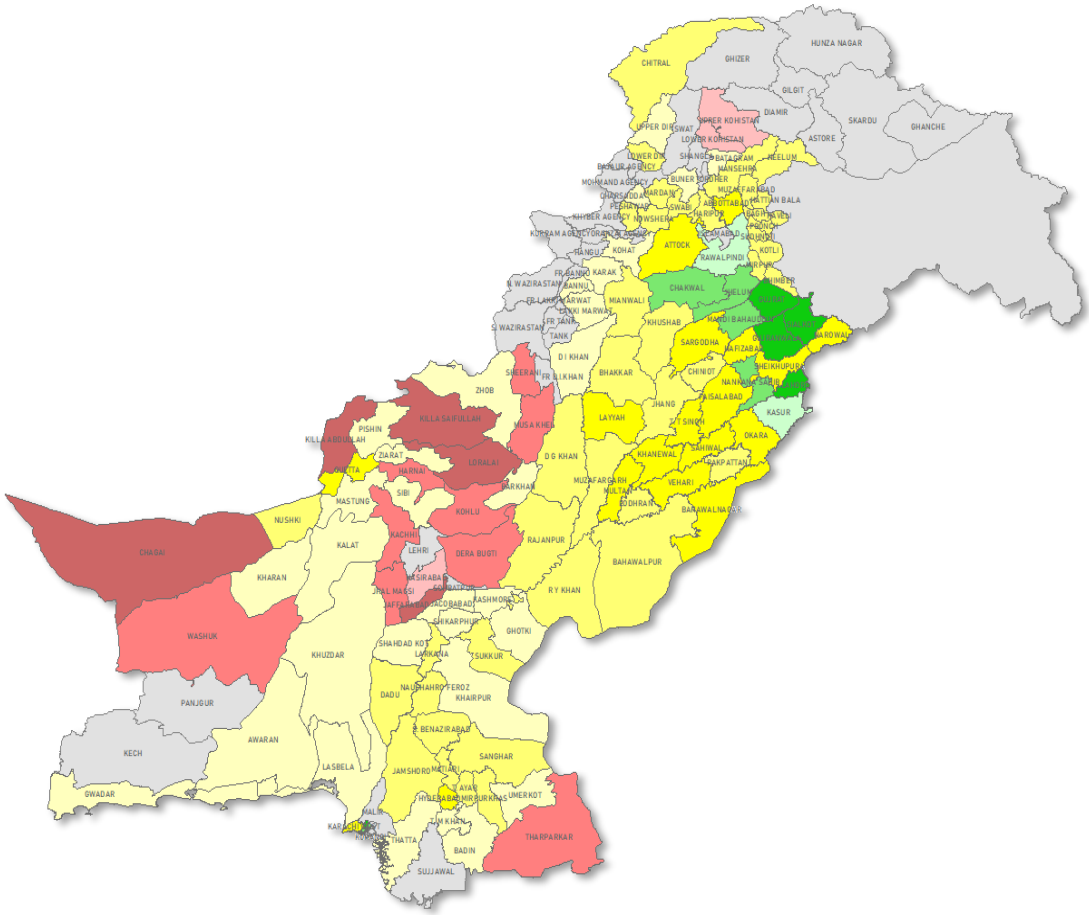


3.3. Districts Ranking through Normalized Standard Indexation: Comparing AJK with Pakistan

To rank AJK as a separate unit in comparison with socio-economic conditions of Pakistan, PCA was performed for obtaining ranking of districts. Next, data normalization was performed to generate district ranking based on the standard indexation of the data. A 'min – max' approach has been used which transforms the data to a standard distribution curve using mean and standard deviation (S.D.) as indicative parameters. The equation used for normalization is shown below.

$$Actual\ Value - Minimum$$

Figure 15 Traffic Light Classification-Comparison of AJK with Pakistan

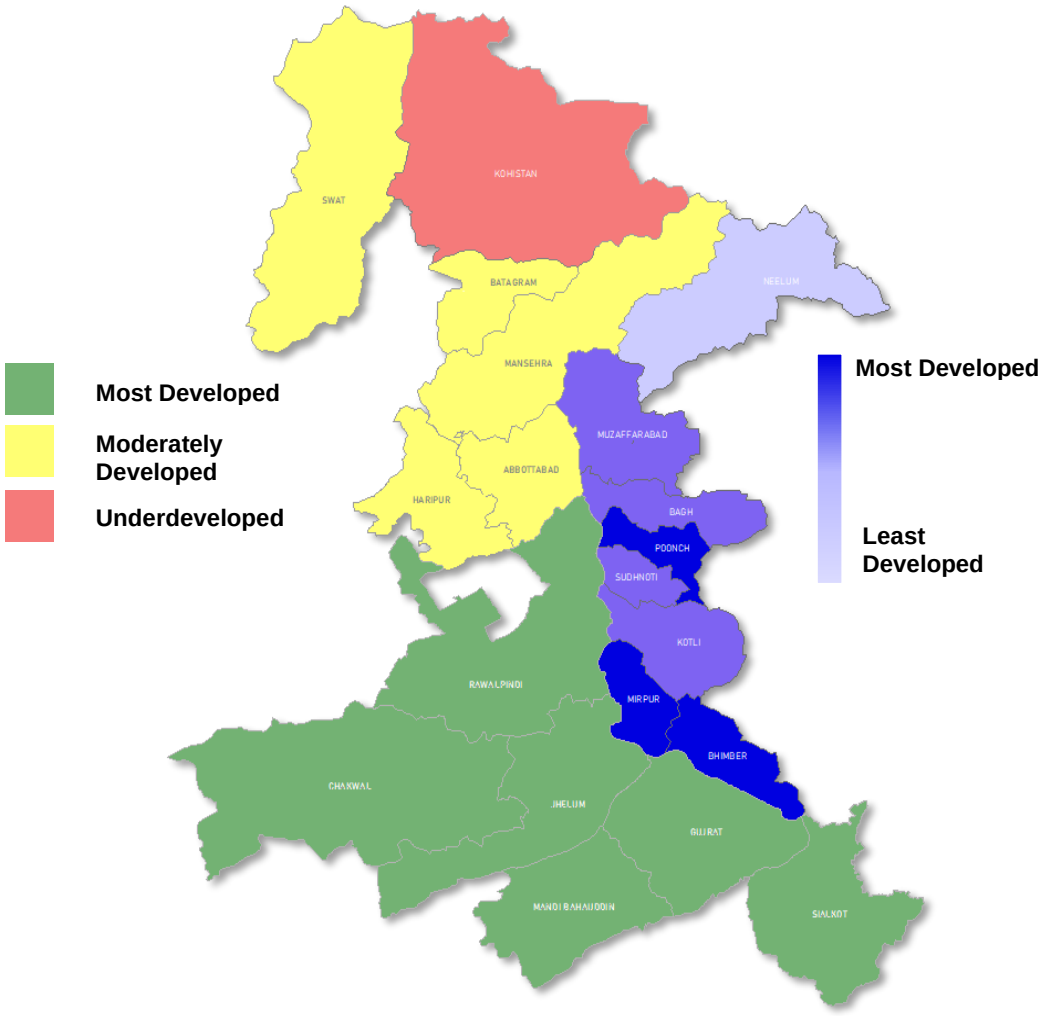


3.4. Ranking the AJK Districts Based on Their Development Disparity

The TLC ranking of eight districts of AJK has also been performed using PCA analysis. However, due to very small sample size, ranking through standard indexation (i.e. using red, yellow, and green district approach) was not the most robust methodology. Therefore, the results are based on highest to lowest ranking obtained through the PCA analysis of 15 aforementioned variables. The TLC ranking as a Choropleth of AJK's eight districts is shown separately in Figure 6. The results show that Mirpur is the most developed district of AJK followed by Bhimber and Poonch. On the flip side, Neelum is the least developed district followed by Muzaffarabad. Sudhanoti, Kotli and Bagh lie in between the most and least developed districts. The results are ironic in a sense that Muzaffarabad, the capital city of AJK is at the bottom of the development ranking.

It is pertinent to note here that Muzaffarabad may be more developed in terms of infrastructure and connectivity when compared with other districts of AJK, however, as this study has only used one indicator of infrastructure i.e. roads density, the development pattern of AJK seems an anomaly. Further, other districts of AJK which might be lacking in infrastructure and connectivity are still ahead in terms of education, health and water and sanitation standards. All AJK districts are bordering developed (green) or moderately developed (yellow) districts, and none border any underdeveloped/lagging (red) district. This bodes well for the development uptake potential for AJK.

Figure 16 TLC Ranking of AJK Districts



3.5. Economic Endowment Assessment and Fragility Index

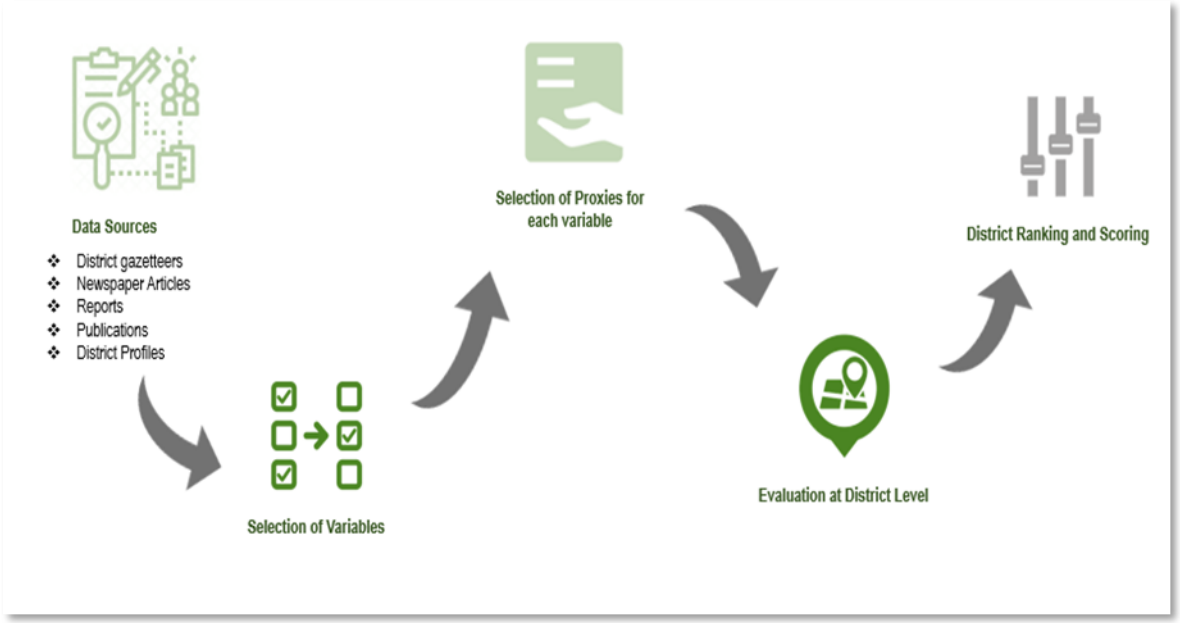
To deepen the understanding of the development disparity, next, is to evaluate the strengths and weaknesses of AJK districts based on the economic endowments and the security and justice parameters. Therefore, two indices have been analyzed as following, a) Economic Endowment Index—assessment of the natural endowments and resources, and b) Fragility Index—assessment of volatility and law and order situation

3.5.1. Methodology for Economic Endowment and Fragility Assessment

The methodology for developing the indices has been summarized in the figure below. The biggest hurdle for this phase is the data acquisition for all the various indicators for economic endowments, social capital and fragility analysis as limited data exists publicly at district level. Based on data availability, the variables for each assessment are shortlisted, and their respective proxy indicators are selected. In the next stage, Principal Component Analysis (PCA) is performed to generate district ranking through indexation approach. The indicators scoring *Eigen value* greater than 1 are used for

the indexation and ranking. District index is generated by evaluating each indicator against their respective weightage for each district.

Figure 17 Methodology for evaluating the Economic Endowment, Social Capital and Fragility Indices for districts



3.5.2. Selection of Variables

The economic endowment index has been generated using six indicators originating from different sources in order to minimize data biases and to explore various aspects of natural endowment of districts. To standardize, all six indicators have been normalized per unit area. In order to assess all indicators on a homogenous scale of measurement, logarithmic values have been used for generating the indices. The indicators for economic endowment are discussed in the section and figure below.

a) **Total Cultivated Area**: The data for total cultivated area has been obtained from AJK Statistical Yearbook for the year 2018. The data of total arable land is not available at district level, hence cultivated area has been used as an indicator for agricultural endowment.

b) **Discovered and Estimated Mineral Reserves**: The data has been taken from various reports of Geological Survey of Pakistan published for various years. The data includes all discovered reserves with an approximate estimate of quantity of reserves. The data include all types of natural minerals ranging from gold, silver, coal and many others.

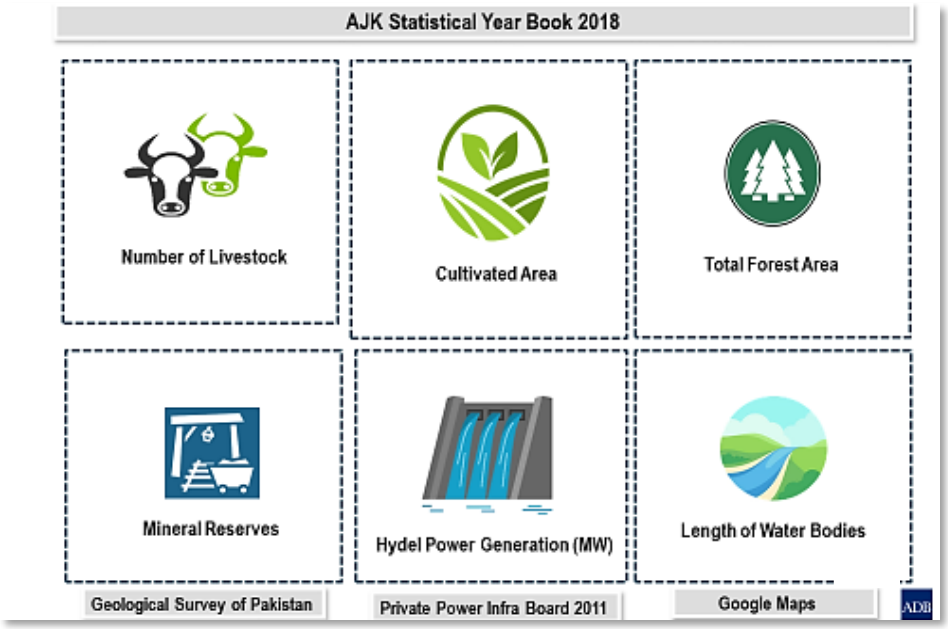
c) **Total Livestock**: Livestock population is also a natural endowment and some districts are highly enriched in the livestock population. The data is acquired from AJK Statistical Yearbook 2018.

d) **Total Forest Area**: Forestry is also one of the natural endowments as different types of wood obtained from forests have high market value in the local and global markets. This data is taken from AJK Statistical Yearbook 2018 and is reported in million acres. The indicator has been normalized on a logarithmic scale.

e) **Length of Waterbodies**: This indicator includes all types of waterbodies such as rivers, lakes and canals crossing from the districts in kilometers. The length was digitally calculated for each district through Google Maps. Availability of water is a major endowment as it depicts the regional economic activity such as through irrigation and hydropower generation.

f) **Potential of Hydro Power Generation**: This indicator indicates the existing as well potential of hydro power generation in AJK. The data is obtained from Private Power and Infrastructure Board (PPIB) report of 2011. The water resources of AJK enable it to become a major producer of hydro power generation for own consumption as well selling it to Pakistan.

Figure 18 Variables and their Sources for Economic Endowment Index

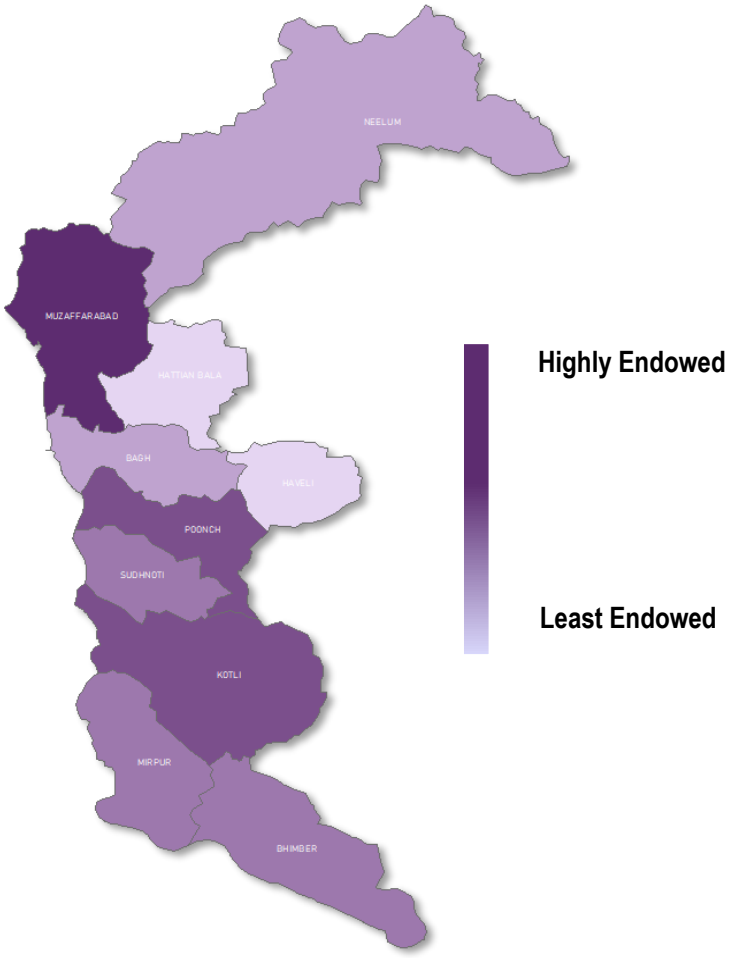


3.5.3. Mapping of Economic Endowment of AJK Districts

The results of ranking of AJK districts based on their economic endowments per square km is shown in Figure 8. The results show that Muzaffarabad is the most endowed district followed by Kotli and Poonch. On the flip side, Jhelum Valley and Haveli are the least endowed districts respectively. The primary factors behind high endowment ranking of Muzaffarabad are the huge 3361 Mega Watt potential of hydro power production and over 13 million tons of mineral resources. It is also interesting to note that Muzaffarabad was found to be second least developed district in TLC ranking. Thus, there exits significant potential of exploiting the economic endowments of Muzaffarabad. Similarly, Mirpur and Bhimber, the two highly developed districts of AJK are found to be only moderately endowed. This implies that these two districts were able to enhance their socio-economic status without much natural resources and a plausible factor might be large number of diasporas hailing from Mirpur[19] and sending significant amount of remittances back home.

[19] There are more than 600,000 Kashmiris living in the United Kingdom, mostly hailing from Mirpur, https://www.telegraph.co.uk/news/worldnews/asia/india/1396685/Britons-send-5m-to-Kashmir-terrorists.html

Figure 19 Economic Endowment Ranking as per square km of AJK Districts

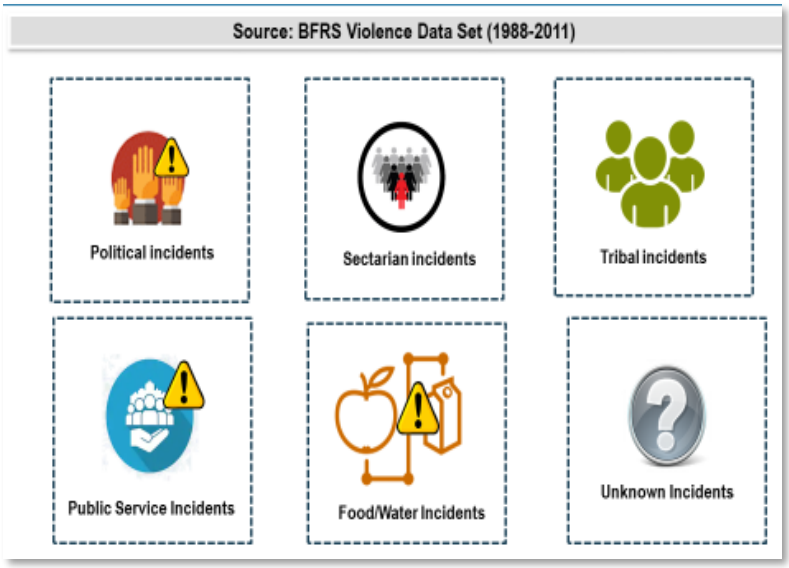


3.6. Fragility Index- Data Source and Variables

The underdevelopment of economically endowed district is supported by the phenomenon of 'resource being a curse' which argues that resource rich areas remain poor and underdeveloped because of the poor law and order situation, endless communal and ethnic violence and even conflict. Therefore, to understand the security and justice snapshot of districts, a Fragility Index has been generated.

The data for generating Fragility Index has been obtained from BFRS Political Violence Data set for Pakistan published from Princeton University data repository for eight districts of Pakistan. The index is created by using six indicators i.e. terrorism activities, political violence, economic violence, public service delivery, sectarian incidents and unknown incidents in each district for the years 1988 through 2011 as shown in Figure 9. The fragility index is estimated as violence per capita so that the bias of population is controlled for.

Figure 20 Selected Variables for Fragility Index Assessment



3.6.1. Ranking of Fragility Index for AJK Districts

The result of Fragility Index is shown in Figure 21. The results show that Poonch is the most fragile district with highest rate of violence followed by Sudhanoti and Neelum. Whereas, Muzaffarabad is the least fragile district followed by Kotli and Bhimber. Further, from all the indicators, the highest number of incidents were recorded in political incidents and very few incidents were reported in other types of incidents. Neelum, Mirpur and Bagh are moderately fragile districts with nominal number of incidents, mainly political. Due to the fact that the majority of fragility was reported under the heading of political incidents, a separate chart is also created to show the total number of political incidents in each respective district. Figure 22 shows that about 200 political incidents were recorded in Muzaffarabad in the overall period of 1988-2011. Moreover, Kotli and Poonch also recorded 181 and 112 political incidents during the time period. However, Sudhanoti and Mirpur remained very peaceful in terms of political violence and only 1 political incident was reported in Sudhanoti and only 10 incidents were reported in Mirpur in 14 years. It is noted that absence of reporting could be a reason for bias in this data and its interpretation.

Figure 21 Fragility Index Ranking for AJK districts

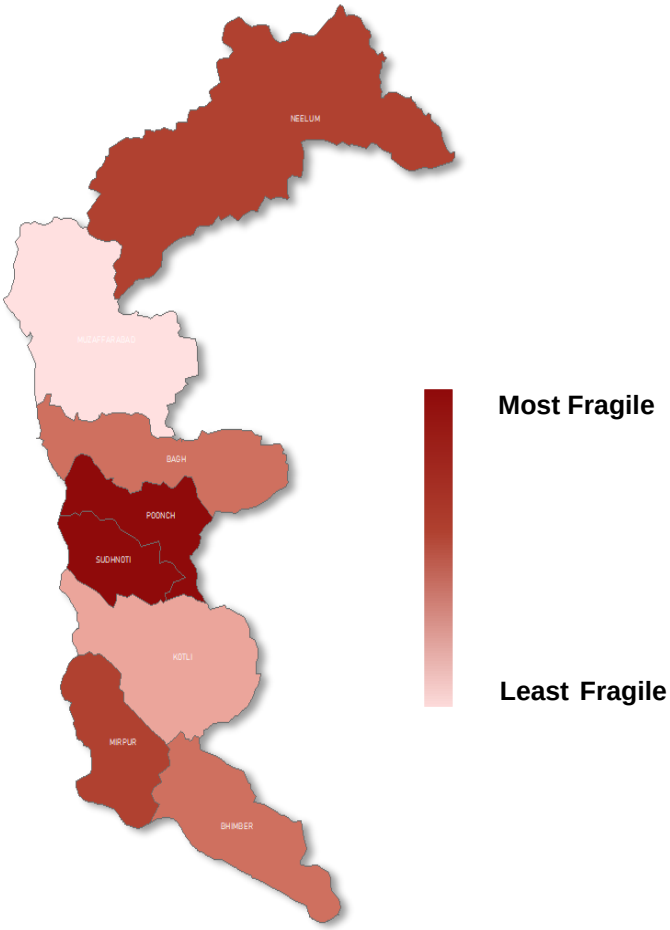
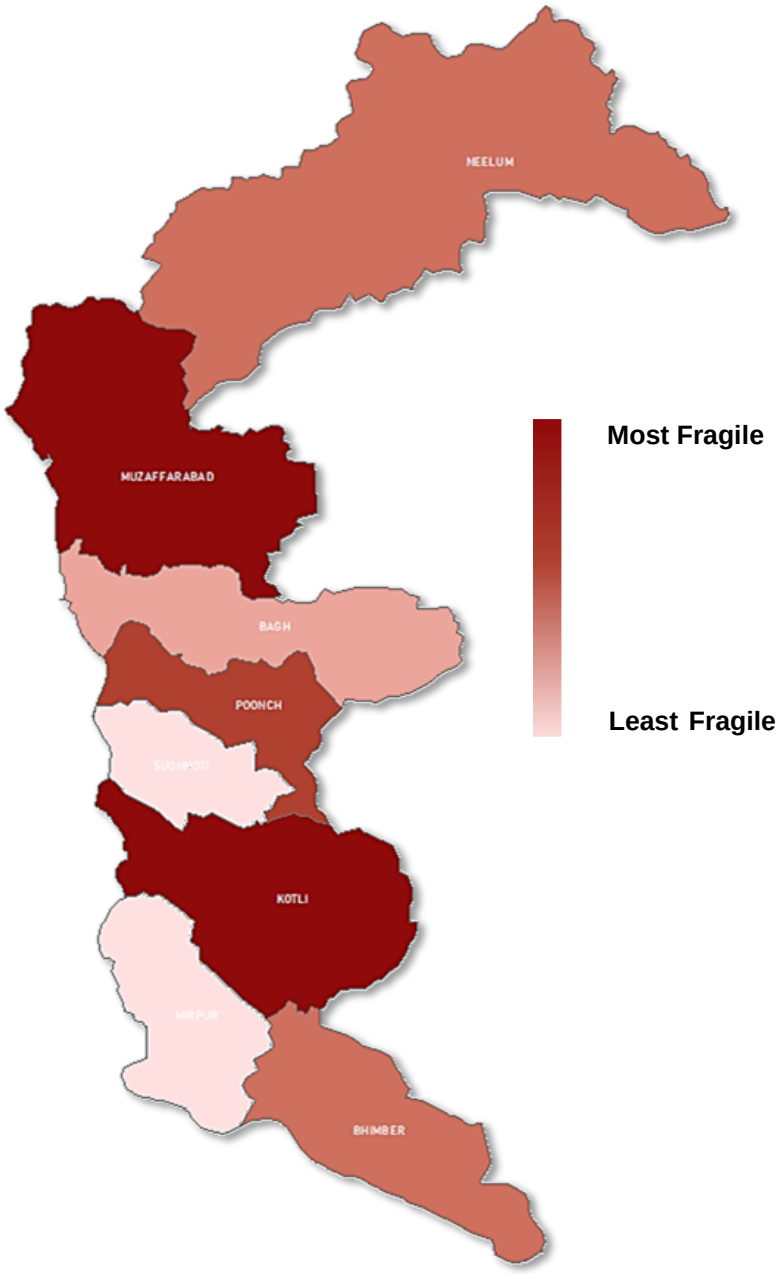


Figure 22 Total no. of Political Incidents in AJK (1988-2011)



3.7. Analysis of Fiscal Spending in Education Sector of AJK

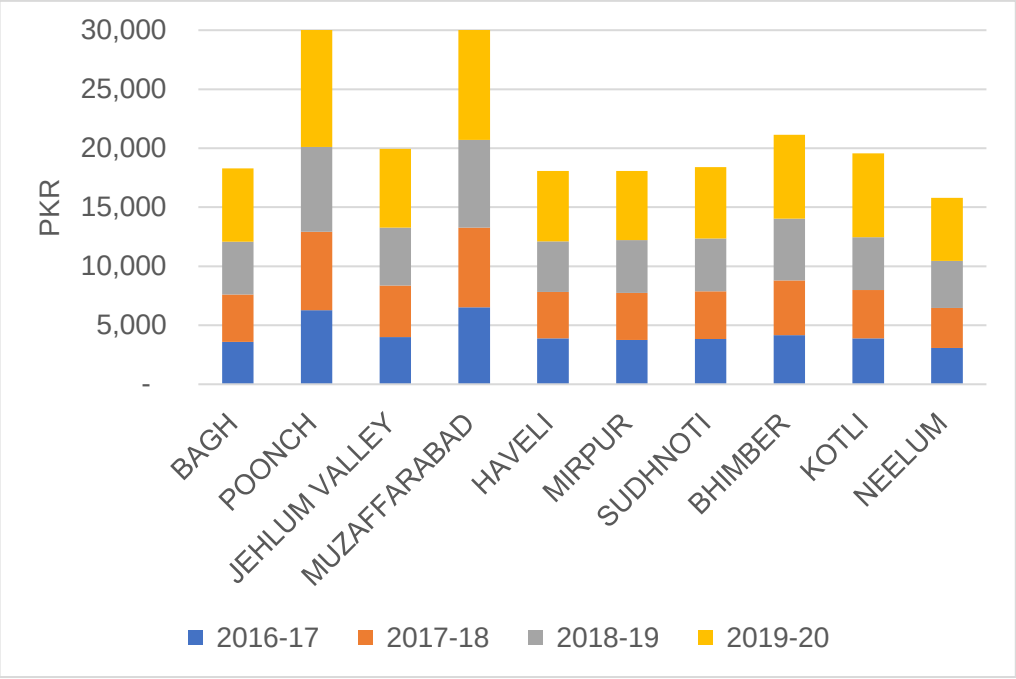
The socio-economic development of any region is not completely possible without uplifting the education standards in the region. The PCA clearly showed how 5 out of the 13 indicators were related to education implying that education explained disparity substantially. The development of education sector is not entirely possible without efficient public spending in primary, secondary and tertiary education that includes but is not limited to construction of schools and colleges, training of teachers, provision of scholarship and student loans, water and sanitation facilities at public educational institutions and many others. To analyze the current fiscal spending of AJK in education sector, this report analyzes the current and development spending on schools and colleges by the government at district level. Current expenditures mainly include salary and other

administrative expenditures while development expenditures include construction of new buildings, new furniture, building of toilets, and so on. The major aim of the report was to estimate the fiscal efficiency ranking of districts, however, due to unavailability of latest education output indicators such as enrollment rate, such analysis could not be performed during this analysis.

3.7.1. Fiscal Expenditures on Primary Education (Current & Development)

The fiscal expenditures on primary education are subdivided into current expenditures and development expenditures. The details of current expenditure from 2016-17 till 2019-20 is shown in Figure 22. The figure shows that the highest per capita current expenditures are allocated to Muzaffarabad and Poonch equaling to about PKR 10,000 per capita annually while least is allocated to Neelum equaling to PKR 5,348 per capita annually. The data shows that the expenditure remains uneven over the past four years. If Muzaffarabad and Poonch are separated, the average annual spending of all other districts remains in between PKR 5000 and 6000 per capita in 2019. However, interesting aspect is that Muzaffarabad even with highest per capita spending on current primary education, lags way behind in socio-economic ranking compared with other districts. Another interesting anomaly is that Muzaffarabad receives twice as much as Neelum but still Muzaffarabad is second least developed district in AJK while Neelum is the least developed one. This gives a hint about possible inefficiency in spending in the capital city of AJK.

Figure 23 District level Per Capita Current Expenditures on Primary Education

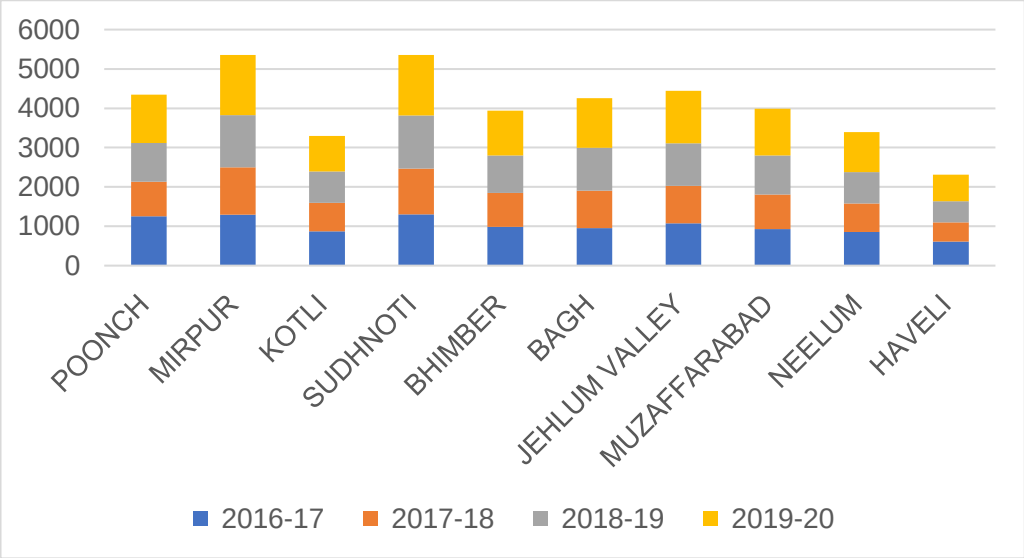


Source: Ministry of Planning & Development, Government of AJK

Next, Figure 25 shows the per capita development expenditures on primary education at a district level in AJK. The data shows different prioritization as compared to current expenditures. The data shows that Muzaffarabad, Sudhanoti and Mirpur spent highest in terms of development expenditure at about PKR 490, PKR 330 and PKR 329 per

capita, respectively in 2018. An important finding from this analysis is that the development expenditures on primary education is 8.5 times lesser than current expenditures. In other words, out of total public expenditures on primary education in AJK, about 80 percent is spent on current expenditures—indicating education sector is spending a lot on salaries. Given the overall scenario in AJK indicating that government is by and large the top employer in terms of numbers, this is not surprising, but can be alarming. There is a need to understand the structure of the recurrent expenditure better and if this is a negative or a positive indicator. Moreover, the most developed district of AJK, i.e. Mirpur was spending about 100 percent more on development expenditures of primary education compared with Neelum, Haveli and Bagh. The prioritization of development expenditures in Mirpur may be one of the factors explaining its higher socio-economic ranking.

Figure 24 District Level Per Capita Development Expenditures on Primary Education

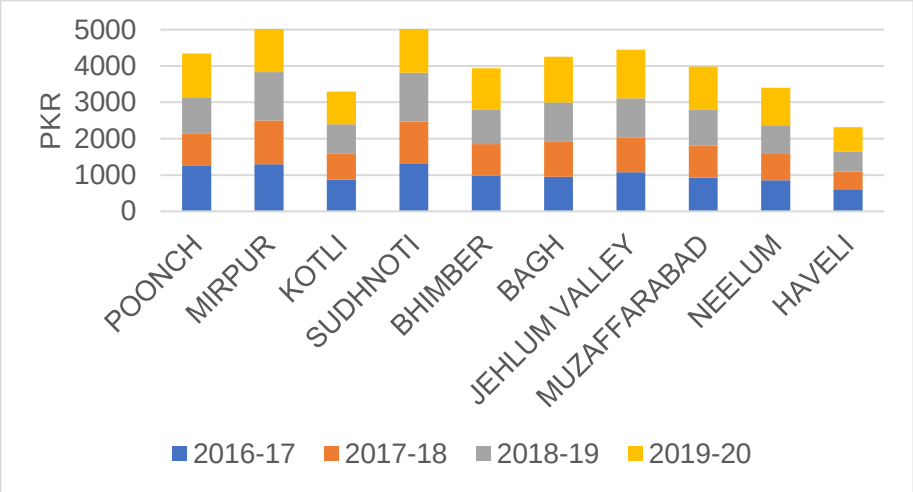


Source: Ministry of Planning & Development, Government of AJK

3.7.2. Fiscal Expenditures on Secondary Education (Current & Development)

Next, a simple analysis of AJK government's per capita current expenditures on secondary education is performed as shown. A reversal is quite visible when current fiscal expenditures for primary education are compared with secondary education. Here, Mirpur and Sudhanoti are the districts with highest per capita spending whereas, they spend significantly lower in primary sector. Further, the inter-district dispersion is significantly high as Sudhanoti spent PKR 1,346 per capita while Haveli spent PKR 673 in 2018. However, the important aspect here is that the fiscal expenditure on secondary education is about 10 times lower than primary education. This could reflect that the demand of primary education may be higher than the secondary education or AJK government might have prioritized primary education over secondary education. However, this can be further investigated in the next round of study as this study is only focused on pointing out the grey areas.

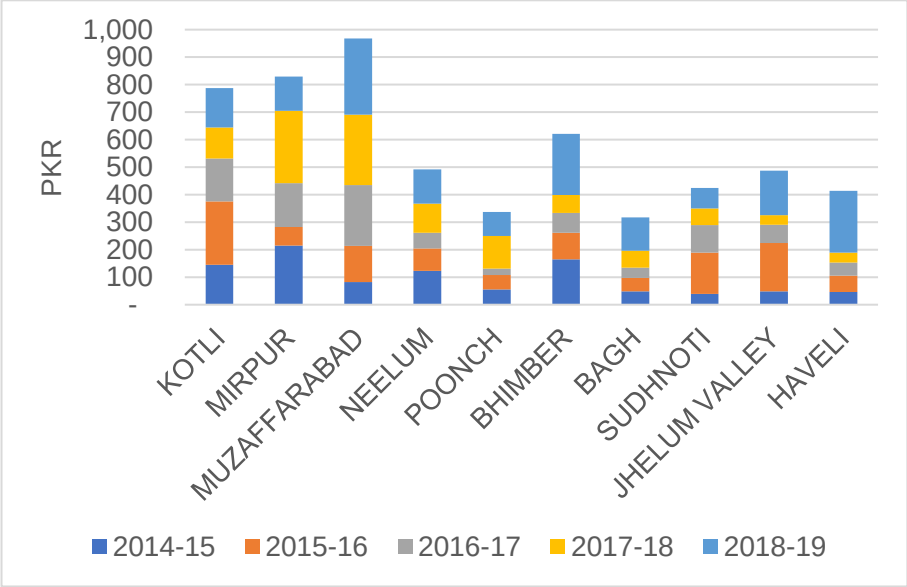
Figure 25 District Level Per Capita Current Expenditures on Secondary Education



Source: Ministry of Planning & Development, Government of AJK

In Figure 26, the per capita development expenditures on secondary education are shown and it is apparent that Muzaffarabad spends the most followed by Mirpur and Kotli. Again, a reversal in spending trend is seen in secondary education compared with primary education development expenditures. The expenditures by District Bagh are least in case of secondary education but they were third highest in primary education. However, the overall development expenditures in secondary education are significantly lower than primary education and the highest expenditures recorded in Muzaffarabad in 2018 were only PKR 277 per capita while Bagh recorded PKR 122 per capita. The overall analysis of the fiscal expenditures leads us to two conclusions; first—current expenditures take away bulk of education budget and hence very less is left for development expenditures; second—expenditures on secondary education remain significantly lower than primary education. There may be two plausible explanations for this trend i.e. first, in some districts, majority of the schools may be newly constructed and require lower operational and maintenance costs, hence the lower development budgets; second, some districts may have shortage of schools and construction of new schools may be requiring higher development budgets. In the next round of this study, efforts may be made in coupling the spatial data with district development analysis, as suggested in the next chapter to improve understanding on these disparities. Since this report is only trying to start the understanding of the disparities in the context of the overall rethinking of the industrial policy for mainstreaming climate and DRM resilience.

Figure 26 District Level Per Capita Development Expenditure on Secondary Education



Source: Ministry of Planning & Development, Government of AJK

3.8. Assessment of Agriculture Specialization in AJK

AJK is home to few industries especially in Mirpur as well as agriculture production in multiple districts, however, the data on value of production of industries and employment is still not compiled by the AJK government. Nevertheless, the data on agriculture production is collected and published in the Statistical Yearbook. This section briefly overviews the existing pattern of agriculture production at district level.

Figure 27 Share of Production of few major crops

Figure 28 show the share of production in few major crops i.e. Onion, Garlic, Potato, Cucumber and Tomato by each district. It is important to note that the agriculture produce of AJK does not include the major Kharif and Rabi crops produced by Pakistan such as rice, wheat, cotton, maize and sugarcane. The vegetables produced in AJK are mostly low valued crops and cannot fetch good prices for the farmers in the market. The data shows that Bagh is the largest contributor in garlic, cucumber and potatoes. Similarly, Neelum contributes more than half of the tomatoes production while Muzaffarabad contributes one third of the onion production. Further, Bhimber and Sudhanoti are the districts which contribute least or none in the production of these major crops.

To summarize the findings related to socio-economic rank, economic endowments and fragility, a radar diagram is constructed for better and quick understanding, as shown in Figure 29.

The figure shows that Mirpur remains the most developed district with lower fragility and high economic endowments. Mirpur also enjoys the highly literate population as well as high remittances from the diaspora. Although, literacy rate is a causal variable for

economic development, but it also remains true for reverse causation. Due to higher economic status funded by the diaspora money, Mirpur residents attained higher education and contributed in the development of the district.

The capital city of Muzaffarabad is seen to be high in economic endowments but at the same time low at overall fragility but very high in political violence as shown in Figure 22. Thus, behind in development, as Muzaffarabad being the capital city and away from the LoC has the remained a political hub and witnessed significant political violence and other crimes. To grow, it needs peace and political stability.

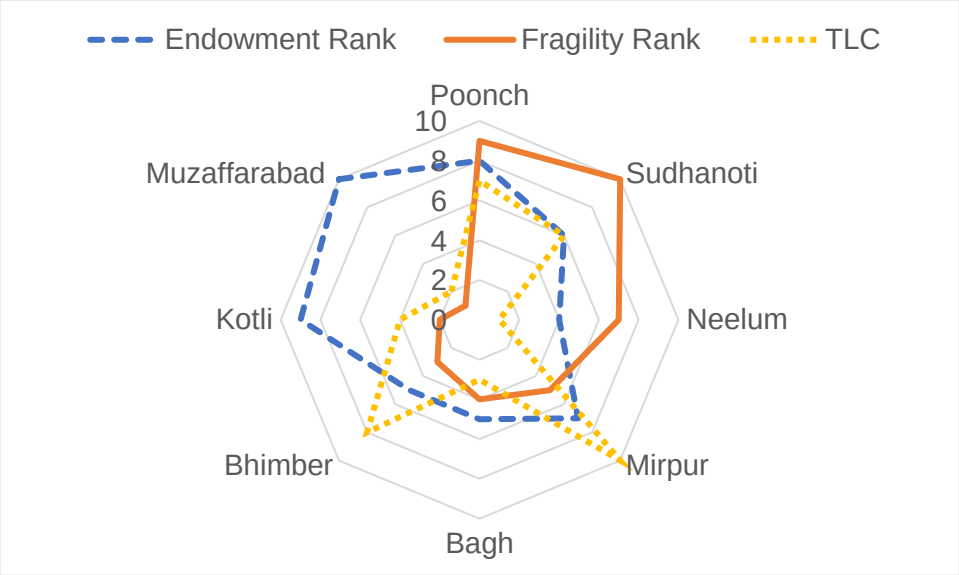
Sudhanoti and Neelum are found to be relatively less endowment as well low in socio-economic development. These districts have the endowment of green forests which may become a game changer for the area in terms of tourism potential. However, what keeps them behind is the very high rate of fragility, acting as an impediment towards tourism growth.

In the cases of Kotl and Bagh, districts blessed with high economic endowments still lag behind in economic development, even with very low fragility. Kotli and Bagh remains anomalies and further analysis of fiscal matters such as efficiency in spending is required to asses why they did not catch up even with low crime and high endowments.

Bhimber, on the other side, is shown to be highly endowed, high in socio-economic development and very low in fragility. This shows that this district has gained more benefits from its endowments and was supported by the peaceful political and social environment that adds to the development.

Poonch is found to be high in socio-economic development after Mirpur and is also blessed with high economic endowments which may be the pushing factor for its development. Poonch faces high fragility but is able to attain development due to permanent presence of army in the area because of the LoC passing through. Poonch also enjoys proximity with Rawalpindi district of Punjab and connectivity with developed regions have spillover effects that Poonch is benefitting from.

Figure 28 Endowment Rank, Fragility Rank and TLC for Eight districts of AJK



After understanding the current socio-economic development status of the AJK at district level, we now discuss the current energy situation of AJK and how it can act as the major ingredient for industrial development and economic growth.

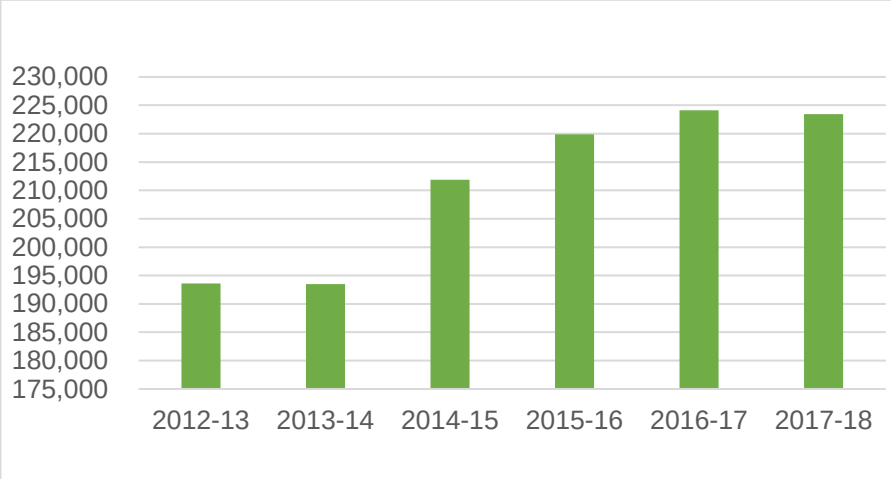
4. Energy & Electrification, at the core of Industrial development

4.1. Energy at the core of Development—Where AJK Stands

Energy is crucial for economic growth. The evidence lies no further than Pakistan itself where energy insecurity and shortage has been hindering the country from reaching its full potential along with a myriad of other problems. Cheap, sustainable, and consistent energy to fulfil the demand is what has been missing in the country. As economies grow, demand for energy increases, industries and businesses get the opportunity to grow further - the relationship between energy and economic growth have long been axiomatic and one of the explanations for the industrial revolution. As World Economic forum puts it, energy contributes to economic growth in a couple of ways[20]. For one, it creates jobs and value as it's an important sector of the economy, and the other is how it underpins everything as it's the most important input.

The state Azad Jammu Kashmir (AJK) because of its topography and level of industrialization has a very small share in total energy consumption in Pakistan. Its share in total petroleum energy consumption stands at a mere 0.88 percent as of FY18[21]. Of this 99 percent is consumed by the transport against negligible consumption by the industries and agriculture sector as shown in Figure 30. Whereas AJK's power sector doesn't consume petroleum products at all, which in large part has to do with AJK's natural endowment in hydel resources, and the power generated from them.

Figure 29 Petroleum Product Consumption in AJK-Tons

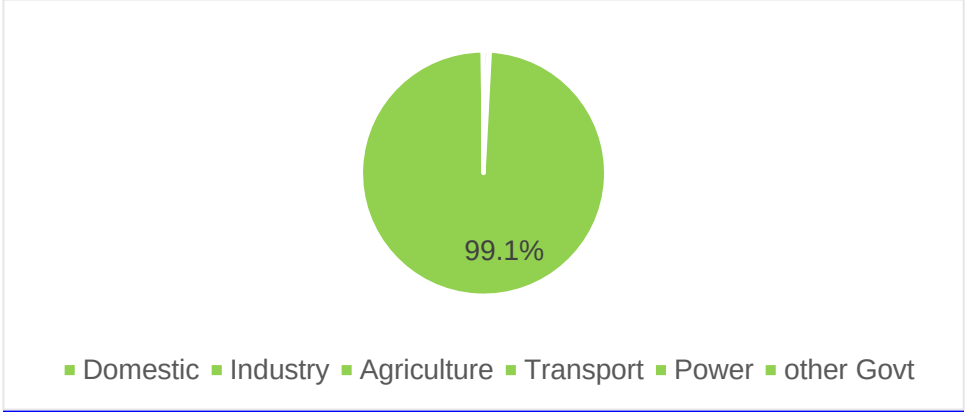


Source: Pakistan Energy Yearbook 2018 - HDIP

A major difference between the petroleum consumption of AJK with Pakistan is that 99 percent of the petroleum is consumed by the transport sector in the AJK as shown in Figures 31 and 32. Whereas, although the highest share is also consumed by transport sector in Pakistan at 65 percent, yet domestic, industry and other government services are also consuming a significant share in total consumption.

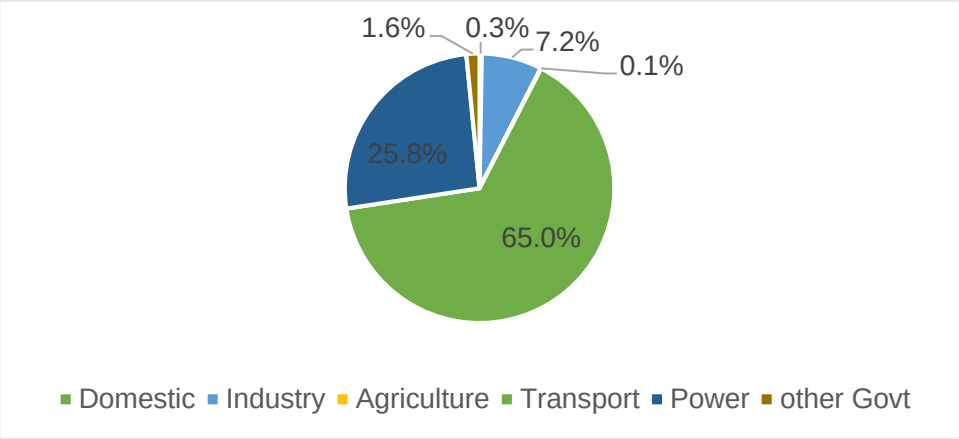
[20] World Economic Forum, Economic Growth through Energy, http://www3.weforum.org/docs/WEF_EN_EnergyEconomicGrowth_IndustryAgenda_2012.pdf
[21] Pakistan Energy Yearbook 2018, Ministry of Energy (Petroleum Division), Hydrocarbon Development Institute of Pakistan

Figure 30 Petroleum Product Consumption of AJK by Sector-2017-18



Source: Pakistan Energy Yearbook 2018 – HDIP

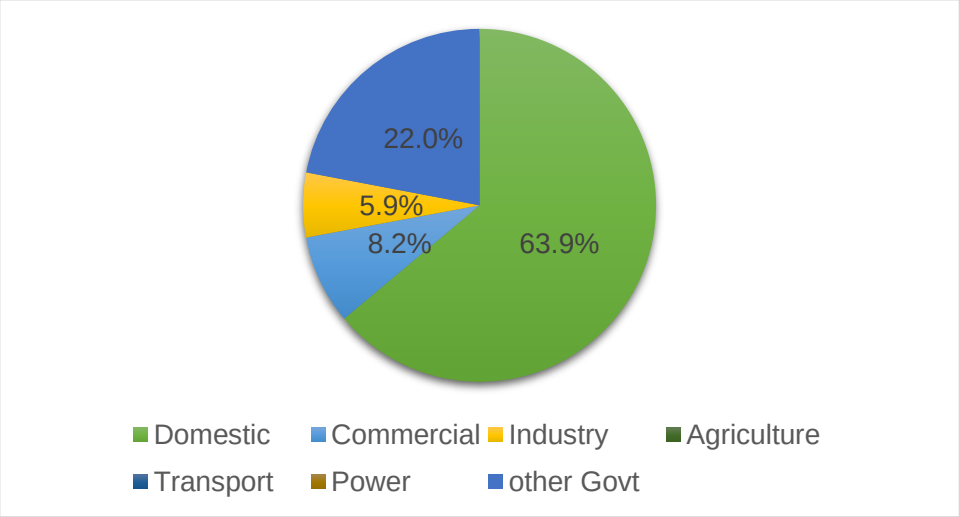
Figure 31 Petroleum Product Consumption of Pakistan by Sector-2017-18



Source: Pakistan Energy Yearbook 2018 - HDIP

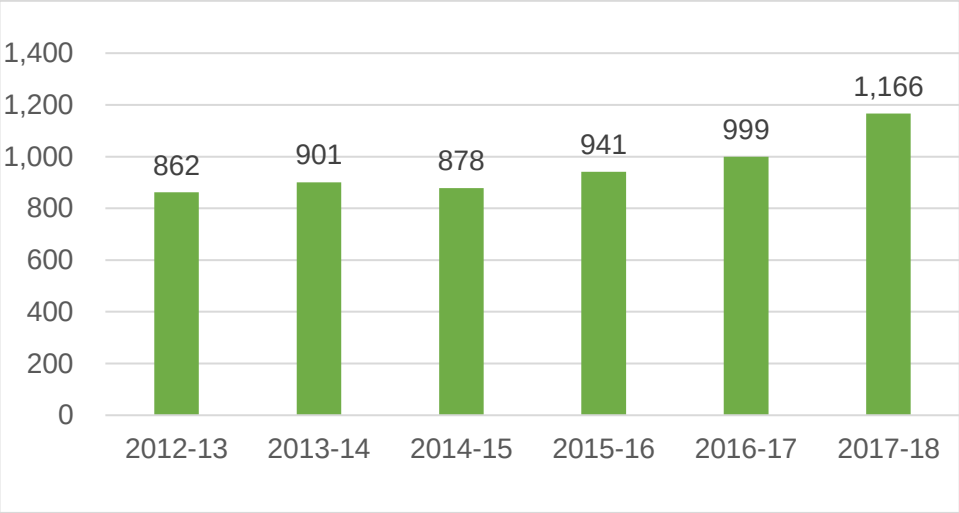
Further, Figure 33 shows that the electricity consumption is also limited to a few sectors only in AJK where domestic sector has the largest share in AJK's total electricity consumption at 64 percent, followed by other government services at 22 percent, commercial sector at 8 percent and industry at 6 percent. This shows that bulk of electricity is not being used in productive measures and mostly consumed by the domestic and government sectors.

Figure 32 Sectoral Electricity Consumption in AJK 2017-18



Source: Pakistan Energy Yearbook 2018 - HDIP

Figure 33 Electricity Consumption by AJK - GWh



Source: Pakistan Energy Yearbook 2018 - HDIP

AJK is a net contributor of electricity to Pakistan: The state of Azad Jammu Kashmir (AJK) is naturally endowed with hydro power resources. In the 1980s, Water and Power Development Authority (WAPDA) conducted feasibility studies on three major rivers of AJK, i.e. Neelum River, Poonch River and Jhelum River and identified potential sites for hydropower projects. As of 2018, the total hydropower generation (operational and under development) in AJK is estimated to be 9255 MW from 95 different sites[22]. The total commissioned projects are 21 which are currently producing 2361MW of electricity while projects with installed capacity of more than 2000MW such as Karot (720 MW) and Kohala (1100MW) on Jhelum River are currently under construction and are expected to start operating by 2021 and 2025 respectively[23]. The major contributors to power production

[22] AJK at Glance 2018, AJK Planning & Development Department
[23] Kohala Hydro Project, http://cpec.gov.pk/project-details/23

are by Mangla dam (1150MW) and Neelum-Jhelum (969MW) while the remaining is contributed by small and micro hydropower plants.

In terms of demand and supply scenario, against the existing generation of 2361MW, the total electricity demand of AJK stands at only 350MW and local distribution supply is around 300MW. The remaining 2000MW of electricity is being transferred by AJK to the national grid of Pakistan. Thus, AJK remains a major contributor towards the national grid as it is producing significantly more than its total demand. After the completion of ongoing projects, AJK is expected to transfer more than 4000MW of electricity to the national grid.

Table 2 Highlights of AJK Electricity Assessment

AJK Total Hydro Power Generation	2361MW
AJK Total Demand	350-400MW
AJK Total Supply	300MW
AJK Electricity Transferred to Pakistan's National Grid	2000MW
AJK Forecasted Transfer to Grid by 2022	4000MW
AJK Total Hydro Power Potential	9255MW

Amazingly, given the dynamics of electricity generation and transmission, none of the locally generated electricity, with the exception of certain micro/small hydro plants, is available to Azad Kashmir directly.

4.2. Electrification Rate in AJK

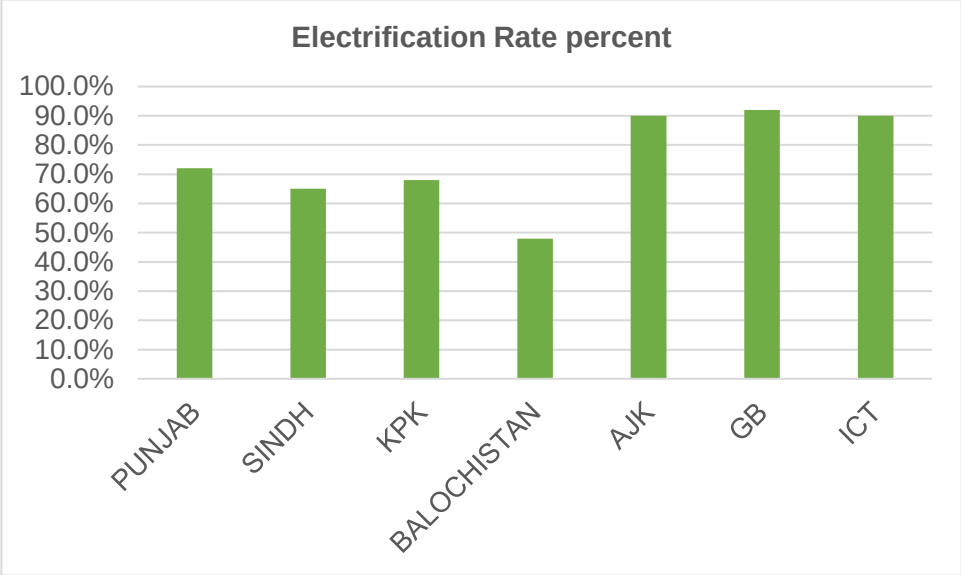
A major accomplishment of the government of AJK in the energy sector is that it has achieved electrification of 93 percent of its total area and the electricity network has been expanded to 1764 out of 1771 villages with an annual, average per capita consumption of electricity in AJK of 403kWh[24]. Further, as shown in Figure 4, the electrification rate of AJK is significantly higher than all four administrative provinces of Pakistan and is at par with Gilgit Baltistan and Islamabad Capital Territory. Furthermore, the electrification rate of AJK is even higher than the rate of the most developed province of Pakistan, i.e. Punjab that has only been able to achieve 72 percent electrification of the area so far.

The supply of electricity in AJK is the responsibility of the AJK Electricity Department which constructs and operates the distribution networks, provides consumer connections, and manages the billing and collection. It purchases electricity in bulk from two distribution companies: Islamabad Electricity Supply Company (IESCO) to the southern parts of AJK, which includes one 132 kV line and grid station (Rawalakot) and two 33 kV grid stations (Bagh and Hajeera); and; the Peshawar Electricity Supply Company (PESCO) for the

[24] Power Sector, AJK P&D, https://www.pndajk.gov.pk/majordevprojects.php?mid=4

northern parts that includes 132 kV lines and grid stations serving Muzaffarabad and 33 kV lines and grid stations serving Hattian and Nauseri

Figure 34 Electrification Rate of AJK and Pakistan



Sustainable energy imperative: The foremost role of energy comes in the shape of an input of production. No electricity would merely imply non-mechanized ways of production. Whereas irregular electricity supply results in poor production, while fluctuation results in lowering the usable lifespan of machinery. Consistent electricity increases the durability as well as the efficiency of physical capital. Review of literature suggests that electricity outages totaling to 56 days in a year results in 5 percent of revenue losses for a firm[25]. To cover the inadequate supply of electricity, large firms generate their own electricity through generators, however, it remains near to impossible for SMEs and their reliance remains dependent on the grid—resulting in the loss of 20 percent of total revenue. In India, states where power outages were more common, firms remained less productive than the states with relatively lesser or zero power outages.[26] The industrial district of Mirpur in AJK has long faced the issue of frequent and long power outages, often lasting up to 12 hours a day[27]. Such unsustainable supply of electricity in a state rich in generating hydro power is unfortunate and contributes to poor industrial growth largely due to lower productivity and loss of revenue to the firm.

4.2.1. Agencies Responsible for Power Generation in AJK

There are four governmental agencies involved in the designing and implementation of power generation in AJK. The federal government of Pakistan's agencies, namely, WAPDA and PPIB are responsible for all power projects with installed capacity of more than 50MW. Whereas, the AJK government agencies, namely, Power Development

[25] Foster, Vivien and Jevgenijs Steinbuks (2009), "Paying the Price for Unreliable Power Supplies," Policy Research Working Paper, No. 4913, Washington, DC: World Bank.
[26] Fernandes, Ana M. and Ariel Pakes (2008)," Factor Utilization in Indian Manufacturing: A Look at the World Bank Investment Climate Surveys Data," NBER Working Paper, No. 14178, Cambridge, MA: NBER
[27] People Protesting in Mirpur, News Tribe, https://www.thenewstribe.com/2013/05/27/people-power-influences-authorities-exempting-kashmirs-mirpur-from-load-shedding/

Organization (PDO) and AJK Private Power Cell are responsible for hydro projects with installed capacity of less than 50MW. The government of AJK established **AJKPDO** in 1989 for the purpose of identifying and supporting development of hydro power projects. The AJKPDO has so far been successful in completing 15 micro projects with an installed capacity of 57MW. The total electricity generated by these micro projects is 220 GWh annually and earns PKR 575 million in annual revenue at a rate of PKR 2.59 kWh.

Moreover, the GoAJK has also established **AJK Private Power Cell (PPC)** for the facilitation of IPPs interested in micro hydel projects development in AJK. The functions of the AJK PPC are:

- A one window facility provision for implementing power generation projects with a maximum capacity of 50MW in the private sector.
- Issuance of Letters of Support and Letters of Intent
- Evaluation of the bids
- For projects exceeding 50MW capacity, PPC cannot act as one window but only as a catalyst between the GoP in Islamabad and the Private Power and Infrastructure Board (PPIB).

4.2.2. The Primary Role of Small & Micro Hydel Projects in the Power Generation Policy of AJK

The role of small and micro hydel projects remains significant in the current as well as future electricity generation scenario of the AJK. The proportion of different sizes of proposed and completed hydro power projects in AJK are shown in Figure 30. This plan is designed around a total potential generation capacity of 8716 MW from a total of 62 projects[28]. The breakdown shows that the bulk of hydro projects planned come under the category of below 10 MW, i.e. 33 out of 62 projects. Only 5 percent of projects are between 10 and 20 MW, while eight projects come under the categories of 20 and 50MW and similarly, eight are between 50 and 200MW. The rest of the 10 projects are between 200 and 1100 MW. This shows that 84 percent of the total hydro projects are less than 200MW and only 16 percent are above 200 MW. The only currently operational hydro projects in the category of above 200 MW are Mangla (1150MW), Neelum-Jhelum (720MW) while the only under construction project is Kohala (1124MW). Therefore, as Table 2 shows, the bulk of completed and ongoing hydro power projects are in the small hydel project category, with a total installed capacity of 1174MW. The remaining 8716MW is planned to be generated through 16 percent of the large hydro power projects.

[28] AJK Power Generation Policy, 2002

Figure 35 Proportion of Different Sizes of Proposed HPPs in AJK Power Generation Plan

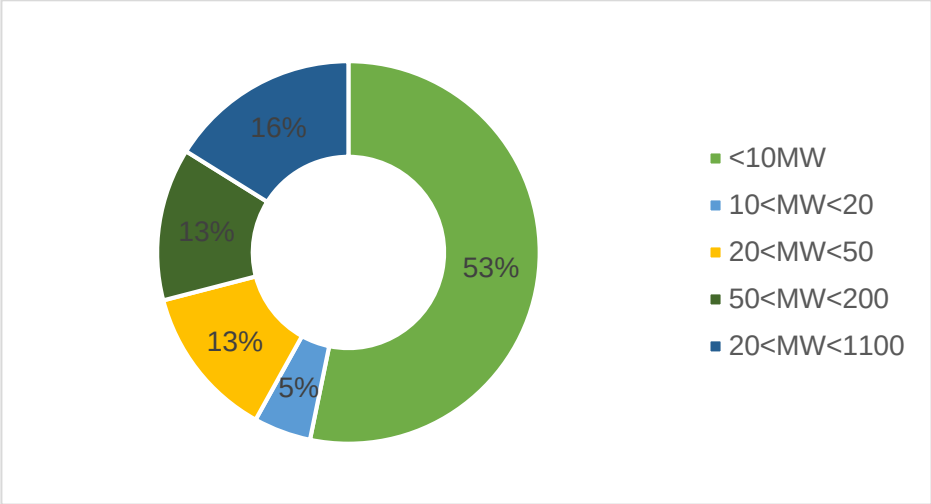


Table 3 Breakdown of Sizes of Proposed HPPs and their Installed Capacity

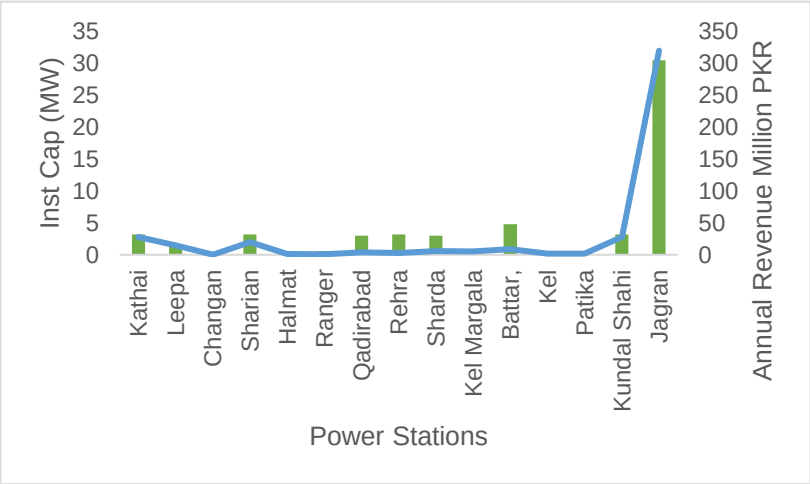
Size of HPP	Nos of HPP	Total Installed Capacity (MW)
<10MW	33	85
10<MW<20	3	37
20<MW<50	8	322
50<MW<200	8	731
20<MW<1100	10	7542
Total	**62**	**8716**

Moreover, revenue generation from micro hydro projects of AJK also show promising returns. The total installed capacity of each project and corresponding revenues are shown in Figure 31 below. All the electricity generated from these power plants is sold at a fixed tariff of PKR 2.59 kWh. These power stations are not dependent upon the NTDC and electricity is not transmitted to the national grid. The Jagran power station is installed with the highest capacity of 30MW of power generation. Due to its higher power generation, it is also earning the highest revenues of PKR 300 million annually. All these revenues are transferred to the national exchequer as profits from electricity. However, the remaining 14 power plants have an installed capacity ranging from 0.05MW to 4.8MW and their subsequent revenue generation is also lower. The overall picture however shows that micro hydel projects are a good investment with good returns on investment. The per MW cost of these projects were averaging PKR7.5 million in 1992 to PKR158 million in 2016[29]. Furthermore, the revenues are generated

[29] Ibid

through a very low tariff compared with the NEPRA determined tariffs for Pakistan.[30]This also bodes well for the development of the tourism and data and related distributed/localized industry.

Figure 36 Status of Completed Micro Hydel Projects under AJK PDO (Off-Grid)



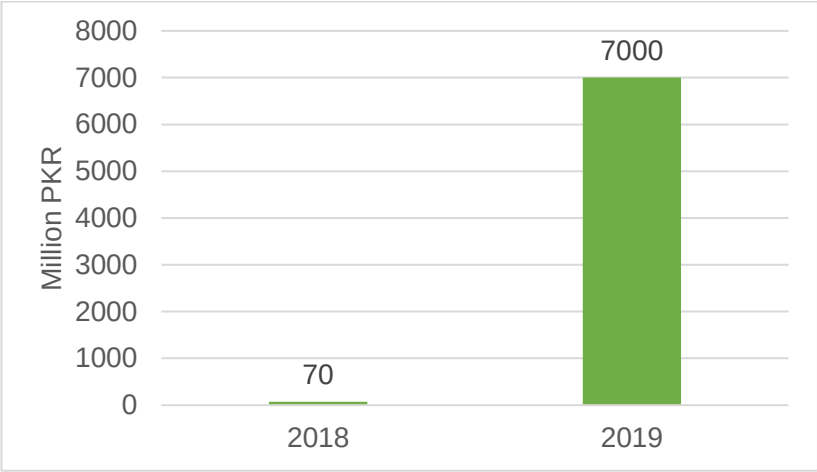
4.2.3. Royalty on Electricity Generation for AJK

Article 161 (2) of the 1973 Constitution of the Islamic Republic of Pakistan states that net profits earned by the federal government accrued from bulk electricity generated by hydro power plants will be paid to the province in which the hydro power station is located. The net profit will be calculated by subtracting the operating expenses, taxes, return on investment, duties, interests, depreciation and over-heads from the total revenue generated through the sale of bulk electricity. The rate at which the net profit will be transferred to the province however is to be determined by the council of common interest (CCI). Although the AJK is not considered part of Pakistan and constitutionally is not entitled, and is contributing 2000MW of electricity to the national grid via the Mangla Hydro and Neelum-Jhelum Hydro plants, the GoAJK continue to demand the net hydro profits from the government of Pakistan as a royalty for using its water resource

The net hydro profits before May 2019 were paid to the AJK as water usage charges at the rate of 0.25 paisa/kWh. However, this rate is significantly lower than the water usage charges paid to the provinces of Pakistan such as Khyber Pakhtunkhwa (KPK) and in May 2019, the government of Pakistan decided to increase the water usage charges for AJK to PKR 1.1/kWh, bringing it at par with the other provinces of Pakistan. It is anticipated that in doing so, the net hydro profits of AJK are boosted from PKR 70 million in 2018 to PKR 11 billion in 2019[31].

[30] Peak tariff @PKR17.59/kWh and off-peak tariff @PKR10.11/kWh, https://iesco.com.pk/index.php/customer-services/tariff-guide
[31] Govt raises AJK water usage charges to Rs1.10/kwh, https://www.thenews.com.pk/print/452994-govt-raises-ajk-water-usage-charges-to-rs1-10-kwh

Figure 37 Net Hydel Profits of AJK



4.2.4. Creating Employment Opportunities through Hydro Power Development—the evolving electricity industry of AJK

Development of new hydro power projects have the potential of increasing employment opportunities in the location of construction through multiple direct, indirect and induced mechanisms. *Direct jobs* are the ones created for the construction and operation of the project. *Indirect jobs* are created in the affiliated industries which are responsible for the provision of raw material for construction and operation of the project. Whereas, *induced jobs* are the ones created by improved and increased supply of electricity in the region. Amongst them, five of the major direct, indirect and induced mechanisms are briefly stated below;

4.2.5. Direct Job Creation for Construction of Hydro Power Projects

The foremost area of employment generation is the need for skilled and unskilled workers from AJK for the construction of hydro project sites, including drawing and maintenance of transmission lines.

4.2.6. Employment Creation in Industries linked with Providing Raw Materials

The construction of hydro power project triggers high demand in many industries such as cement, steel and transportation services. The demand for such goods and services in affiliated industries remain high from the start of construction till the end of the project. Of these, AJK can directly benefit from the transportation services enhancement. In follow-on work to the project, there is a need to understand the extent to which transportation services in AJK are impacting the economy and how AJK can contribute more to enhance its share in the industry, within AJK to start with!

4.2.7. Employment Creation through Multiplier Effect

The Keynesian multiplier effect is stimulated during construction of hydro power project in the form of increased expenditures by the workers directly or indirectly employed for the project. This increased income of all the laborers can be translated into increased expenditures in multiple tradeable and non-tradable goods and services in the local market—resulting in increased employment in multiple sectors of the economy of AJK. The impact of this is significant and lasting for large hydropower projects.

Box 3 Kandalama, an example of how environment and local energy are leveraged to enhance rural tourism

Heritance Resort Luxury Hotels Chain has been awarded as the most energy efficient hotel chain in Sri Lanka. The hotel group has been successful in reducing the reliance of fossil fuel by switching to renewable energy. For the first time in Sri Lankan history, the hotel installed biomass gasifier in the Heritance Kandalama, Dambulla and Heritance Tea Factory. The gasifier is helping in lowering the carbon emissions by up to 750 tons annually through replacement of diesel with grilicidia wood. Instead of importing pollution emitting diesel, the local wood is not only environment friendly, but is also creating employment opportunities for a large number of local farmers. The hot water and central heating facility in the hotel is completely supplied by the sustainable and eco-friendly energy source. This is also helping in lessen import of crude oil that favors the trade balance of Sri Lanka.

This usage of renewable energy is highly environmentally sustainable and attracts more tourists than just for the scenic beauty, wildlife and forestry, as in the scenario of AJK. Also, the way the architecture of Heritage blends into the surroundings and the fact that construction has been designed and done in a way that earthworks and changes in the landscape are minimized, is a stellar example for AJK to follow for boosting its eco-tourism. This architecture is not what is currently being followed in the hilly and earthquake prone areas of AJK.

4.2.8. Employment Generation in Industries Powered by New Electricity

A primary reason for underdeveloped manufacturing and related services sectors in AJK has been the shortage of electricity. Increased electricity generation is a vital ingredient before setting up Small and Medium Enterprises (SMEs) as well as any significant manufacturing (LSM) base in the state. Availability of surplus electricity for AJK industries can enhance employment opportunities for various kinds of skilled and unskilled labor.

Box 4 International Case Studies for Employment Creation through Hydro Power

The availability of consistent electricity supply provides incentive and opportunity for diversification of new services which are otherwise not possible without consistent electricity. Provision of electricity may also induce women in the household to generate income by working at home Such examples may include laundry services, tailoring, home cooked food deliveries, freelancing through internet and many others.

A brief case study analysis of international estimates conducted for calculating the employment creation through hydro power projects is shown in Table 3. The table shows all three kinds of jobs created by three different sizes of hydro projects ranging from small, medium and large, in three different countries i.e. Canada, Uganda and India. It is pertinent to note here that for Canada and India, the average jobs created per 1MW is estimated to be 60 to 66, whereas, for Uganda, the estimate comes to 136 jobs created per 1MW. On average, it implies 60.6 number of jobs created per each 1MW electricity produced with a hydro power project.

Hydro Power Projects	Direct Annual Jobs	Indirect Annual Jobs	Induced Annual Jobs	Total Annual Jobs
Bugoye HPP, Uganda Estimates 13MW	1,079	199	490	1,769
Shongtong HPP, India Estimates 45 MW	12,125	3,871	14,074	30,070
Canadian All HPP Estimates 29000MW	644,674	639,604	470,195	1,754,473
Average Jobs per 1 MW	22	21.8	16	60.6

Source: Job Creation Impact Study: Bugoye Hydropower Plant, Uganda, Andrew Scott, Emily Darko, Prachi Seth and Juan-Pablo Rud June 2013 / Energy and Employment: Case Study Hydropower in India, KFW, 2013/Job Creation and Economic Development Opportunities In The Canadian Hydropower Market, HEC Montreal, 2011

4.3. Efficient and Consistent Energy for Achieving Industrial and Tourism Growth

Sustainable and efficient energy also remains vital for **rural tourism growth**. Tourism operations in rural tourism are generally located in far flung remote areas, where supply of reliable energy is usually a challenge. The same is true for rural tourism in AJK where the major tourist destinations, such as Neelum Valley, are located in remote areas with unsustainable and unreliable power supply. Unlike tourist operations located in areas with access to grid stations, rural tourism operations usually rely on off-grid power and bear the

cost of running on-site power systems. Such operations result in high costs which may make off-grid electricity even more expensive than grid electricity.[32] Rural tourism is significant in employment creation in that one in five jobs created globally in 2017 were in the tourism sector. Tourism is also inclusive and promotes gender development. Over 60 percent of the hospitality industry employees are women around the world.[33]

Energy and especially electricity are the vital components for fueling economic development. Energy acts as an input towards tourism and industrial growth. This is why we first discussed the energy input and now we will move towards next important inputs for industrial growth i.e. availability of finance, skills and labor force.

[32] Powering Tourism Electrification and Efficiency Options for Rural Tourism Facilities, USAID
[33]World Travel & Tourism Council, https://www.wttc.org/about/media-centre/press-releases/press-releases/2018/one-in-five-of-all-new-jobs-created-globally-in-2017-are-attributable-to-travel-and-tourism/

5. SMEs Contribution in Industrial Policy: The role of finance, Skills and Women Inclusion in the Labor Market

5.1. Private Sector and SMEs in AJK: Underdeveloped and Unaddressed

Small and Medium Enterprises (SMEs) are engines of growth and employment and contribute substantially to the GDP, in expanding the workforce and towards creating export earnings. In developing economies where SMEs form majority of the private enterprises, they form the backbone of industries and contribute to social and economic uplift. In many emerging economies, SMEs contribute around 40 percent to GDP, which is even higher—nearly 51 percent, for high-income countries.[34] SMEs also spur innovation and entrepreneurship. In Pakistan, the SME sector contributes about 30 percent to the GDP, employs over 70 percent of the workforce, which does not include the agriculture sector and contributes about 25 percent to export earnings.

Evidently, SMEs in Pakistan contribute less to the GDP compared to the average for emerging economies. Part of the reason is that they remain underdeveloped, even though their potential for growth is immense. It is also difficult to estimate the size of the SME sector in Pakistan, but based on a 2005 economic census, there were 3.2 million economic establishments in Pakistan, of which 99 percent are micro, small and medium enterprises.

Table 4 Employment Potential in AJK by sector

Sector	Employment Potential in AJK
Construction	3018
Tourism and Hospitality	2144
Energy and Power	965
Manufacturing	400

Source: Producing skilled workforce for potential economic sectors in AJK: (GIZ)

It is also equally, if not more, difficult to estimate the size, scope and contribution of the private sector in AJK, particularly that for SMEs. Though the sector is dominated by micro, and SMEs, many remain informal and unregistered. Prospects for expansion, innovation and research and development remain far-off. The share of manufacturing in AJK is not very high. The economy largely depends on agriculture, tourism, and remittances. The region also has well-established local household industries, though they remain informal. Among others, they make mostly textile goods.

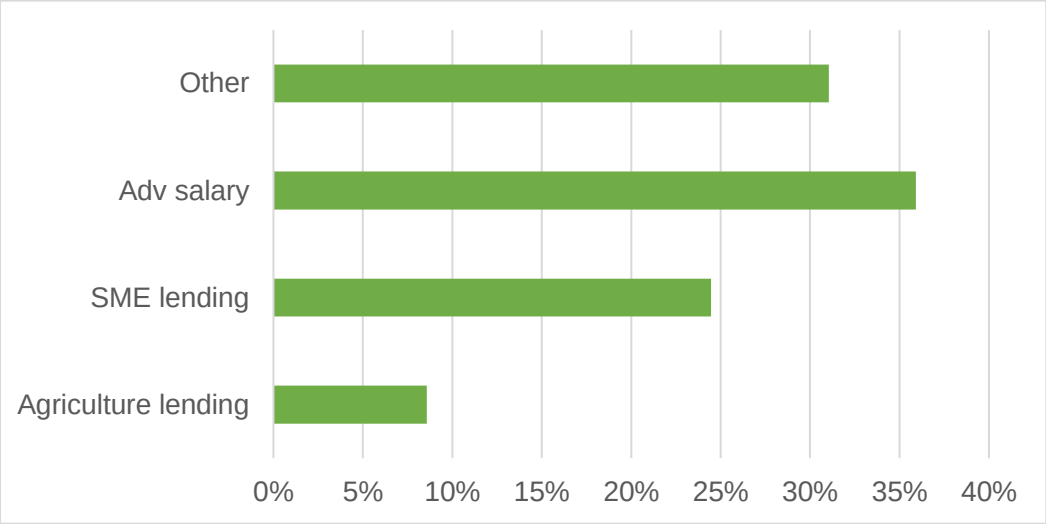
Most of the industries—including the tourism sector—remain underdeveloped due to a lack of focus of subsequent governments amid lack of coordination between AJK government and AJK council, and history of security issues which have now eased. Absence and access to finance is a prominent reason as well.

[34] "Growing the global economy through SMEs". Edinburgh Group. Accessed August 6, 2017. http://www.edinburgh-group.org/media/2776/edinburgh_group_research_-_growing_the_global_economy_through_smes.pdf.

5.2. SME Finance in AJK

Access and availability of SME finance in AJK is as dire as the rest of the country, perhaps more, since informality is pretty rampant in the region. The formal financial sector consists of 22 banks operating officially out of their branches serving mainly as deposit taking institutions with limited lending to the private and commercial sector. Banks shy away from SME lending for most of the reasons mentioned earlier. Critically, since the economic sectors are mainly underdeveloped, with few assets, arranging hefty collateral to meet bank requirements for SMEs is almost impossible. In addition, those micro and small enterprises that are operating informally have no legal status to seek formal lending. The other problem that is specific to AJK is that businessmen from Pakistan or franchises cannot own land in AJK and that is why they cannot offer collateral and they end up using banks for depositing cash and have lending lines, if any, from Pakistan.

Figure 38 Types of Lending in AJK (2018)



Source: Statistical Yearbook AJK 2018

These enterprises end up relying on the costlier informal lending system which runs parallel to the formal one. On the one hand, the challenge is to convince financial institutions to lend to SMEs and on the other is to create awareness and build the trust deficit that exists between financial institutions and existing SMEs. Since many have worked with informal lenders for most of their business lifetimes, they are hesitant to turn to banks, especially with stringent and cumbersome documentation requirements, and paperwork.

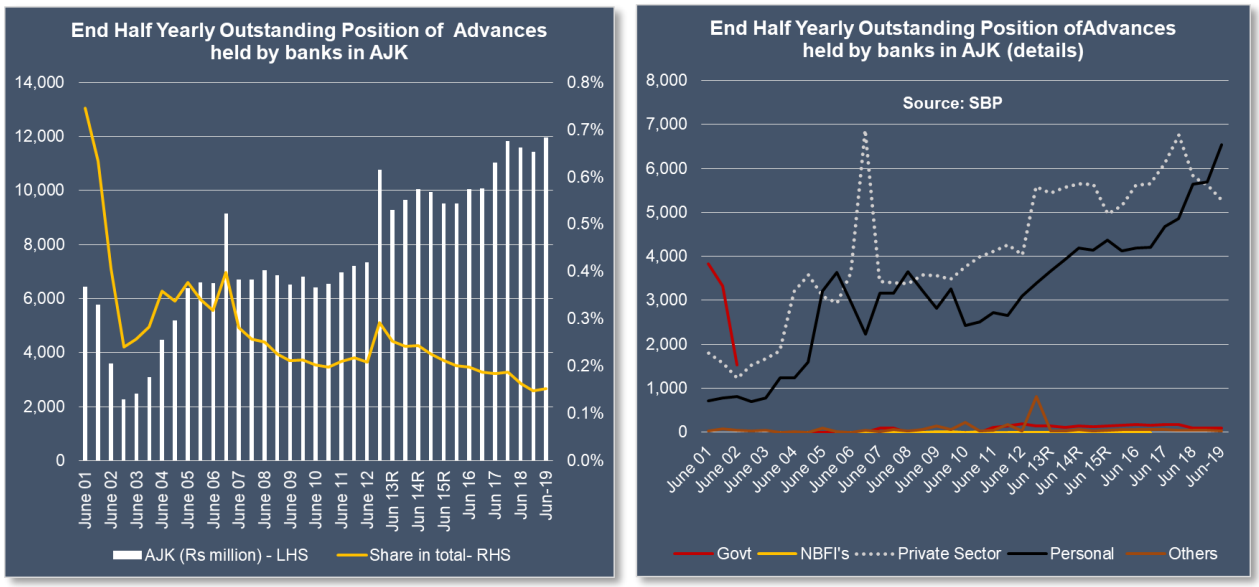
Any new products that the government introduces—with subsidy or without—will have to come with awareness, education and capacity building of these enterprises. The many challenges they face in managing and planning their cash flows and maintaining records will have to be addressed so they meet eligibility criteria of financial institutions.

Microfinance institutions in AJK are operating, though not at a huge scale. They provide lending to agriculture, livestock and micro enterprises for mainly working capital needs. Overall lending is least for the agriculture sector and then for SMEs. Most financial institution lending is not going towards these businesses. It is also difficult to ascertain

what kind of lending is being done by financial institutions—whether it is for working capital or trade financing, though intuitively, it is likely that the same trends follow in AJK as across Pakistan where predominantly, SME financing is concentrated toward meeting working capital needs.

5.3. Banking Deposits—the story from AJK

Figure 39 Advances held by banks in AJK

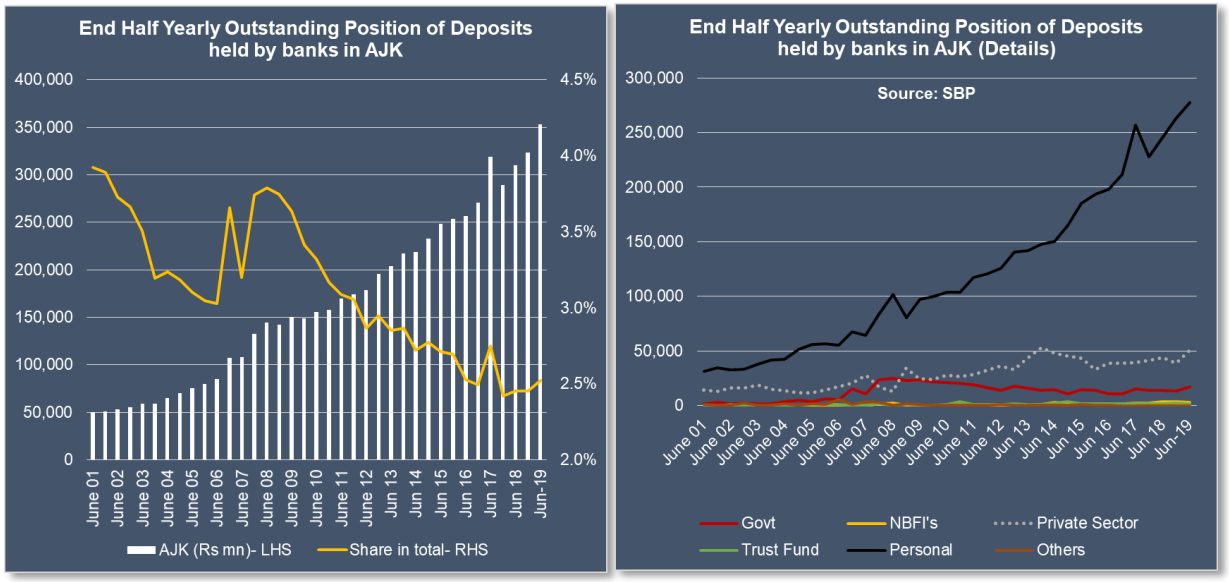


Source: State Bank of Pakistan

Data retrieved from the State Bank of Pakistan (SBP) shows (Figure 29) that advances held with banks in AJK have grown, though their share in total country's advances have actually fallen from 0.8 percent in 2001 to less than 0.2 percent in 2019—the share falling year after year and rarely ever recovering. This shows that though the financial sector in providing credit to different borrowers has grown across the country, in AJK, it has not grown fast enough to keep pace with the rest of the country.
A similar trend can be seen from (Figure 30) which shows deposits held with banks in AJK. Though overall deposits have grown historically, the share of AJK in total economy's deposits has fallen from 4 percent to 2.5 percent since 2001 till date.

Financial inclusion has grown in AJK—about 37 percent of the population in the region has bank accounts—the financial system, however, is still heavily reliant on brick and mortar (as opposed to virtual services) which makes it difficult to extend the services to remote locations. The deposits share in the performance of Pakistan's overall performance is evidence of this.

Figure 40: Deposits held by banks in AJK



Source: State Bank of Pakistan

5.4. Tailoring financing products

As discussed earlier, banks steer clear of financing SMEs due to their high riskiness. They lend based on existing relationship which pushes out majority of borrowers, especially new ones. The products offered are one-size-fits-all vanilla products that may not fit the needs of the SME in question. While the government needs to work on providing remedies for tough collateral requirements, help reduce information asymmetry by allowing private sector credit scoring agencies to operate and strengthen existing credit guarantee schemes, financial institutions need to introduce more tailored products.

5.4.1. Microfinance lending

Microfinance banks in AJK typically lend to agriculture and livestock sectors and need to increase their reach and coverage for micro businesses across different economic sectors in the region. They should employ prudent policies for cost-recovery pricing, pegging to market interest rates and maintaining high portfolio quality. Strong underwriting skills with community agents always give microfinance institutes the required edge. However, they need to start thinking beyond lending toward educating and strengthening these new and existing micro enterprises which require technical guidance and trainings. This is where SMEDA and other business organizations can come in such as the AJK Small Business Corporation which can work together with Micro Finance Institutes (MFIs) or Micro and Small Enterprise (MSE) lending windows within financial institutions. This will allow these MSEs to make prudent financial and management decisions which would set them on a growth path. Such technical assistance is also a risk mitigation strategy since businesses are less likely to default if they are doing well.

5.4.2. Cash flow lending for micro and small enterprises

Commercial banks are often reluctant to lend to the low-end of the small enterprise (SE) borrowers since the loan sizes are in abundance. However, these SE borrowers

are also not catered to by MFIs. The SBP has up-scaled the MFIs to lend to SE borrowers as well as increasing the financing limit. This product can then be offered by both commercial banks and MFIs to meet the working capital needs of micro as well as small enterprises.

Table 5 Running Finance for micro and small enterprises

Type of facility	Working Capital / Running Finance
Purpose of loan	This would help micro and small enterprises as well as farmers to run their existing daily operations to maintain liquidity and positive cash flows
Sector	Tourist industry, SME Manufacturing, Construction, Agriculture, Livestock, Fisheries, Cottage Industry
Target audience	Micro and small enterprises including farmers, and fishermen, traders, retailers, wholesalers, manufacturers
Financing limits	Microenterprises: PKR 150,000- 500,000 Small enterprises: Up to PKR 25 million (this is the maximum limit allowed for Small enterprises as per the definition of SMEs[35] by SBP)
Eligibility	Meet banks' documentation requirements Have documented cash flows to ensure debt servicing Have clean e-CIB record
Tenure	Rolling basis—extendable based on timely repayment and financial performance
Security	- Immovable property wherever possible - Asset-based lending with lien on: trade accounts receivable, inventory, machinery, equipment and real estate
Mark-up to borrowers	KIBOR + 3%
Add-on	Simplified and uniform loan application that can be used across all financial institutes
Loan to value ratio (LVR)	90%
Lenders	Commercial and Islamic Banks, MFIs, DFIs, NBFIs

5.4.3. Program lending for Micro and SMEs

This kind of lending is typically a long-term or fixed investment facility which borrowers can take on to start a business or expand business operations. It can be repaid within 2-5 years. Due to the nature of the lending, these loans may not be suited for microfinance institutes.

[35] Small enterprises- Employees: 1-50 people, Turnover: up to PKR150 million, Finances: PKR15-25 million. Medium enterprises- Employees: 50-250 people, Turnover: PKR150-800 million, Financing: PKR25-200 million. SBP. Web. http://www.sbp.org.pk/smefd/circulars/2016/C2.htm. Accessed May 26, 2018

Table 6 Term lending for Micro and SMEs

Type of facility	Term loan facility
Purpose of loan	Starting a business or expanding existing facilities to improve coverage and improving the quality and efficiency of operations
Sector	Tourist industry, SME Manufacturing, Construction,
Target audience	Tour operators, restaurants and hotels, transport fleet operators, SME manufacturers, SME suppliers, SME builders, SME construction material suppliers
Financing limit	PKR 150,000 to PKR 200 million (this is the maximum limit allowed for Medium enterprises as per the definition of SMEs[36] by SBP)
Eligibility	Have documented cash flows to ensure debt servicing Have clean e-CIB record Product a business plan
Tenure	2-5 years
Security	- Immovable property wherever possible - Asset-based lending with lien on: trade accounts receivable, inventory, machinery, equipment and real estate
Mark-up to borrowers	KIBOR + 3%
Add-on	Simplified and uniform loan application that can be used across all financial institutes
Loan to value ratio (LVR)	90%
Lenders	Commercial and Islamic Banks

5.4.4. Technical assistance

Products can be tailored based on industry requirements and needs. Meanwhile, the AJK government can provide subsidies, or guarantees to make financing more affordable for borrowers and in the latter case, cover part of the risk that the financial entity will face. However, a major work that needs to be done is by supporting institutions such as SMEDA, Karandaaz or private business associations which need to work with both the private sector as well as the banking sector into creating not only more tailored products but also fill the technical gaps that exist among micro and SMEs in understanding business and financial management. Basic commercial trainings to develop business plans, improve financial management and achieve operational efficiency by tackling inventories and cash flows better can all complement the efforts toward their financial inclusion. By better understanding their business, they will be able to better understand their financial needs as well.

[36] Small enterprises- Employees: 1-50 people, Turnover: up to PKR150 million, Finances: PKR15-25 million. Medium enterprises- Employees: 50-250 people, Turnover: PKR150-800 million, Financing: PKR25-200 million. SBP. Web. http://www.sbp.org.pk/smefd/circulars/2016/C2.htm. Accessed May 26, 2018

5.4.5. Extend current credit assistance scheme for small and cottage industries

There are several credit schemes being provided under the Azad Kashmir Small Industries Corporation (AJKSIC) which can be extended.

Table 7 Credit Assistance Scheme of AJKSIC

Type of Facility	Working capital and fixed investment
Purpose of the loan	Provision of markup free loans to the Industrial and Business Community with the collaboration of banks for employment generation in the private sector.
Target groups	Small business & industrial entrepreneurs
Loan offered by	Azad Kashmir Small Industries Corporation (AJKSIC)
Approved Cost	PKR 192.3 million
Loan limit	PKR 50,000 to 1 million
Investment equity	Principal amount provided by the banks. Mark-up to the banks is being paid by the AJKSIC @ KIBOR + 3%
Mark-up to borrowers	Interest free

5.4.6. Strengthening SBP's credit guarantee schemes for small and rural enterprise

The SBP launched a credit guarantee scheme for small, rural and micro enterprises in 2010 in collaboration with Federal Government and UK's Department for International Development (DFID). Under this scheme, the risk coverage of up to 60 percent was provided against credit losses of participating financial institutions on their lending to micro, small and rural enterprises. This helps reduce bank's exposure to these risky assets and tackles information asymmetry. An ADB study[37] conducted to evaluate this scheme found that effective marketing would have made this scheme a much bigger success than it was. The scheme works in principal—as it has across the world. The scheme can be retailored and extended.

5.5. AJK Labor Market Is A Story About Mismatch of Skills - Holding Development Hostage Especially for SMEs

The contemporary developing world can squeeze the gap towards a prosperous future by introduction of knowledge economies. The knowledge economy is not just an outset of dissemination of non-contextual information, it requires scientific and innovative knowledge, incentives to innovate, decentralized integrated patterns of innovation and outreach for the application of the information and communication technologies[38].

Amidst natural disasters, political instability and distorted governance, AJK has been heavily relying on agriculture, livestock and forestry. Despite having a literacy rate as high

[37] MARKETING: THE CRUCIAL SUCCESS FACTOR FOR PAKISTAN'S CREDIT GUARANTEE SCHEME. ADB Institute. Web. https://www.adb.org/sites/default/files/publication/474556/adbi-wp909.pdf

[38] http://siteresources.worldbank.org/EDUCATION/Resources/278200112621066419 5/1636971112621069425 3/DFID_WB_KS_FinalReport_7-31-06.pdf

as 76 percent there has been no innovative advancements made in the major occupations either. The lack of innovation implies lack of skills and information required to market and exhibit at a global level.

According to TVET reform (2017) the skills required by the employers are not provided by the skill provider (universities, vocational and training institutes). It is important to understand; the local people value a college degree more than a vocational degree which can provide guaranteed and better earning. The low-income level of graduates reflects saturation of degrees that cannot provide higher returns. In addition, there is a complete information asymmetry in skills demand and supply market e.g. the market demands 201 mechanics, there is 0 supply for the mechanics or there is a supply of 59 people with English speaking skill whereas demand for the skill is 0[39].

In order to ensure an information symmetry, awareness must be created about the newly emerging markets i.e. industrial services, energy, data, tourism, and so on. TVET or occupational education as used interchangeably requires evolution in the technological changes as necessitated by the industrial revolution (Benavot, 1983). The awareness can be ensured by organizing events i.e. conferences, seminar, expos on the related markets.

TVET must introduce updated curriculum, meeting the contemporary needs of the region for example the demand for few professions due to the expansion of construction, i.e. masons. The curriculum can be taught in Urdu language for easy understanding of the local population. The gender disparity in the education sector must be curtailed so that a larger population can benefit from the technical and vocational programs. Enrolment of women and especially abled people must be reserved on TVET. The state of AJK must be provided more flexibility on the economic decisions and policies, it must be encouraged to develop private sector associations to promote TVET sector. Technical education must be part of the curriculum in the initial school years i.e. grades 5 through 8. The bulk of youth must be well informed about the entrepreneurial opportunities available in the region. TEVTA has been training approximately 12,000 people in AJK annually which can be increased by introducing new training programs which can provide for the new industries, i.e. hoteling. [40]

As CPEC makes its way into the region by introducing a USD 2.7 billion, Kohala power project near Muzaffarabad. The project has a capacity to put the region on the upward trajectory to development, it can alleviate poverty by generating revenue and improving the employment rate. The project will also improve the annual influx of visitors to the region. The advent of this new hydro power project can be a breakthrough for the AJK state; however, the labor force lacks the required skill. The hydro power projects require skilled workers as DAE & B, Tech Electrical Heavy Machine Operator, Crane Operator, Welder, DAE Civil Turbine Technician Shuttering Carpenter Mason Pipe Fitter Solar Technician. However, TEVTA does not provide its training in area for some demanding trades.

[39] https://tvetreform.org.pk/wpcontent/uploads/downloads/pse/Studypercent20ofpercent20Potentialpercent20Economicpercent20Sectors-AJK.pdf

[40] http://unesco.org.pk/eedrmu/tvet/publications/AJKpercent20SKILLpercent20DEVELOPMENTpercent20POLICY.pdf

The government of AJK needs to focus on institutes of trades in demand, i.e. hydro power, construction and tourism. The gap between the skilled labor demand and supply needs to be addressed so that the local citizen can benefit more from the development projects being introduced.

5.5.1. Empowering AJK Youth with Demand Driven Programs

The concept of demand-driven programs is an important aspect of measuring the success of a TVET program. A lot of focus is often placed on the number of enrolments and the number of graduates under the various government sponsored TVET programs but unfortunately there remains a gap between the skill that various industries require versus the skill that is taught under these TVET programs. The success of any TVET program cannot be achieved without the direct involvement of the industries that will eventually absorb the graduates.

With the investment in the power sector under the CPEC initiative in AJK, several opportunities will emerge in various trades like High Pressure Welding, Power Plant Pipe Fitter, Distribution Lineman, Lineman Construction and Technical Helpers. Other industries that may benefit from trained skilled labor in AJK are agriculture, construction and tourism. Entrepreneurial skills for farmers targeting both genders for the growth of their farming business, trades like electrician, plumbing, carpentry, masonry etc. for the construction industry and customer service representatives, chefs, housekeeping, tour guides etc. for the hospitality sector would all add value to overcoming the unemployment challenges in AJK. However, it is crucial that the industry is engaged from the onset and industry experts are directly engaged in the development of the curriculum so that students are taught exactly what the industry is looking for and there remains no gap upon the completion of the course.

There is a great potential for the tourism industry to flourish in AJK. Besides the hydro power, tourism industry is best suited for attracting investment and providing employment opportunities to the locals.

A research survey with industry partners prior to launching a new trade would not only help understand specific technical and curriculum requirements but would strengthen the relationship with the industries and justify the case for making an investment in a particular vocation.

5.5.2. Demand Driven Programs – a Strategy

Once a decision to launch a trade is finalized, it is suggested to follow a three-pronged strategy for the rollout of a TVET support program in AJK. The strategy would involve the following three phases:

Recruitment of students: Specific criteria to be established based on age, qualification and physical fitness, etc. for respective trades.

Training: Determine the duration of training based on the curriculum designed with the industry partner, capacity of trainers (ideally trainers to be directly taken on-board from the industry and then follow the “train the trainer” approach), practical training implementation, assessment of students and certification.

Employment/Entrepreneurship: Engage with industry partners to facilitate employment for students as the skills developed would be directly in sync with the industry demands or provide entrepreneurial support in terms of operations, marketing, finance, etc. for those interested in pursuing entrepreneurship.

It is highly recommended that the Training component of the model proposed above should include certain number of hours dedicated to practical working experience with the potential employment partner. This approach has proven to be successful in many western nations (Germany in particular) where a student has a dedicated number of hours every week that he/she spends at an employment partner providing him/her the opportunity to work in a real-time environment. It is also critical that the medium of instruction be in local language to improve the learning curve.

Another element that must be included as part of every curriculum is the soft and interpersonal skills that helps build the personality of the students and prepares them for their career. Basic courses on time management, conflict management, stress management, communication and leadership development would help groom their overall personality and build a sense of ownership, accountability, trust and respect for one another.

The program of general education and TVET in Azad Jammu Kashmir (AJK) is similar to that in the other provinces of Pakistan. Students are in fact free to move from AJK to institutions to the rest of Pakistan. And upon graduation from any of the TVET programs, Kashmiris are free to seek employment in Pakistan or other countries abroad.[41]

The current population of AJK is estimated at 4 million but does not have enough vocational institutes to cater to the large youth population. Currently, AJK has close to 159 vocational training centers, out of which 66, fall under the public sector and the remaining 93 under the private sector. Annual trainees coming out of these institutions is close to 12,000 out of which 33 percent are coming out of the public sector institutes and 66 percent coming out of the private sector institutes.[42] These figures validate the need for additional investment in vocational and technical training institutes in AJK so youth can be trained with the skills required for industries like power, construction and tourism to flourish.

AJK-based non-profit organization Centre for Peace Development and Reforms (CPDR) in collaboration with London based conflict transformation organization Conciliation Resources[43] launched the first ever needs assessment survey of the youth of Azad Jammu Kashmir. The survey targeted a large number of youths across AJK

41 http://unesco.org.pk/eedrmu/tvet/publications/AJKpercent20SKILLpercent20DEVELOPMENTpercent20POLICY.pdf

42 https://www.pndajk.gov.pk/uploadfiles/downloads/STATISTICALpercent20YEARpercent20BOOKpercent202018.pdf

43 Conciliation Resources is an independent organization working with people in conflict to prevent violence and build peace, providing advice, support and practical resources, headquartered in London, United Kingdom. Conciliation Resources' partners, Atia Anwar and Ezabir Ali are working independently on either side of the Line of Control (LoC) in Kashmir with women affected by the on-going conflict. They are also working on identifying the key economic, socio-political and educational issues that confront AJK's youth against the backdrop of the Kashmir conflict.

on socio-political and economic issues being confronted by them in the backdrop of the Kashmir conflict. It revealed that the unresolved Kashmir dispute between Pakistan and India is widely considered the main issue of concern; almost 9 percent of AJK youth considered it paramount in their lives and believe their socio-economic deprivation derives from it. It also revealed that unemployment is of prime concern to AJK's youth. Almost 66 percent from Muzaffarabad, 60 percent from Rawalakot and 58 percent from Mirpur, strongly believe that economic deprivation is strongly linked to the unresolved issue of Jammu Kashmir.[44]

To tackle the issue of unemployment in AJK, it is recommended that public private partnership be introduced whereby private sector should be incentivized with the land and infrastructure for the setup of vocational and technical training institutes. Subsidies to be also provided by the government to the private sector for running the operations of these institutes. Traditional school premises could also be used for after-hour vocational and technical education. Consular services to be introduced at the traditional schools whereby students who may have challenges academically at an early age may decide to pursue the path of vocational or technical education. With the help of the Federal body of NAVTTC and local AJK TEVTA, career path should also be established for the various vocations similar to traditional jobs for professional growth.

Policies to be formed and enforced for the industries to become a supporting partner providing opportunities for on-the-job training to students during the course of their vocational and technical training. Students may be motivated with a nominal stipend to be paid by the participating industry partner. Reserved seats to be allocated at the institutes and the employer for differently abled students to help them become part of the mainstream workforce. These measures have the ability to provide opportunities for AJK youth to become skilled for a brighter future and help overcome the challenge of unemployment in the region.

5.6. Inclusion of Women in the Labor Market of AJK

For a country like Pakistan where gender disparity is recorded among the worst, women inclusion in the labor force continues to remain weak. According to Labor Force Survey, 2017-18, total labor force in the country was 65.50 million where male labor force stood at 50.74 million increasing by 9.4 percent from the previous survey (2014-15) and female labor force stagnant at 14.76 million (up by less than 1 percent versus 2014-15 survey figures).

While the gender gap is gradually diminishing, Pakistan continues to hold its global ranking amongst the worst countries in terms of gender parity in the Global Gender Gap Index 2018. And while female labor force partition is said to have improved in the last two decades, the official numbers tell a somber tale – at least for the last 7-8 years. Not only has the share of women in the country's labor force remained static – hovering between 14.5-14.7 million between 2012 and 2018, the female participation rate (crude)[45] has actually seen a decline in 2017-18, particularly in the urban areas. The Labor Force Survey 2017-18, shows that women are largely working in agriculture followed by

[44] http://www.cpdr.org.pk/index.php?option=com_content&view=article&id=518:ajk-youth-s-concerns-caused-by-kashmir-dispute-survey&catid=51&Itemid=445

[45] Currently active population expressed as a percentage of the total population in Pakistan

manufacturing and community and personal services they have a share of 14.6 percent. Whereas, in terms of occupational groups, they are mostly working as skilled agricultural worker, followed by elementary/unskilled category, and craft and related trade category.

When it comes to Azad Jammu Kashmir, women inclusion in labor force have been miniscule and lower. Overall, the unemployment in AJK is estimated at 10.3 percent, which is a slight improvement from 11.2 percent recorder in the 2014-15 survey. However, not only is unemployment in AJK generally high compared to the 5.8 percent unemployment rate in Pakistan on average, it is significantly higher among women (22 percent).

Table 8 Labor Force Participation in AJK

	2014-15	2017-18
Crude Participation Rate (percent)	**22.5**	**22.9**
Male	40.1	41
Female	3.9	5.9
Rural	22	22.2
Male	38.8	40.4
Female	3.5	5.3
Urban	25.7	26
Male	42.7	43.6
Female	6.9	8.8
Unemployment Rate (percent)	**11.2**	**10.3**
Male	9.4	8.4
Female	30.5	22.6
Rural	11.4	10.1
Male	9.8	8.1
Female	30.4	23.9
Urban	10	10.09
Male	7	9.2
Female	30.8	19.3

It can also be seen that women in AJK are mostly employed in the community and social services sector. However, the share of women employment in this category has come down from 90 percent in 2014-15 to a little over 50 percent in 2017-18 with a significant share moving to agriculture and forestry category. Furthermore, their employments are usually temporary and volatile as women workers are employed mostly only on seasonal basis as far as the agriculture sector is concerned, while many have informal and short-term employments in the manufacturing and service sector.

Table 9 Employed-Division by Major Industry Groups percent

Major Industry Division	2014-15			2017-18		
	Total	Male	Female	Total	Male	Female
Agriculture/Forestry/Fishing	10.9	11.5	2.4	19.4	17.3	35.5
Manufacturing	5.9	6.1	2.7	8.2	7.9	9.9
Construction	21	22.5	1.2	19	21.4	0.4
Wholesale and Retail	19.9	20.9	1.9	17.4	19.5	1.1
Transport/Communication	8.6	9.2	0	6.8	7.6	0.5
Community/Social Services	30.3	26.1	90.9	27.2	25.1	52.4
Others	3.4	3.7	0.9	2	1.2	0.2

5.6.1. Challenges and Benefits

A multitude of factors inhibit women inclusion or pose challenge for women in AJK to be employed. One is the culture there and the role of women as they work primarily in homes or on the farms. Many factors come into play here. Women in AJK are educated, but gender norms where men are the bread earners and the decision maker while, their women are the home makers is a rampant concept that applies across the area. Socially prescribed roles limit women's access to economic resources such as skills, capital, and technical know-how.

A similar and a widely discussed factor behind lower female labor force participation in the country that aptly applies to AJK as well are the issues in mobility[46]. Women face limited mobility outside homes due to the cultural norms as well as security challenges (the northern area has been particularly affected by terrorist acts), and social taboos. Child marriages and early marriages continue to be an issue in AJK, which automatically lowers chances of women entering the working arena.

Another potential explanation for women participation could be the wage and job discrimination and the opportunities specifically for women. Not only do they get paid less, but they also lose in many reputable opportunities because of sheer preference for men. And for a place like AJK where focus of employment is agriculture, women-oriented jobs are already fewer.

Nonetheless, it is important that measures are taken to improve women participation in employment in uplifting AJK's growth prospects. Women inclusion in labor force is not only crucial for women's economic empowerment and in achieving 2030 Sustainable Development Goals (SDGs), but also for economic growth. Countries that have benefitted from improved female participation in labor force like Bangladesh in the last two decades have also witnessed economic growth during this time along with notable progress on various social and demographic indicators such as the fertility rate, child mortality, maternal mortality, etc.

Imagine the growth in the AJK's output if the female participation rate significantly increases. According to an IMF Staff study[47], the benefits of closing the gender gap

[46] WB Female Labor Force Participation In Pakistan: What Do We Know?
[47] IMF Staff Discussion Note: Economic Gains from Gender Inclusion: New Mechanisms, New Evidence

are much larger as women bring new skills, and overall productivity increases apart from accruing welfare gains.

Women in AJK are particularly vulnerable to live in poverty and those who are part of the active labor force are mostly working in farms and agricultural lands and use methods and modes that are basic. Since agriculture is the key earning segment of the region, efforts for women in this segment can result in economic gains.

Gender sensitivity in all sorts of programs and projects, capacity building for women farmers by providing opportunities to improve crop yield and raise income, technical and vocational training in technology and skills development, and efforts to promote small agro-based home businesses handicrafts, embroidery, rugs, shawls, wood work can be key in unlocking AJK's potential, since around 50 percent of the population is that of women.

After discussing the situation of all the existing inputs to industrialization, we now move towards the output i.e. tourism industry. The next chapter discusses how tourism is a driver of economic growth in the context of AJK and what are the challenges and costs.

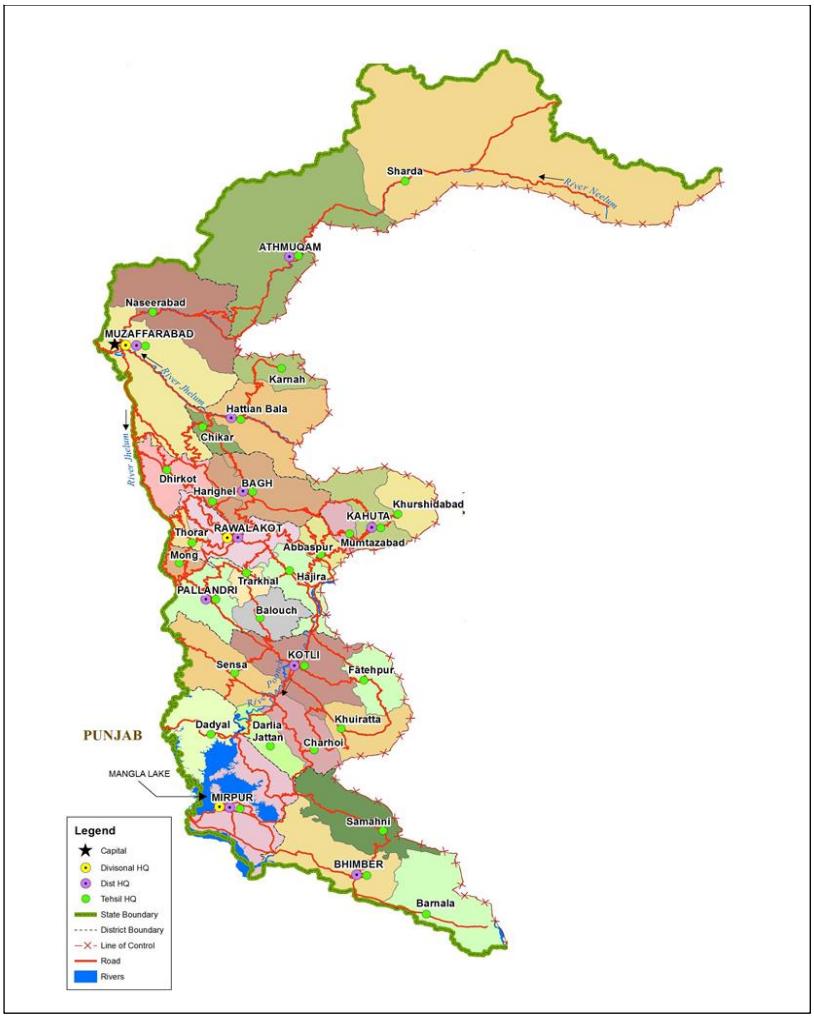
6. Tourism Industry driving the growth in services for AJK

6.1. Tourism Industry in AJK—setting the context

6.1.1. AJK, a Tourist's Paradise

With its fertile, lush mountain valleys, verdant woods and picturesque lakes, the landscape of Azad Jammu Kashmir is nothing short of paradise on earth. Falling within the Himalayan orogenic belt, the ten districts of the province — Neelum, Muzaffarabad, Hattian, Poonch, Sudhanoti, Bagh, Haveli, Kotli, Mirpur and Bhimber — not only offer visitors the chance to explore unmatchable scenic beauty, but also provide excellent opportunities for rock climbing, trekking, mountaineering, camping, fishing, hiking, canoeing and other adventurous activities. All routes connecting these sites to Islamabad are currently open, clear and ready to welcome tourists, with the exception of the areas situated on the Line of Control (LOC).

Figure 41 Map of AJK



Source: AJK Bureau of Statistics

Shadra Fort in Neelum, Hindu temples in Muzaffarabad and Hattian, ruins of Barahdari and Baowli in Poonch and Sadhanoti, and Mughal Saraae in Kotli, among many others. The people of this region are warm, hospitable and diverse in terms of their language and culture, with ethnic descents ranging from Semitic, Mongoloid, Aryan to Turk and

Arab. Their hand-embroidered shawls, *gabba* and *namda* carpets and intricate wood carvings are perfect representations of their rich traditions and unparalleled skill. The cuisine of the area boasts a similar myriad of influences, and the Mughal-inspired *rogan-e-josh, matschgand, modur pulav* and *muji gaad* are dishes bound to leave visitors wanting more.

All year round, AJK organizes festivals celebrating its tourism products, such as snow sports, paragliding and skiing competitions, as well as cultural galas, horse and cattle shows, and spring festivals. Tourists looking for nature, adventure, religious, cuisine and cultural and heritage tourism in one trip will find everything they are looking for among the panoramic, spell-binding green terrains of this wonderful destination.

6.1.2. GoAJK recognizes the importance of Tourism Industry

The economy of AJK depends heavily on subsistence agriculture, livestock and remittances. In recent years, the AJK government has recognized the importance of tourism in generating revenue for the province and has taken several steps to develop this sector. Today, tourism contributes to nearly 3 percent of the state's economy[48]. Around 22 percent of the population of the region is directly or indirectly involved in the tourism sector.

Interestingly, the data about tourists' inflow to the region varies greatly, with various estimates given by different stakeholders. For instance, as per a GIZ study on TVET, the annual tourism inflow in AJK is nearly PKR 5.1 million, which can double with improvements in infrastructure, effective marketing and development of tourism products. In contrast, some of the recent news items, quoting government sources, estimate that about one million tourists visited AJK in 2018, out of which about half visited the Neelum Valley[49]. The bulk of these tourists belong to Karachi and Lahore (domestic tourism), many of whom travel to the northern areas of Pakistan in the summer to escape from the heat. Statistics show that Eid marks the onset of heavy traffic to AJK.

Anecdotal evidence suggests that recent years have witnessed increased tourist arrivals owing to improvement in the law and order situation in the country as a whole, as well as the spread of information and direct marketing by tour operators[50]. However, with the increase in tourism activities, the fragile environment of the province is also facing increased risk. The rampant construction of guesthouses and hotels to facilitate the high volume of tourists has led to an urgent need for timber and increased illegal logging in the area. Moreover, the use of firewood has also increased putting the local forests at risk. The stability of AJKs economy is directly tied to these forests, since they provide the community with grazing ground for cattle and fuel for cooking and heating. Additionally, animal and plant species are in danger because of extensive wood-cutting in the forests. To address this problem, reportedly the AJK Tourism Department announced plans to launch a complaint cell, where illegal logging could be reported,

48 https://tvetreform.org.pk/wpcontent/uploads/downloads/pse/Studypercent20ofpercent20Potentialpercent20Economicpercent20Sectors-AJK.pdf

49 https://www.dawn.com/news/1480283

50 https://www.dawn.com/news/1481697

besides introducing innovative measures, such as encouraging tourists to plant a tree every time they visit Azad Jammu Kashmir.

The tourism sector in AJK is managed by the Tourism and Archaeology Department along with the Directorate General of Tourism and Archaeology. The vision of the government is to use AJK's natural and heritage resources to foster the development of tourism as a viable sector of the economy and make it the best tourist destination in Pakistan[51].

The year 2019 was announced as the 'Year of Tourism' in AJK and a number of activities were planned for the year. Some of these activities are shown in Figure 42 but interestingly none of these were mentioned on the department's website. The website only has links to the department's Facebook and Twitter feeds that occasionally mention major tourism occurrences in the province.

[51] https://pndajk.gov.pk/ADP/2018-19/ADPpercent202018-19.pdf

Figure 42 AJK year of Tourism

The budgetary allocations for the tourism sector have also been on the rise in recent years. The GoAJK announced a budget of PKR 1.21 trillion for the year 2019-20[52]. Besides the recurrent budget, an allocation of PKR 200 million has been made for the tourism sector for the current year's development budget. An expected income of PKR.25 million is also expected from tourism within the fiscal year.

However, these resources are still meagre considering the investment needs of the area. The key will therefore be to mobilize private investment.

The government envisages the public and private investment to be directed towards activities like:

- Establishment of hotels/motels/transport services for tourists
- Promotion of adventure tourism/resort development
- Preservation and protection of archaeological/historical assets
- Upgradation, extension and development of recreational facilities by fostering public-private partnership
- Provision of skills, soft loans, rebates on mark ups, basic facilities, trainings and other incentives to local communities for greater involvement in tourism
- Promotion of tourism through engagement with government and non-government institutions such as Adventure Foundation, Alpine Club and PTDC
- Collaboration with Travel Agencies and Tour Operators of Pakistan to include AJK in tour packages and itineraries

AJK is also working to establish three tourism corridors in the region to attract local and foreign tourists to promote, develop and invest in the tourism sector. These corridors are expected to improve the tourism industry by providing greater employment opportunities, improving the living standard of local population and providing easier access to sites, such as Banjosa, Tolipeer, Lasdanam and Hajipur for incoming tourists.

Moreover, a number of special economic zones (SEZs) are being set up under the China Pakistan Economic Corridor (CPEC). One of these SEZs will be set up in AJK (Mirpur)—discussed further in the following chapter of this report. Other mega-projects under CPEC currently being implemented/planned in the province include the Karto-Kohala hydropower project and Mansehra-Mirpur Expressway.

After nearly a decade, AJK, with the support of Pakistan Tourism Development Corporation (PTDC), has set up its pavilion at the World Tourism Market in London this year[53]. This initiative is expected to put AJK on the global tourist circuit and dispel any negative perceptions. Moreover, with the recently waived requirement for a no-objection certificate (NOC) for foreigners seeking to visit AJK, potential visitors can now explore the region with greater ease. The only exceptions to this rule are border areas, specifically 10 miles of the Pak-China border, Pak-Afghan border, and LOC.

In addition to this, the recent establishment of a highly trained Tourism Police Force is also expected to create a safer environment for the tourists. This team includes female

[52] https://nation.com.pk/19-Jun-2019/ajk-unveils-record-rs1-21-trillion-budget-for-2019-20
[53] https://www.urdupoint.com/en/pakistan/pakistan-to-open-pavilion-in-world-tourism-ma-713653.html

officers, and is not only responsible for regular security functions, but also to serve as hosts for local and international visitors.

6.2. Impediments and Opportunities

The real barriers to the development and promotion of the tourism sector in AJK pertain to: a) its geographic location, with its proximity to the LOC; b) low resource base to adequately finance infrastructure; and c) natural disasters such as earthquakes and landslides preventing the free flow of supplies and goods.

AJK's underlying challenges are fundamentally those of Pakistan, only compounded by its status as an active conflict zone. The state of competitiveness of Pakistan's tourism sector can be gauged from Pakistan's position on the World Economic Forum's Travel & Tourism Competitiveness Index 2019. Pakistan was ranked at 121st position out of 140 countries, the lowest in Asia Pacific region. Nevertheless, Pakistan's position has been improving and has improved by 4 positions in the last four years.

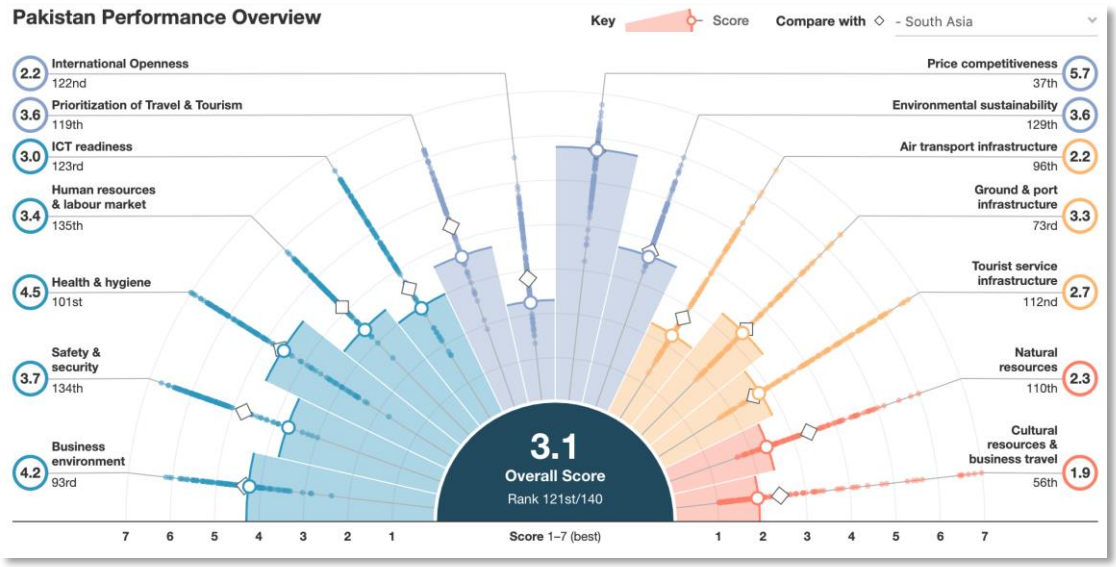
The Travel and Tourism Competitiveness Index comprises of 14 pillars categorized into four sub-indices:

Table 10 The Travel and Tourism Competitiveness Index

Enabling Environment Sub-Index	T&T Policy and Enabling Conditions Sub-Index	Infrastructure Sub-Index	Natural & Cultural Resources Sub-Index
1. Business Environment 2. Safety & Security 3. Health & Hygiene 4. Human Resources & labor Market 5. ICT Readiness	6. Prioritization of Travel and Tourism 7. International Openness 8. Price Competitiveness 9. Environmental Sustainability	10. Air Transport Infrastructure 11. Ground and Port Infrastructure 12. Tourist Service Infrastructure	13. Natural Resources 14. Cultural Resources and Business Travel

Pakistan's position on all of these parameters vis-à-vis South Asia is presented in the figure below:

Figure 43 Pakistan Performance Overview-in comparison to South Asia



Source: World Economic Forum's Travel & Tourism Competitiveness Index 2019

It is evident that Pakistan struggles on most of these indicators but its position on some of the indicators even lag behind its own overall rank in the index. These include human resources and labor market; safety & security; environmental sustainability; ICT readiness; and international openness. Anecdotal evidence suggests that besides safety and security (with the exception of LOC area), AJK struggles with these challenges generally on a higher scale.

More specifically some of the impediments faced by AJK that constrain development of tourism sector in the region include the following:

6.2.1. Conflict Zone

Over the last two decades, Pakistan has suffered immensely from the deteriorating security environment and surging terrorism. Although much of the focus of terrorism has been in the mainland Pakistan, AJK being the conflict zone between India and Pakistan has also suffered because of the poor perception, fear and distrust in the security and safety situation of the country. The country couldn't do much to counter this negative perception and as a consequence Pakistan has remained the target of adverse travel advisories for foreign visitors in the recent past. With the improvement in overall situation this was expected to improve but the more recent standoff with India on the Kashmir issue has made the situation worse, with foreigners avoiding the region.

6.2.2. Access, Infrastructure and Facilities

The infrastructure in AJK has historically suffered from low availability of resources and difficult terrain making infrastructure development even more difficult. Moreover, due to a recent history of natural disasters in AJK, the tourism sector in many areas also suffered major losses, including physical damage to buildings and equipment and lost businesses. This in turn has taken its toll on availability of tourist facilities in the country. Although support from development partners has greatly helped in bridging these

losses, the region continues to suffer from poor quality roads, unreliable supply of electricity, poor sanitation at tourist spots, and lack of proper solid waste management. Moreover, limited conservation and restoration work has been performed at religious and heritage sites and where works have been performed the quality has been a major issue.

6.2.3. Low Resource Allocation and Investment

The Government of AJK is almost fully dependent on Pakistan for its budget and the local revenue mobilization has been minimal. Although the present financial year has witnessed a record budget and an overall increase of 11 percent in the development allocation, the region continues to face severe fiscal constraints. The tourism sector itself has been suffering from low budgetary allocations. For the year 2019-20, a sum of PKR 97 billion has been allocated for the ongoing expenditures, out of which only PKR.173.7 million will be spent on tourism. Similarly, out of the total development allocation of PKR 24.5 billion, tourism sector will only get a meagre PKR 200 million allocation. Interestingly a hefty sum of PKR9 billion has been allocated for roads and communication works, but such allocations are rarely aligned with the tourism.

6.2.4. Lack of Proper Enforcement of Standards

Like the rest of Pakistan, AJK also suffers from absence of enforcement of standards leading to poor quality tourist services. There are three laws encapsulating the tourism regulatory regime including: a) The Pakistan Hotels and Restaurants Act 1976; b) The Pakistan Tourist Guides Act 1976 and; c) The Travel Agencies Act 1976. All these laws have been adopted by AJK in 2018 but unfortunately, they remain unimplemented to a large extent.

6.2.5. Under-developed Tourism Products and Absence of Effective Marketing and Promotion

Despite undertaking commendable initiatives to promote tourism in the province, AJK remains unable to effectively showcase them and attract visitors. The department's website calls 2019 the 'Year of Tourism' without highlighting any tourism activities or events organized in the state. Additionally, it has an archaic design, featuring big chunks of information about AJK's tourism products the average user will not read. Essentially, the entire brunt of marketing and promotion is borne by AJK Tourism's Facebook and Twitter pages. While these platforms offer information about the province's tourism milestones better than the website does, there remains a lot of room for improvement. Both pages suffer from a lack of engagement with the public due to ineffective social media management. Posts are poorly constructed, with visible typos and substandard information as shown in Figure 44. Similarly, visual aid, such as posters, use obsolete design that fails to communicate AJK's tourism attraction potential (picture attached).

Figure 44 Brochure for AJK Tourism Promotion

The AJK Tourism app is another effort by the government to capture the attention of potential visitors. However, the app is incompatible with most devices, and has an average rating of only 2.9 stars out of 5. There is no explicit effort by the AJK Information Technology Board to address complaints posted by users or fix bugs in the app.

6.2.6. Poor Governance and Limited Institutional Capacity

Poor governance especially at the local government level manifested in poor land use, haphazard growth of urban settlements, low quality sanitation and solid waste management services, etc. undermine the tourism development efforts. The consequences of more tourists visiting the area include a toll on the fragile ecosystem through a rise in illegal activities such as logging. Moreover, since tourism development is a multi-sector problem, various departments such as environment, wildlife, forest, road and highways, police and others have to work together to create an enabling environment. But lack of interdepartmental and interprovincial coordination prevents such coordinated action.

Figure 45 Facebook Posts showing International Vloggers travelling to AJK

6.2.7. Low Supply of Skilled Workforce

As per estimates, about 22 percent of the population of the region is directly or indirectly involved in the tourism sector, but unfortunately much of this workforce is poorly skilled. The travel and tourism businesses face the constraint of skilled force, which hampers provision of quality services. AJK TEVTA has also been ineffective in this regard with no tourism related courses being offered for this sector. TVET institutes do not have enough staff or facilities to cater to a growing skilled workforce demand in this sector. Additionally, there is a lack of coordination between employers and training providers. Some vocational training institutions exist under the semi-autonomous AKSIC and SWWD, but their success has also been minimal[54].

However, besides these impediments, there are also a number of positive changes that are taking place in AJK especially in the context of tourism development. These changes provide unprecedented opportunities that can be capitalized to kickstart a new tourism development model in the region.

6.2.8. New Policy and Legal Regime

In 2019, the AJK government has come up with a new law and policy for tourism development - AJK Tourism Policy 2019 and AJK Tourism Promotion Ordinance 2019. The new policy and legal regime have enabled the government to lease out land or buildings (to private investors in the territory) for establishing lodging facilities for tourists in different areas. In this regard, 500 tourism resorts have already been identified. This new regime has rightly put the focus away from solely financing the tourism development through government money to mobilizing private investment.

[54] https://tvetreform.org.pk/wpcontent/uploads/downloads/pse/Studypercent20ofpercent20Potentialpercent20Economicpercent20Sectors-AJK.pdf

This indeed reflects a paradigm shift and if done rightly can very well provide the much-needed resources to the region.

6.2.9. The 13th Constitutional Amendment

Earlier this year, the Thirteenth Amendment has been made through the AJK Interim Constitution Act, 2018, awarding greater legislative powers and executive authority to the AJK government (from the federally managed AJK Council) for better governance and socio-economic development. Under the interim constitution of 1974, the AJK Council was responsible for 52 departments (or 'subjects'), including the licensing of tourism activities in AJK and relevant incentives and concessions (tax holidays, mark-up free loans, duty free on tourism related machinery). Following the amendment, most of these subjects have now been transferred to the AJK government[55]. Following the Thirteenth Amendment, the AJK Tourism Department accordingly modified its Tourist Acts, which are now: a) AJK Hotel & Restaurants Act 2018; b) AJK Travel Agencies Act 2018; and c) AJK Tour Guides Act 2018.

6.2.10. Tourism as a National Priority

With the new PTI government in Islamabad, tourism has become a national priority, with reactivation of PTDC and appointment of a cabinet member for the tourism portfolio. The results are evident. As mentioned earlier, for the first time in ten years, AJK government is setting up a pavilion in World Tourism Summit in London, through PTDC's support. This momentum is likely to continue and provides an opportunity for tourism development. The PTI has made a number of commitments in its elections manifesto and the AJK government could position itself to benefit from these initiatives and claim some of the projects spearheaded by the federal government. These commitments include: promoting and positioning Pakistan as "Asia's Best Kept Secret" in the global tourism market; championing tourism in places; developing 20 new tourist destinations in 5 years (4 each year); implementing a framework to incentivize private sector investments in upgradation and development of new facilities which in particular would encourage "themed" tourism such as eco-tourism and other special incentives; opening all government guest houses to the public; undertaking the uplift of our accommodation infrastructure and transport services across all, from hostels to 5-star facilities; aggressively encouraging entrepreneurship, especially SMEs, to boost economic value and job creation in the tourism industry; eliminating NOC condition for high potential tourist destinations; and supporting TVET curriculum and institute development to upskill human capital in hospitality to fill the supply side deficit of skilled labor.

6.2.11. New Private Facilities

Over the years, private sector has established a number of facilities in various AJK destinations, which has provided a new impetus to tourism development in the region. The most important of these is the construction of Pearl Continental Hotel at Muzaffarabad, which has provided first-class accommodation in the city, promoted urban tourism and has put Muzaffarabad on the map for conference and seminars. This investment has also encouraged all private sector payers and the city has seen a

[55] A further detail on the governance and institutions in AJK is provided in Chapter 1 and 7

rapid growth in investment in the hotel sector ever since. A second Pearl Continental Hotel is also being constructed in Mirpur and presents huge potential for further growth in the tourism sector and allied services through the provision of a world class five-star hotel.

6.2.12. Tourism Corridors

As mentioned earlier, the AJK government is planning to develop three tourism corridors. The first of the three corridors, is now open for use. The new Azad Pattan-Rawalakot Highway starts from Muzaffarabad up to Devi Gali in Tarrarkhal. It links Poonch, Haveli and Kotli, and serves as a direct link between 10 districts of the state. This road was built through support from Asian Development Bank, following Bhutan's model of eco-tourism and employing bio-remediation methods for protection against landslides. The first corridor is located in Jhelum valley, second in Neelum valley and the third in Kotli-Mirpur[56]. These corridors are expected to open up new areas and can stimulate tourism development in the region. These corridors are further supported by investments by the development partners such as ADB-financed USD220.04 million under the three-year Flood Emergency Reconstruction and Resilience Project (FERRP) for the construction of 10 major and 15 district roads.

6.2.13. AJK Diaspora and the Potential for Investment

AJK's diaspora abroad perhaps is the most promising opportunity the region has. Over the years, the locals have gone and settled in different parts of the world. One of the major reasons for this resettlement and migration is the construction of Mangla Dam. They frequently visit home and also contribute to the economy through remittances. Remittances from AJK population claim about a quarter of total remittances received by the country. As per estimates, about 51 percent of AJK's population is living abroad[57] and almost two-third of Pakistanis living in England are from AJK, majority of them are from Mirpur. These overseas Pakistanis, if tapped, can be a valuable source for diaspora investments in the tourism sector.

[56] https://www.dawn.com/news/1454535
[57] 2007 socio-economic survey of AJK

Box 5 Cross border Tourism

The current political situation in Kashmir on both sides of the border does not provide any space for cross-border tourism. Nevertheless, this remains as a promising opportunity that must be mentioned. It is hoped that whenever the situation gets better, this thread may be pursued through some appropriate measures. The separation of Kashmir created divided families across both sides of the LoC, interrupted natural flows of trade and commerce in the region, hindered trade and travel. The promotion of cross Line of Control (LoC) tourism can be promoted by encouraging greater interactions between local populations on both sides.

In the past, there have been two historic instances of cross-LoC CBMs — the first was the establishment of two bus services in 2005, and the second was the commencement of trade between J&K and AJK in 2008. These CBMs had certain limitations. The bus services only addressed the needs of divided families in select districts in the Kashmir Valley — Rajouri and Poonch on the Indian side and Muzaffarabad, Mirpur, and Rawalakot on the Pakistani side. The truck services only carried a small quantity of goods, trade was restricted to the geographical limits of Kashmir, and both India and Pakistan treated cross-LoC trade as a political, and not an economic, CBM, which affected each state's motivation to keep it going. Despite these constraints, these efforts show that tourism across the LoC is possible.

In comparison, the Pakistani side of Kashmir is underdeveloped relative to its overall tourism industry, both at the governmental and civil society levels. A USIP special report on 'Tourism and Peacebuilding in Jammu and Kashmir' offers certain recommendations to help start a movement towards cross-LoC tourism:

- India and Pakistan should begin with package tourism, focusing on a few tourist circuits, and ensuring that each subregion is covered.
- Both countries should consider relaxing travel restrictions so the members of different cultures within Kashmir (for example Pahari and Gujjar cultures) can organize and join regional festivals and border melas across the LoC.
- Both countries should consider opening the Jammu-Sialkot and Karghil-Skardu routes, in addition to the functional Srinigar-Muzaffarabad and Poonch-Rawalakot routes, for the movement of people and goods.
- Both countries should make the travel and communication regime for divided families and traders simpler.
- Both countries should build basic facilities, from hotels, restaurants, and dhabas, to tourist infrastructure, along providing adequate transport facilities. Civil society should be encouraged to build similar structures through government-civil society initiatives.
- There should be collaboration between the AJK Dept. of Tourism and Archaeology and the J&K Dept. of Tourism, as the former can learn from the latter, and there is scope for collaboration between them.
- AJ&K should develop a joint hotel management training institute where training in the hospitality sector can be provided to individuals wishing to join this industry. Additionally, vocational training institutes should be set up on both sides.
- Both sides can benefit from private investment in their tourism-related services sector.

6.3. Connecting the Dots—taking the Tourism Industry Forward in AJK

Addressing the impediments mentioned above and capitalizing on the opportunities identified will be a long journey, requiring concerted efforts by the government. Nevertheless, there are some early steps that can be taken. Connecting these dots can very well initiate this journey and lay the foundation for transforming AJK's tourism sector into a vibrant industry.

6.3.1. Operationalizing the Policy/Law

As explained earlier, the Government of AJK has come up with a new policy and legal regime. These changes drastically alter the way tourism has been approached. But for now, these documents remain largely unimplemented. Deciding to attract private investment is one thing but making that happen is another. With the current institutional structure, this may be a difficult task. Therefore, there is a need to develop action plans to implement the new policy and the law and for that purpose, the department may need fresh talent, new positions or maybe even a new unit altogether. This should then be followed by coming up with sub-statutory regulations and also updating the three-core tourism-related laws. In parallel, the government should minimize its role, limiting it to regulation and provision of enabling environment to let the private sector take the lead in this space. Such regulatory reforms will increase tourist confidence, improve the tourist services standards and will increase the competitiveness of the travel and tourism industry in the region.

6.3.2. Developing an Investment Pipeline

Attracting private sector capital would need bankable transactions and projects. Although the new policy and legal regime has enabled the government to lease out land or buildings to private investors in the territory for establishing lodging facilities and the government has already identified 500 tourism resort locations, there is now a need to pick up high priority projects that are likely to be of greater interest to the private sector. With sound feasibility studies, there is then a need to develop them into bankable commercial projects, ensuring full cost recovery for the private sector. These projects can then be offered to the market, including diaspora investors, to attract the investment. Investment roadshows can greatly help in this regard.

6.3.3. Corridors Development Approach

Government of AJK has already initiated the process of developing three new tourism corridors and the first corridor is already open to public. This could provide a new stimulus for tourism development. However, tourism corridors are not just about developing road infrastructure and opening up new areas. Without adequate planning, this could in fact do more harm than good. The construction could start speculation in land prices, followed by haphazard development and uncontrolled tourists' inflow. Instead the government needs to develop a comprehensive corridors development framework, focusing on improving civic infrastructure in nodes (that are being connected), regulating the construction and development and providing appropriate incentives to attract investment in desirable areas. Government should duly address any concerns regarding environmental degradation, preservation, land zoning, local government regulations, and other related measures. The AJK government may also

need special institutional or regulatory arrangements that may be required to ensure preservation and management of tourism sites. Therefore, there is an immediate need to develop corridor development plans along the proposed corridors. This should then be followed by developing high quality tourism and support infrastructure, including local transportation as well as tourist service infrastructure, possibly through public-private partnership.

6.3.4. Focusing on Urban Tourism

Tourists flow first to the urban centers on the way to other destinations—these need to be made attractive tourist destinations initially. Investment in cities like Muzaffarabad and establishment of new hotels has already laid a foundation for urban tourism. There is now a need to develop this into appropriate tourism products. Most of the tourists who want to travel ahead have to cross through either Muzaffarabad or Mirpur. In many cases, they also spend a few days here or in some cases reside there and undertake day trips. The facilities in the cities should be developed to provide excursions and recreation to the incoming tourists and create enough activities for one to two full days. These activities could include nearby excursions, guided tours, theme parks, food streets, etc. Such focus on urban tourism can ensure greater spending by the incoming tourists and can also support onward travel. The soon-to-be functional airport in Muzaffarabad can also play an instrumental role in promoting urban tourism.

6.3.5. Promoting Sustainable Tourism

The Government of AJK may also focus on eco-tourism and plan to create eco-tourism villages. Similar efforts are already underway in Khyber Pakhtunkhwa. In these efforts, local communities should be involved and may be given grants to offer bed-and-breakfast type arrangements. This would not only improve livelihoods of the local population but will also enhance the region's tourism brand. The AJK government should ensure that sustainable environmental management remains central to all tourism development initiatives. The model of environmentally friendly camping pods successfully established in scenic spots such as Swat (KP) is an example for similar destinations in AJK as well. Such alternate modes of accommodation help in conserving the ecosystem and offer a creative and innovative experience for tourists.

6.3.6. Developing Institutional Capacity

Tourism is a multi-sector issue and cannot be managed alone by the Tourism Department itself. As mentioned earlier, other investments in roads and civic infrastructure should be aligned with tourism development plans. Therefore, there is a need to create a cross-departmental government body – such as Tourism Council – that coordinates tourism development across all relevant departments including forest, wildlife, communication, transport, local government, etc.

6.4. Developing a Pool of Skilled Workforce

Skill development is perhaps the most critical element for transformation of the tourism sector. Availability of well-trained skilled workforce will support private sector investments and will also provide employment to the local population. The Government of AJK should focus on offering travel and tourism related courses within the region. Reportedly, there is

already some partnership arrangement of Tourism Department with College of Hotel Management and Tourism (COTHM), Lahore. Such partnerships should be strengthened and COTHM can be incentivized to open up campuses at Mirpur and Muzaffarabad. The government may also consider arrangements with local and foreign universities to offer students scholarships and training in the field of tourism and hospitality.

6.5. Restructuring Marketing and Promotional Approach

The government of AJK needs to re-evaluate its current marketing and promotional efforts to be able to spread awareness about its tourism brand more effectively. The Department's website needs to be updated immediately, offering potential tourists' critical information in eye-catching ways to captivate their attention. An example can be taken from Khyber Pakhtunkhwa's cutting-edge 'Experience KP in 360 °' feature, which allows the user to virtually step into major tourism destinations and 'look around'. The AJK Tourism app should be rebuilt based on feedback and complaints posted. Similarly, AJK Tourism's social media presence needs to be more active, with better strategies to engage with the public. A focused use of attention-grabbing hashtags and prizes for photography and videography competitions are easy ways of generating interest. Tourists can be encouraged to post vlogs and accounts of their time in AJK as an authentic way of inspiring other travelers to come and visit. If the Government of AJK intends to offer its rest houses for private accommodation, it should do that by immediately linking with international travel websites like Booking.com. Ideally however, these should be handed over under a management contract to the private sector, under the public private partnership mode.

6.6. AJK's Approach towards Tourism Industry Needs Further Work

While highlighting the potential of tourism sector in AJK, the initial thinking summarized in this chapter has identified some of the recent changes and opportunities that can be capitalized on. This is only a first step. There is a need to explore some of these ideas in greater depth. Moreover, the resource side also has to be looked at to make these plans more concrete.

The consultants also briefly touch the overall policy and regulatory framework, which needs to be reviewed in greater detail and improvements made where possible. The multi-departmental considerations and the complexities in the governance framework, must be looked at, to ensure that whatever regulatory or policy changes are there, the government has adequate capacity to implement them. Most importantly, transforming the traditional public sector-led model into a private sector-led approach would need capacities and interfaces to interact with and engage private sector.

The growth of tourism industry remains vital for economic development of AJK. Yet, another major ingredient for economic growth are the SEZs which need to be effective and targeted so that they could attract potential domestic as well as foreign investment. The detailed cost benefit analysis of potential SEZs in AJK is followed in the next chapter.

7. Reviewing Mirpur's Planned SEZ as a Learning for AJK's Industrial Development

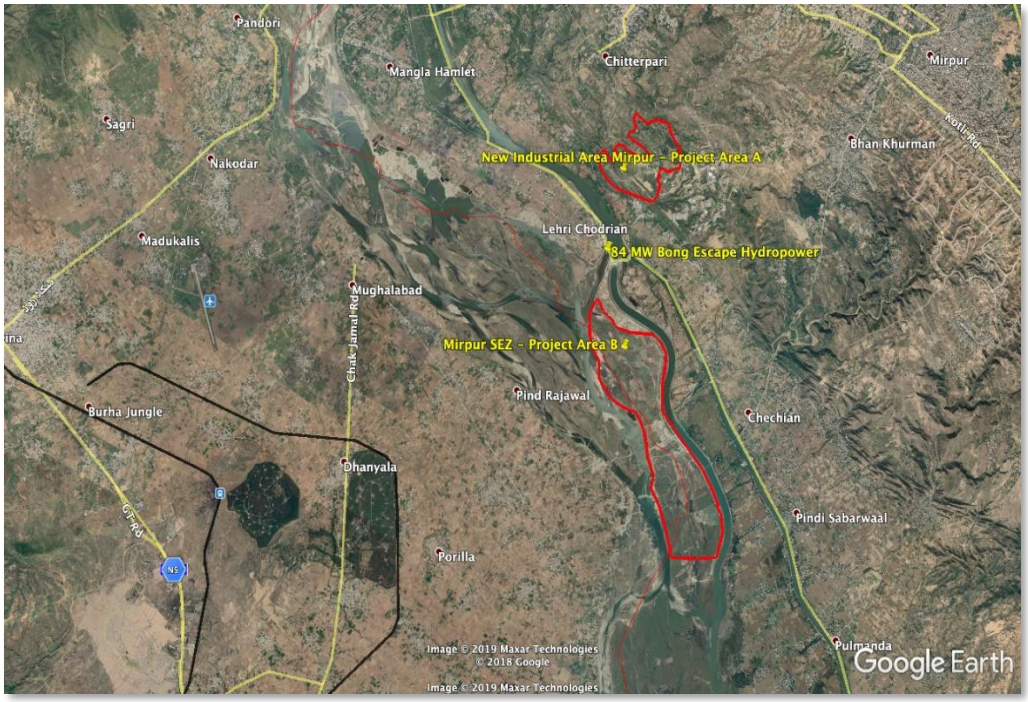
7.1. Proposed Mirpur Special Economic Zone (MSEZ)

7.1.1. SEZ Location

The proposed Mirpur SEZ comprises of two sites with a total of 1,081 acres. Site A is the existing 'New Industrial Area' of 178 acres, and Site B is the planned SEZ of 903 acres. Site B is located adjacent to the Bong Escape hydropower plant downstream of Mangla and bounded by a canal to the north and river Jhelum to the south. In Site B, 576 acres have been acquired and 372 acres are under process of being acquired. The two sites in the proposed SEZ are about 8.5 km apart.[58,59]

The feasibility study/draft PC-I covers the development of 576 acres only of the proposed SEZ site B. Location of the MSEZ sites is shown in figure 46.

Figure 46 Proposed MSEZ project site



7.1.1.1. Proposed MSEZ Site Advantages

The proposed site is located close to four urban centers - Mirpur city, Mangla cantonment, Dina and Jhelum, all within a 20 Km radius. Skilled human resources, technical institutes, universities, medical facilities and markets are abundantly available in the region. The national transport corridor of N-5 and the main North-South railway track is just 45 minutes away. The project has been selected as one of the priority economic zones to be developed under the China Pakistan Economic Corridor (CPEC) with a potential to revitalize the regional economy and provide employment opportunities not only within the SEZ but also though vertical and

[58] Draft PC-I, Hydrologic and hydraulic report MSEZ, figure page 9.
[59] Draft PC-I Market Research MSEZ, figure page 13 reports Site A to be 160 acres.

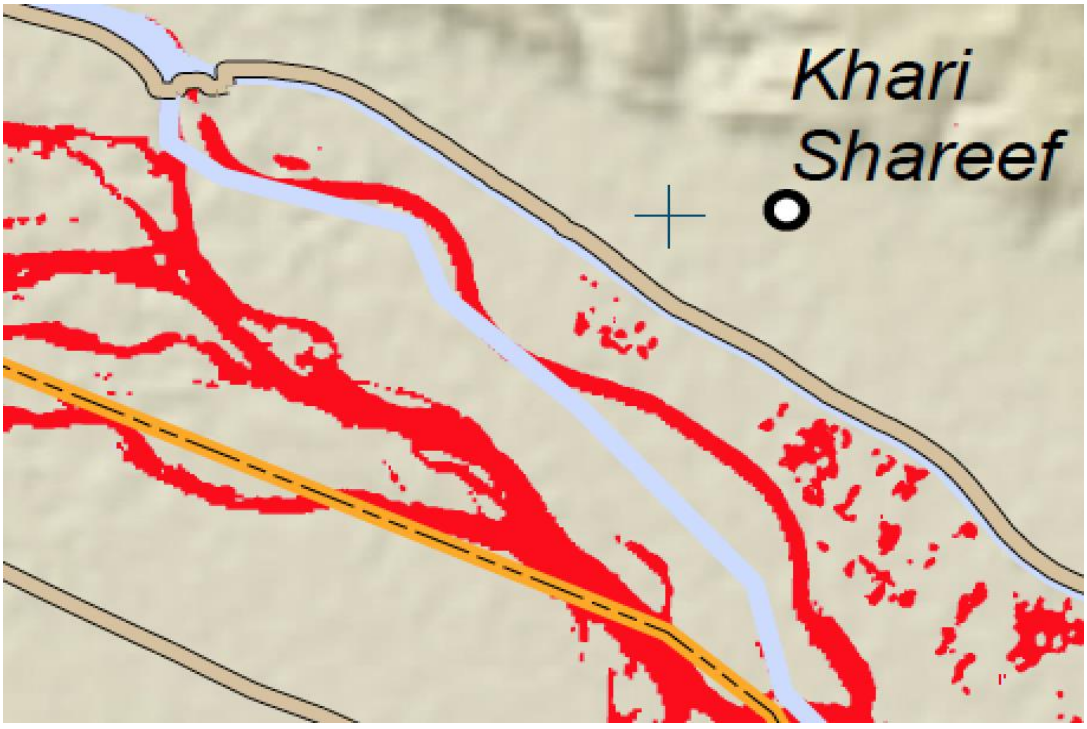
horizontal linkages with existing industries in the region. Another unique opportunity offered by the location is the potential engagement of the Mirpur diaspora as investors in the MSEZ.

7.1.1.2. Proposed MSEZ Site Specific challenges

The proposed site does pose several challenges primarily because of the following issues.

a) It is a flood prone area and would require building flood protection bunds as proposed in the feasibility study on both sides of the Jhelum River. The feasibility report highlights this risk and potential for flooding in about 185 acres of the proposed site. Flood prone areas can be seen in figure 47[60].
b) Road corridors linking the planned SEZ will have to be dualized including that between Dina and the SEZ site.
c) In order to include the New Industrial Area Mirpur (Project Area A) in the SEZ, investment would also be required to upgrade the zone infrastructure and road linkages to both Mirpur and project site B.
d) There is no railway link to the sites and no nearby dry port.
e) Distance to seaport and trade markets.

Figure 47 Project Site Flood Prone Area



7.1.2. AJK Climate Change Policy and proposed MSEZ

The government of AJK has adopted a Climate Change policy in 2017, which also forms the basis for this overall project report on rethinking AJK's Industrial Policy. The 2017 policy requires development of appropriate economic incentives to encourage public and private sector investments in adaptation and mitigation measures. In the context applicable to SEZs, the 2017 policy requires minimizing the risks arising from

[60] UNOSAT_A3_Multan_200k_portrait_20150727.pdf

the expected increase in frequency and intensity of extreme weather events such as storms, floods and droughts.[61] As such, the proposed development would not only require extensive flood protection works but also ensuring water resources in adjacent areas and downstream are not effected or contaminated.

The policy requires protection of groundwater through regulatory frameworks, sustainable ground water exploitation and avoiding excessive pumping. Undertaking recycling of wastewater through proper treatment and reuse, for example in agriculture, artificial wetlands and groundwater recharge. The feasibility study estimates 24 tube wells will be required drawing about 3.86 million gallons per day. A Combined Effluent Treatment Plant (CETP) is proposed with discharge into the river and adjacent agricultural areas. Recycling, reuse or steps to ensure groundwater recharge in line with policy should be incorporated in the feasibility report. Sustainability of the groundwater supply over the long term also should be carefully evaluated.

Plans for solid waste management and hazardous /toxic wastes should also be in line with the policy which requires proper collection, segregation, recycling, and ensuring dump sites and land fill sites are resilient to climate change risks.[62]

7.1.3. AJK SEZ Legal and Regulatory Framework and Implementation Challenges

The AJK SEZ Act of 2016[63] provides for the setting up and operations of special economic zones in AJK and specifies a legal and regulatory framework to encourage domestic and international investors for promotion and establishment of industrial infrastructure. It is basically an adaptation of Pakistan's SEZ Act of 2012 as amended in 2015. The Federal SEZ Act is under review, as it requires streamlining and clarity of responsibilities and approval processes. The AJK Act may have to be amended accordingly.

The revised Act should incorporate the international best practices and lessons learned – some of the most important and adverse factors being cumbersome procedures and controls, subsidized rent and other services, inadequate administrative structures or too many bodies involved in zone administration, poor zone development practices – inappropriately designed or over-designed facilities, inadequate maintenance and promotion practices, lack of coordination between the several stakeholders.

Best practices for SEZs recommend that: enterprises should be allowed to co-locate within the same area; ensure the SEZ regime is flexible; promote private sector rather than public sector development of the zone; develop appropriate legal, regulatory and institutional frameworks to ensure adequate regulation and facilitation; provision of performance-based incentives; and fostering vertical and horizontal linkages in the region. The role of private sector should be maximized in service provision and

[61] AJK Climate Change Policy 2017, pg. 7,37
[62] AJK Climate Change Policy 2017, pg. 13,26,36
[63] AJK Act XV of 2016

management and SEZs should be able to play a continuing role to incubate and accelerate policy reform. [64,65,66]

The current draft version of the feasibility and PC-I adopts a 'traditional' industrial estate approach for the development, operation and management of the proposed SEZ. The AJK SEZ Act 2016 and its legal and regulatory framework should be reflected in the draft PC-I to ensure the selection, approvals, and SEZ management, and other processes are in compliance with the Act.

However, the implementation of the policy may be a challenge: institutions are yet to be set up; *the rules and regulations for SEZs* that will be applicable under the Act *need to be finalized and approved*; and capacity needs to be developed to ensure proper coordination and facilitation as envisaged under the SEZ Act.

The AJK SEZ Act of 2016 as it stands currently is quite complex and difficult to navigate, with roles and responsibilities overlapping across multiple tiers (See Annexure 1 which shows various roles and responsibilities under the SEZ Act). The cumbersome procedures need to be streamlined, and rules and regulations required under the Act will have to be carefully drafted, to ensure a truly 'one stop' 'one window' interface for developers and zone enterprises.

7.2. Existing Industrial Estates in AJK – A Critical Review

Before commencing a review of the draft feasibility study/PC-I, a brief analysis of the existing industrial estates in Mirpur was carried out in order to gain an insight on the past performance of efforts to promote industrial estates in AJK.

Six industrial estates have been set up in AJK between 1965 and 1998, and the seventh one at Dudyal is in the process of development. Little success has been achieved in attracting investors despite several incentives – exemption from sales tax for a period of five years from the date of production; safe and secure environment; free transaction of principal amount and profits without prior permission of the Government for foreign investors; industrial plots allotted for 99 years on lease basis at nominal rates and easy installments; and provision of loan facilities in local as well as foreign exchange [67].The six established industrial estates have a planned 811 industrial plots of which only 666 (82 percent) have been allotted. Of the allotted plots 23 percent are lying vacant. Total installed units are only 245 (37 percent of allotted), units operational in the industrial estates stand at a low of 23 percent of planned, and 23 percent of the installed units are classified as sick units. Total labor employment is reported to be 4,554 or on an average 25 persons per industry.[6869] Details are placed in Annexure 2.

[64] Special Economic Zones Performance, Lessons Learned, and Implications for Zone Development, The World Bank 2009
[65] Special Economic Zones, An Operational Review of their Impacts, The World Bank 2017
[66] Developing Special Economic Zones (SEZS) in Pakistan, Strategic Framework, Assessment Tool and Policy Recommendations for Implementation, ADB Draft 2018
[67] Investment booklet, Industries Department, AJK industries.ajk.gov.pk/source/InvestmentBooklet.pdf
[68] AJK Statistical Year Book 2018, Planning & Development Department GoAJK
[69] Presentation to ADB mission on AJK Industrial and Trade Policy, 16 May 2019

Box 6 President MCCI presser

AJK Industries in Trouble

"President of MCCI and Jammu Kashmir Joint Chamber of Commerce & Industry ... the industrial estates in Mirpur division had turned into the graveyards because of the lack of the basic infrastructural facilities and mismanagement on the part of the concerned functionaries besides other stakeholders.

Mujahid called upon the AJK government to move forward on revolutionary grounds to ensure the survival of the rapidly collapsed industrial sector in AJK by ensuring the early supply of the much need amenities including uninterrupted power supply, natural gas and water to the industrial estates.

He pointed out that there was a total of 200 industrial units in AJK, mostly in the Mirpur and Bhimber districts. Of these units, over one hundred units were lying sick, since long, because of lack of the required infrastructure and other facilities."

The Nation, Feb 8, 2019

Looking specifically at the industrial estates in Mirpur and the adjoining Bhimber districts, the industrial estates in these two districts are by far the largest (96 percent) of the total of all industrial estates in AJK—primarily due to this area being adjacent and with good connections to national highways in Pakistan and being relatively flatter terrain.

The two existing industrial estates in Mirpur (Small Industrial Estate Estd.1965, and New Industrial Estate Estd.1998) and one in Bhimber (Estd.1978) have 638 plots of which 507 (79 percent) have been allotted. Only 151 industries (30 percent of allotted) have been established on the allotted plots. 76 percent of the installed units are operational and 24 percent are recognized as being sick units. Comparing with the overall planned number of units, only 115 (18 percent of planned) units are operational. The three industrial estates have only provided 4,126 (91 percent of all employment in industrial estates in AJK) employment opportunities with an average number of 36 employees per industrial unit.

The status of Bhimber industrial estate is alarming with only 10 functional units out of a planned 118.

The type of industries set up in these two districts is shown in Annexure 3. The majority of industries are related to plastics, foam, packaging, steel re-rolling, mobile phones, and textiles.

The low number of industries set up in the industrial estates, which have been set up decades ago, highlights the risk of public sector led development and management. It is reported that out of a planned PKR 9.4 billion an investment of only PKR 3.6 billion has been made to date. The government has been unable to attract investors because of primarily the lack of quality infrastructure, non-provision of promised utilities, poor maintenance and management of the estates and overarching cumbersome rules, procedures, legal systems and dispute resolution mechanisms.

7.3. Engaging the Diaspora – An opportunity for industrial development in AJK?

One of the opportunities for success of the proposed MSEZ is stated to be the prospective engagement of the Kashmiri diaspora.[70] The remittances of AJK diaspora are largely used for consumption purposes and not for industrial development. A recent research[71] conducted asked members of the Kashmiri diaspora to rank perceived impediments to starting up business in their own country of origin. *The* results indicated that the main impediments perceived[72] by the Kashmiri diaspora community are issues that would be associated with regional governments and government representatives at all levels, rather than wider geo-political conflict. Diaspora engagement also showed that hesitancy was based on experiences related to perceived political risks (such as lack of sufficient guarantee for investment), structural obstacles (such as the idea that investment would have to be rubber-stamped in Islamabad) and logistical factors based on negative experiences.

Logistical and infrastructural issues - are also mentioned as obstacles for investment, with diaspora communities wary of the lack of a dry port in AJK (increasing export costs) and lack of constant energy.

The ranking of impediments found in the study shows, that diaspora is willing to work around infrastructural issues, *prioritizing legal and governance-related fears* as impediments to investment. The findings of this study lend support to the recommendations of the global experience of developing SEZs – having streamlined procedures, efficient dispute resolution mechanisms and legal system, tailored incentives, transparency, business friendly policies and facilitation, and good infrastructure. A MSEZ would require all these elements to be in place in order to capitalize on the opportunity of engaging the diaspora to play a role in the industrialization process.

[71] Rejuvenating the economic environment in Jammu & Kashmir, A. Kamal, D. Sengupta, P.S. Manhas, S. Khan, 2013

[72] Perceptions of structural barriers such as corruption and nepotism, a tax system that unduly benefits the Federal consolidated fund in Pakistan and two distinct government practices of the Pakistan and AJK governments, in which sales tax goes from Jammu and Kashmir-based businesses back to the Federal Board of Revenue (FBR) for redistribution to provinces of Pakistan other than AJK is considered a slight by the British Kashmiri diaspora.

Table 11 Diaspora ranking of impediments to investment

Impediments	Mean Score
Weak legal system	2.86
Too few incentives provided by governments	2.75
Cumbersome government bureaucracy	2.67
Government corruption	2.57
Absence of pro-business government	2.5
Unclear who has the authority to approve or facilitate foreign investment	2.5
Lack of specific investment opportunities communicated to smaller overseas investors	2.25
Internal strife	2.25
Poor physical infrastructure	2.17
Weak financial system	2.08
Hostilities with neighboring countries	2.06
Problems with labor / labor laws	1.83
Lack of UK government support for investment in Kashmir	1.83

7.4. Review of the MSEZ feasibility study and Draft PC-I

7.4.1. Assumptions and Data

The feasibility report and draft PC-I is quite detailed and covers technical, socio-economic, market demand supply gap analysis, overview of the industrial sector, human resources availability, environmental, and financial aspects of the MSEZ.

The document has been thoroughly reviewed and several observations have been made which should be considered while preparing a final document. More importantly the legal and regulatory framework of the SEZ Act 2016 should be embedded in the PC-I as once a PC-I is approved, there is little room to experiment or deviate.

The draft PC-I covers only the costs of the MSEZ area's development and does not include the costs for external infrastructure and upgrading of linkages to the proposed MSEZ such as roads, power, gas, etc.

In general, when comparing the assumptions regarding costs and benefits with those in the actual analysis it seems that costs are understated and benefits are overstated. For example, cost of water supply does not match with the total requirement calculated in the PC-I, costs for Environmental Management Plan (EMP), Combined Effluent Treatment Pant (CETP) capital and operating costs, flood protection bunds etc., are not included; and operating & maintenance expenses and establishment expenses & overheads are not fully explained.

Several other discrepancies were observed, such as a) the total area in acres mentioned in the PC-I and land use tables is inconsistent; b) the sale price per acre for industrial plots is assumed in the PC-I as PKR1.2 Mil/acre while in the notes to the economic analysis it is stated as PKR1.69 million/acre. The price for commercial plots is assumed as PKR5 million/kanal*. On the other hand, the revenues calculated show that a much higher price/acre has been adopted - maximum possible revenue from land lease/sale of plots is PKR854 million using the aforementioned proposed lease

prices, while total revenue from sales taken in analysis is PKR3,789 million; c) Assumptions stated regarding phasing of the project and sale of plots is not reflected in the economic analysis. For example, the capital expenditure is shown being incurred in one year whereas construction phasing mentioned in the PC-I is two years.

*Standard unit of land measurement in Pakistan & AJK: 1kanal = 500sq.yds.,1 marla = 100sq.yds.

Since the document under review is a draft, the above issues can be addressed and a final document submitted for approval. The next section presents a detailed review of the economic analysis.

7.4.2. Review of the MSEZ Draft PC-I Economic Analysis

The economic analysis presented in the draft PC-I is based on financial costs of PKR3,832 million and economic costs of PKR3,449 million. The results provided in the draft PC-I are summarized below.

Table 12 Economic Analysis Results - Draft PC-I

Discount rate	12%
Present value of costs (Mil)	3,114.9
Present value of Benefits (Mil)	3,318.42
Net Present Value	203.43
Benefit/Cost Ratio	1.07
Financial rate of return	10%

The economic analysis shown in Annexure I of draft feasibility study/PC-I is not correct. Ignoring the discrepancies identified in the review above - phasing of capital investment, the overstated revenues and understated O&M costs, etc. (as compared to the assumptions) and keeping the capital costs and cash flows provided in the draft feasibility/PC- I, the corrected results are as follows:

Table 13 Economic Analysis Results - Draft PC-I corrected results

Discount rate	12%
Present value of costs (Mil)	3,469.78
Present value of Benefits (Mil)	3,318.42
Net Present Value	-151.36
Benefit/Cost Ratio	.956
Internal rate of return (IRR)	10.45 %

The project does not seem to be feasible based on the data and assumptions in the draft PC-I. A sensitivity analysis was carried out on the draft PC-I economic analysis, which shows that total costs would have to be reduced by 10 percent in order to make the project feasible, or benefits would need to be increased by 10 percent. Similarly, if costs go up by 20 percent, the benefits need to go up by 30 percent for the project to be viable.

Table 14 Sensitivity Analysis - Draft PC-I

	NPV	Costs						
	(151.363)	0.7	0.8	0.9	1	1.1	1.2	1.3
Benefits	0.7	(105.95)	(452.93)	(799.91)	(1,146.89)	(1,493.87)	(1,840.84)	(2,187.82)
	0.8	225.89	(121.09)	(468.07)	(815.05)	(1,162.02)	(1,509.00)	(1,855.98)
	0.9	557.73	210.75	(136.23)	(483.20)	(830.18)	(1,177.16)	(1,524.14)
	1	889.57	542.59	195.62	(151.36)	(498.34)	(845.32)	(1,192.30)
	1.1	1,221.41	874.43	527.46	180.48	(166.50)	(513.48)	(860.46)
	1.2	1,553.25	1,206.28	859.30	512.32	165.34	(181.64)	(528.61)
	1.3	1,885.10	1,538.12	1,191.14	844.16	497.18	150.21	(196.77)

Breakeven is achieved if costs are decreased by 4.4 percent or benefits are increased by 4.6 percent. Sensitivity Analysis – Draft PC-I Summary results: Details of the analysis are provided in Annexure 5.

7.4.3. Revised MSEZ PC-I - Estimated Capital Costs and Benefits

7.4.3.1. Updated Project Costs

A detailed review of the feasibility report and draft PC-I indicates that several costs were not captured in the project estimates or the basic assumptions were not explained in detail. Based on these findings, a revised estimate of capital expenditures and other costs has been prepared, details of which are placed in Annexure 5. Besides the PC-I document and updates provided by the P&DD GoAJK, several external sources were also used for estimating the costs. References to external sources are provided in Annexure 6. In preparing these estimates the approach was taken to present costs for development of infrastructure external to the SEZ separately from the internal SEZ development costs. The revised project costs are summarized below.

Table 15 Summary of Revised PC-I Cost Estimates

	Base Case	Cost -10%	Benefit +10%	Cost +10%	Breakeven: Cost -4.4% or Benefit +4.6%
Discount Rate	12.00%	12.00%	12.00%	12.00%	12.00%
Benefit Cost Ratio (B/C)	0.96	1.06	1.05	0.87	1.000
IRR (Internal Rate of Return)	10.45%	14.19%	13.82%	7.27%	12.000%
Net Present Value (NPV)	(151.36)	195.62	180.48	(498.34)	0.000

AJK Government (Costs for developing external linkages, utilities etc., for MSEZ)	**PKR Million**
Cost of 132KV transmission line double circuit to site	240.00
Sub stations 132/11KV to doorstep of SEZ, as per SEZ Act	400.00
Road Network Improvement to SEZ, dualization	4,400.00
Railway track up-gradation, does not seem feasible as costs could be @500~700 million /km and up-gradation might involve track up to Dina and improvements at Dina to handle cargo.	-
Gas transmission line enhancement/extension	252.00
Construction of flood Protection bunds	413.03
Land Acquisition & resettlement for 576 acres only.	3,543.55
Subtotal PKR Million (A)	**9,248.58**
Developer/ Public Sector/PPP – MSEZ Internal Development Costs	**PKR million**
Road & protection works	1,888.70
Waste water & Sewerage System	361.67
Water Supply System	205.38
Water supply system - missing OVHD reservoir costs	40.90
Cost of remaining tube-wells (24 planned, 3 taken in estimates)	504.00
RCC Bridges (4 Nos)	381.24
Electrification Works Internal	180.30
Construction of RCC Retaining Wall	80.60
Administration & public buildings, mosque, clinic, vocational training center, fire brigade station, residential colony, motel etc.	1,099.13
Combined effluent Treatment Plant	50.00
Solid Waste Management. Landfill site development	15.57
Firefighting equipment, fire brigade vehicles	50.00
Gas piping installation internal network	150.00
Telecommunication internal network	100.00
Sub Total Developer Capital Costs PKR Million(B)	**5,107.48**
Miscellaneous Development Costs	
Phasing for internal civil works: 1st year: 41.84 %, 2nd Year 58.16 %	
Year wise costs: 1st Year Rs. 2,224.13, 2nd Year Rs. 3,091.24	
Escalation @ 6.5 % on second year costs	193.08
Subtotal Development costs including PKR Million(C)	**5,300.56**
Consultancy charges percent of (B)	153.22
Advertisement costs	5.00
Subtotal PKR Million(D)	**5,458.78**
Contingencies [Physical] on (B)	510.75
Total development cost within SEZ PKR Million (E)	5,969.53

Total development cost of SEZ including external linkages, utilities, land etc., (A+E)	15,218.11
Economic costs for development within SEZ	**5,372.58**
Economic cost for SEZ including developing linkages, utilities, land etc.	**13,696.30**

Phasing for the project given in the draft PC-I assumes all the development works (external /internal) would be completed within two years, which is highly ambitious, as several stakeholders are involved, and availability of funds may pose a high risk for timely completion of the SEZ.

7.4.3.2. Updated Costs & Revenues - Project Operations, Management and Maintenance

As shown earlier in the economic analysis based on the draft PC-I assumptions and costs, the project appears to be not feasible.

A closer evaluation of the underlying assumptions and basis for costs and revenue streams was carried out. The detailed review indicates that the revenues from the project in the draft PC-I, in particular the industrial and commercial land lease prices, were perhaps not based on actual market surveys. The assumptions for operating and maintenance costs and the price for lease/sale of plots in the draft PC-I have not been well documented or supported. Projected O&M costs and revenues have been revised using:

a) Desktop survey of prices of industrial plots in the region[73]
b) Desktop survey of prices of commercial plots in the region
c) Cost & Revenues of Management and Operations including HR and operational expenses
d) Water supply, HR and operational costs
e) Common Areas and SEZ Maintenance (CAM), HR, routine & periodic maintenance cost estimates
f) Others – Vocational training facility, trucking terminal HR and operating costs

The revised costs for administration, SEZ management, maintenance staff, security services, emergency services and fire brigade etc., are based on staffing charts and estimates for running and operating expenses. Details may be seen in Annexure 7, Tables A-7-1 through A-7-13.

7.5. Revised MSEZ PC-I Economic Analysis–Using a Developer's and a Government's Perspective

Two scenarios have been evaluated. *Scenario 1* looks at SEZ internal development costs only, and *Scenario 2* takes into account the overall cost of developing the SEZ including all external costs. *Scenario 1* is looking at the SEZ from the perspective of a potential developer/operator in which they invest in developing, managing and operating the SEZ (all SEZ external costs are ignored in the analysis) while *Scenario 2* represents the economic analysis from the Government's Perspective. This scenario looks at the overall costs involved for developing the SEZ including providing all external infrastructure, land acquisition and other costs.

[73] On-line desk research zameen.com and Olx.com

7.5.1. A Developer's Perspective, Scenario 1 Assumptions

The assumptions in the economic analysis for Scenario 1 (base case) are shown below:

Table 16 Assumptions Scenario 1 Economic Analysis (Base Case)

Assumptions					
Discount rate		12%			
Project CAPEX Economic Cost (PKR million)		5,372.58			
		Yr0	Yr1		
Phasing Capital costs (as per draft PC-I)		41.84%	58.16%		
Infrastructure major maintenance as percent of CAPEX		1,611.77	30%		
		Yr15	Yr16		
		40%	60%		
Escalation/annum - [Using constant prices]		0.0%			
Project Costs & Phasing					
Phasing (Land, costs & revenues)		**Yr1**	**Yr2**	**Yr3**	**Yr4**
		10%	60%	80%	100%
		10%	50%	20%	20%
Water supply (phasing as per development)		**Yr1**	**Yr2**	**Yr3**	**Yr4**
Total Tube-wells	24	3.00	15.00	20.00	24.00
Operating cost/ tube-well /annum	0.86	2.583	12.915	17.22	20.664
Operating cost/ annum	20.66				
Management & Operations	**PKR Million**				
Costs in full year of operations	98.12	9.81	58.87	78.50	98.12
Common Area & SEZ Maintenance					
CAM Costs in full yr. of operations	53.26	5.33	31.96	42.61	53.26
Other Costs - training school and truck terminal	8.94	0.89	5.36	7.15	8.94
Total O&M costs	160.32	16.03	96.19	128.26	160.32
Total O&M costs including water Supply	180.98				
Project Revenues & Phasing					
Land Sale/lease					
Total Area Acres	576				
	Acres	**Kanals**		**Rs'000/K**	**PKR Million**
Industrial	403.19	3,225.52		2,520	8,128
	Acres	**Kanals**	**Marlas**	**Rs'000/Marla**	**PKR Million**
Commercial	4.31	34.48	689.60	728	502
Totals	407.50				8,630
Industrial plot prices	17%	(%-tile of sample prices)			

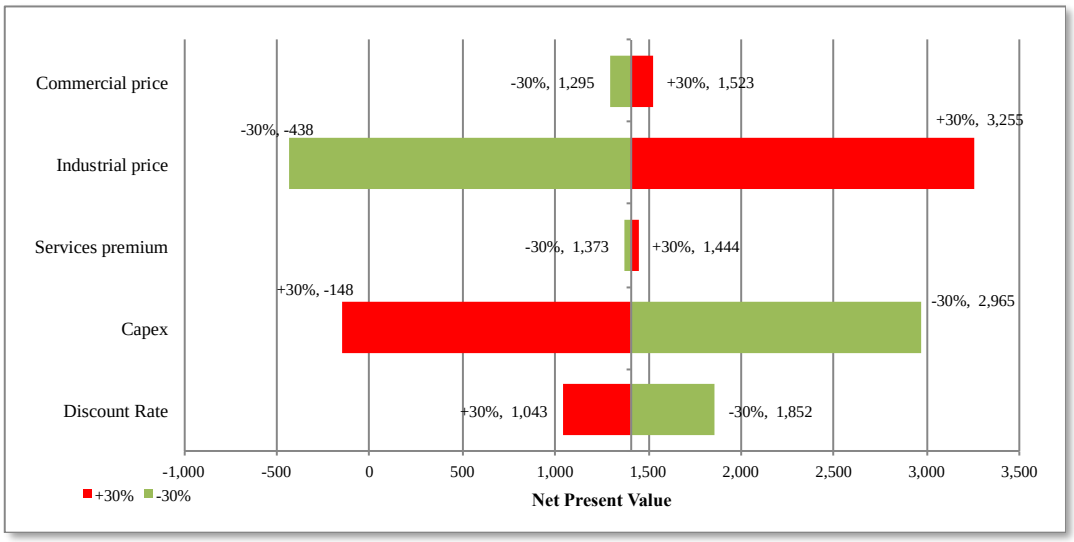
Commercial plot prices	35%	(%-tile of sample prices)			
Price of sampled indus. plots Rs'000/K	Max	25,000	Min	590	
Price of sampled of comm. plots /Marla	Max	16,294	Min	90	
		Yr1	**Yr2**	**Yr3**	**Yr4**
Phasing of Revenues from Land lease /sale	8,630	863	4,315	1,726	1,726
Service premium, % over cost of services	5.0%				
Revenues from Operations & Services	**PKR Million**				
Management & Operation charges	103.03				
Water Supply charges	21.70				
Common Areas & SEZ Maintenance	55.92				
Others - Training school & Truck terminal	9.39				
Total Revenues	**190.03**				
Salvage Value (% of capital costs)	40%				

The phasing has been kept in line with the proposed development of the project as provided in the draft PC-I. The significant difference from the draft PC-I is in the proposed prices for lease/sale of industrial and commercial land, which are now based on regional market surveys. The assumed base case prices are conservative; for example, 65 percent of market prices for commercial plots are higher than the PKR728,000/marla base price used in the analysis.

7.5.2. Economic Analysis from a Developer's Perspective

The economic analysis has been carried out for a period of 25 years. The project is economically feasible with NPV of PKR 1,408.5 million IRR of 29.2 percent and B/C ratio of 1.22. The effect of several independent variables on the NPV was also evaluated. The figure below shows that the key variables are the CAPEX and the lease/sale prices of the industrial plots. For example, if the industrial lease prices are varied by -/+ 30% then the NPV varies from PKR-438 Million to PKR3,255 million Similarly, if CAPEX varies by -/+ 30% NPV varies from PKR 2,965 Million to PKR -148 million. Variations in commercial land prices, premium on services, and discount rate do not significantly influence the outcomes.

Figure 48 Scenario 1, Effect of selected variables on NPV



7.5.3. Scenario 1 - Sensitivity Analysis

A sensitivity analysis was carried out on the base case assumptions by varying overall project costs and revenues. In the table below it can be seen that, for example, if the costs go up by say 30 percent then to achieve a positive NPV the revenues have to increase by at least 10 percent. Similarly, if revenues drop by 30 percent, then costs need to decrease by at least 20 percent for the project to remain viable. Breakeven points are achieved if overall revenues decrease by 18 percent or costs go up by 2 percent.

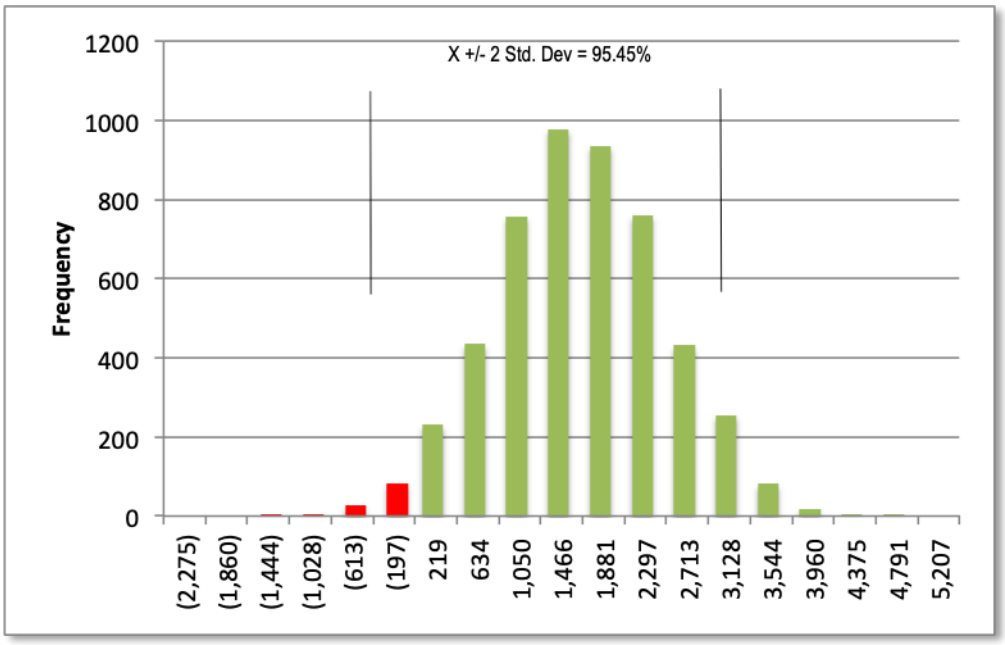
Table 17 Sensitivity Analysis on costs and revenues

	NPV	Cost factor										
	1,408.53	.700	0.800	0.900	1.000	1.100	1.200	1.300	1.400	1.500	1.600	1.700
Higher factor = more Revenue	0.700	986	348	(290)	(928)	(1,566)	(2,203)	(2,841)	(3,479)	(4,117)	(4,755)	(5,393)
	0.800	1,765	1,127	489	(149)	(787)	(1,425)	(2,063)	(2,700)	(3,338)	(3,976)	(4,614)
	0.900	2,543	1,906	1,268	630	(8)	(646)	(1,284)	(1,922)	(2,560)	(3,198)	(3,835)
	1.000	3,322	2,684	2,046	1,409	771	133	(505)	(1,143)	(1,781)	(2,419)	(3,057)
	1.100	4,101	3,463	2,825	2,187	1,549	911	274	(364)	(1,002)	(1,640)	(2,278)
	1.200	4,880	4,242	3,604	2,966	2,328	1,690	1,052	414	(223)	(861)	(1,499)
	1.300	5,658	5,021	4,383	3,745	3,107	2,469	1,831	1,193	555	(83)	(720)
	1.400	6,437	5,799	5,161	4,523	3,886	3,248	2,610	1,972	1,334	696	58
	1.500	7,216	6,578	5,940	5,302	4,664	4,026	3,389	2,751	2,113	1,475	837

7.5.4. Scenario 1 – Monte Carlo simulation and probability of loss

In addition to the sensitivity analysis, a Monte Carlo simulation with 5,000 random trials was performed to estimate the probability of a loss on the investment. A histogram showing the distribution of NPV results within a 95-percentage confidence interval is provided below.

Figure 49 Histogram of Net Present Values from Monte Carlo simulation (Scenario 1)



The results from the simulation show that, on average, the project has an NPV of PKR1,466 Million with an IRR of 29.1 percent and B/C ratio of 1.23.

Table 18 Scenario 1 - Summary results of Monte Carlo simulation

	Max	Min	Average	Std. Dev
NPV	4,646	(1,648)	1,466	831
IRR	63.5%	-1.8%	29.1%	9.53%
B/C	1.79	0.80	1.23	0.14

The probability of loss[74] on this project is less than 4 percent, provided that the industrial and commercial lands are leased out at a 17th and 35th percentile price point of the market sample prices respectively. The percentile price points were selected to keep the probability of loss to be less than 5 percent. The conservative pricing level provides comfort as it offers a fairly large upside potential to secure even better returns and reduce the probability of loss to almost nil.

NPV	**1,418.88**
IRR	28.97%
NPV check @IRR =	-
B/C ratio	1.217
Probability of loss	3.78%

7.5.5. The Government's Perspective, Scenario 2 Assumptions

The assumptions for this scenario are the same except for the CAPEX and the industrial and commercial land lease/sale prices. Summary of assumptions are shown in the following table.

[74] Calculated as = percent of total negative NPV values/total NPV in 5,000 simulations

Table 19 Assumptions Scenario 2 Economic Analysis (Base Case)

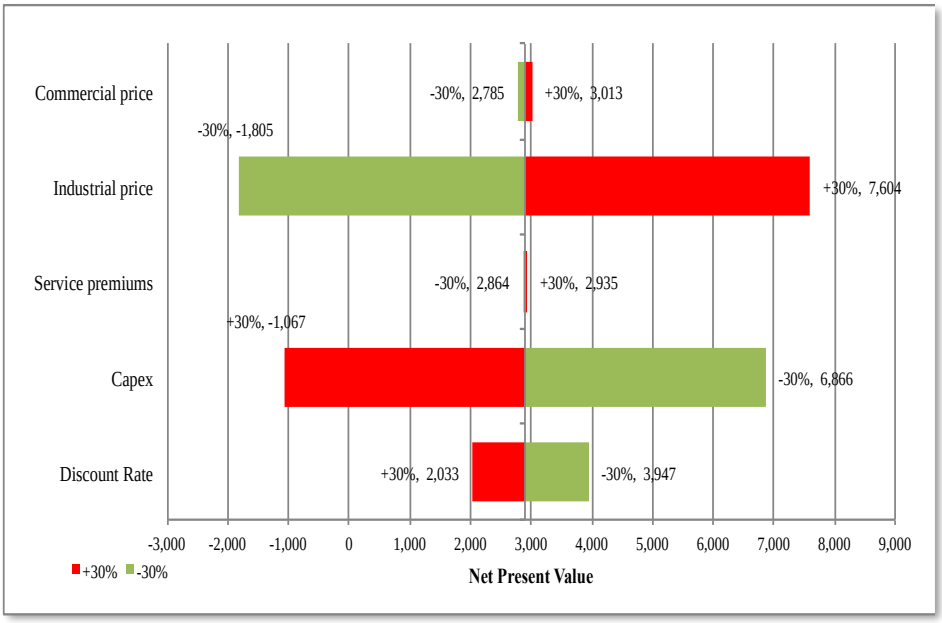
Assumptions						
Discount rate			12%			
Project CAPEX Economic Cost (PKR Million)			13,696.30			
			Yr0	**Yr1**		
Phasing Capital costs (as per draft PC-I)			41.84%	58.16%		
Infrastructure major maintenance as % of CAPEX			4,108.89	30%		
			Yr15	Yr16		
			40%	60%		
Escalation/annum – [Using constant prices]			0.0%			
Project Revenues & Phasing						
Land Sale/lease						
Total Area Acres	576					
		Acres	**Kanals**		**Rs'000/K**	**PKR Million**
Industrial		403.19	3,225.52		6,420	20,708
		Acres	**Kanals**	**Marlas**	**Rs'000/Marla**	**PKR Million**
Commercial		4.31	34.48	689.60	728	502
Totals		**407.50**				**21,210**
Industrial plot prices		37%	(%-tile of sample prices)			
Commercial plot prices		35%	(%-tile of sample prices)			
Price of sampled indus. Plots Rs'000/K		Max	25,000	Min	590	
Price of sampled of comm. Plots /Marla		Max	16,294	Min	90	
			Yr1	**Yr2**	**Yr3**	**Yr4**
Phasing of Revenues from Land lease/ sale		21,210	2120.9	10,604.8	4,241.9	4,241.9

7.5.6. Economic Analysis of MSEZ - Overall Project Costs, the Government's Perspective

In scenario 2, the project is economically feasible for the base case with an NPV of PKR 2,899 million IRR of 26.27 percent and B/C ratio of 1.201.

As in scenario 1, the key variables effecting NPV are the CAPEX and the lease/sale prices of the industrial plots. The figure below shows the effect of selected variables on the NPV. For example, if industrial plot lease prices are varied by -/+ 30 percent then the NPV varies from -PKR-1,805 million to PKR 7,604 million. Variations in commercial land prices, premium on services, and discount rate do not significantly influence the outcomes.

Figure 50 Scenario 2, Effect of selected variables on NPV



7.5.7. Scenario 2 - Sensitivity Analysis

A sensitivity analysis was carried out on the base case assumptions by varying overall project costs and revenues. In the table below it can be seen that if the costs go up by say 30 percent then to achieve a positive NPV the revenues have to increase by 10 percent. Similarly, if the revenues drop by 30 percent then the project costs would have to decrease by 20 percent for the project to remain feasible. Breakeven points are achieved if the revenues decrease by 16.7 percent or costs go up by 20.1 percent

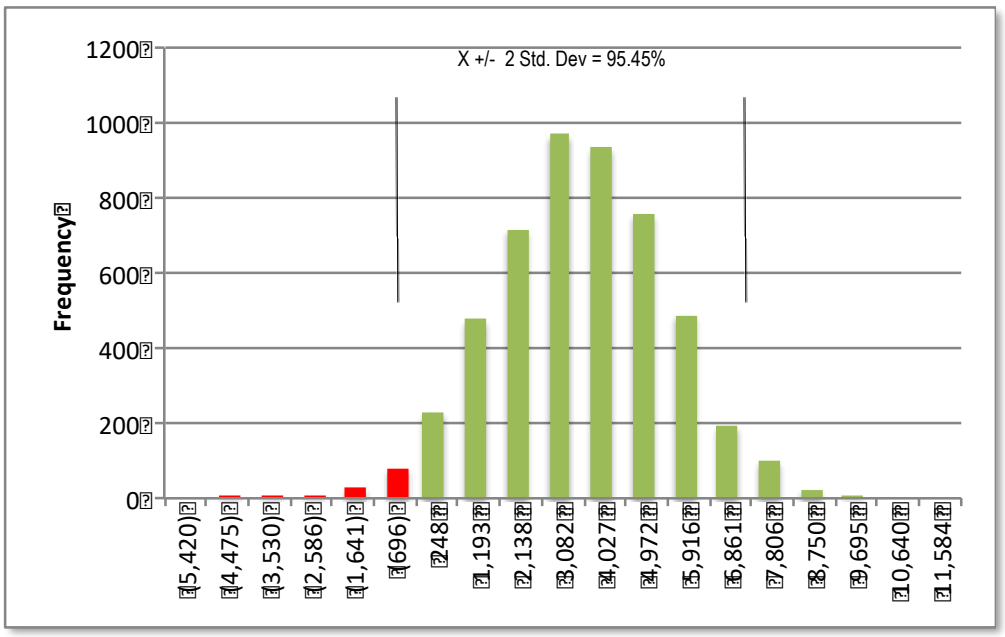
Table 20 Sensitivity Analysis Scenario 2 (Base Case)

	NPV	Cost factor									
	2,899	0.700	**0.800**	**0.900**	**1.000**	**1.100**	**1.200**	**1.300**	**1.400**	**1.500**	**1.600**	**1.700**
Higher factor = more Revenue	0.700	2,030	588	(853)	(2,295)	(3,736)	(5,178)	(6,619)	(8,061)	(9,502)	(10,944)	(12,385)
	0.800	3,761	2,320	878	(563)	(2,005)	(3,446)	(4,888)	(6,329)	(7,771)	(9,212)	(10,654)
	0.900	5,492	4,051	2,610	1,168	(273)	(1,715)	(3,156)	(4,598)	(6,039)	(7,481)	(8,922)
	1.000	7,224	5,782	4,341	2,899	1,458	16	(1,425)	(2,867)	(4,308)	(5,750)	(7,191)
	1.100	8,955	7,514	6,072	4,631	3,189	1,748	306	(1,135)	(2,577)	(4,018)	(5,460)
	1.200	10,687	9,245	7,804	6,362	4,921	3,479	2,038	596	(845)	(2,287)	(3,728)
	1.300	12,418	10,977	9,535	8,094	6,652	5,211	3,769	2,328	886	(555)	(1,997)
	1.400	14,150	12,708	11,267	9,825	8,384	6,942	5,501	4,059	2,618	1,176	(265)
	1.500	15,881	14,440	12,998	11,557	10,115	8,674	7,232	5,791	4,349	2,908	1,466

7.5.8. Scenario 2 – Monte Carlo simulation and probability of loss

The distribution of the calculated NPVs from the Monte Carlo simulation model, which randomly varies the project costs and revenues, is shown in the figure below. The model assumes a normal distribution of variations in costs and revenues.

Figure 51 Histogram of Net Present Values from Monte Carlo simulation (Scenario 2)



The simulation gives an average NPV of PKR3,082 Million an IRR of 26.6 percent and a B/C ratio of 1.21.

Table 21 Scenario 2 - Summary results of Monte Carlo simulation

	Max	Min	Average	Std. Dev
NPV	9,271	(5,168)	3,082	1,889
IRR	65.14%	-1.35%	26.6%	8.95%
B/C	1.88	0.72	1.21	0.14

The probability of loss[75] on this project is about 5 percent, provided the industrial and commercial lands are leased out at the 37th and 35th percentile value of the market prices respectively. The percentile price points were selected to keep the probability of loss to be about 5 percent

Sample Result: NPV, IRR and B/C [Monte Carlo Simulation]	
NPV	3,168.64
IRR	26.35%
NPV check @IRR =	0.00
B/C ratio	1.202

As in scenario 1, the lease/sale prices in the model for scenario 2 are also conservative and offer a large upside potential and comfortable margins that can minimize the probability of a loss on investment. Details of the economic analyses for scenario 2

[75] Calculated as = percent of total negative NPV values/total NPV in 5,000 simulations

may be seen in Annexure 9. The revised PC-I and feasibility study shows that the project is economically sound with a robust NPV and IRR in both scenarios.

7.6. Evaluation of MSEZ using ADB SEZ Strategic Development Framework and Assessment Toolkit

The framework toolkit evaluates an SEZ based on “Guiding Principles” and “Governance Frameworks” derived from global best practices which contribute towards the success or otherwise of SEZs.

The “Guiding Principles” include an assessment of: location; existing infrastructure; human resources; absolute fiscal incentives offered in the proposed SEZ; potential for horizontal and vertical linkages; and performance-based incentives if any for the SEZ.

The “Governance Factors” include an assessment of: macroeconomic reforms; streamlined procedures; zone monitoring and regulation; political commitment; peace and stability; and zone administration and management.

Annexure 10 provides details of inputs used in the assessment tool and the rank and score for each parameter. Comments are also provided on some of the input scoring factors, which may be useful in further refining the ADB SEZ assessment framework tool.

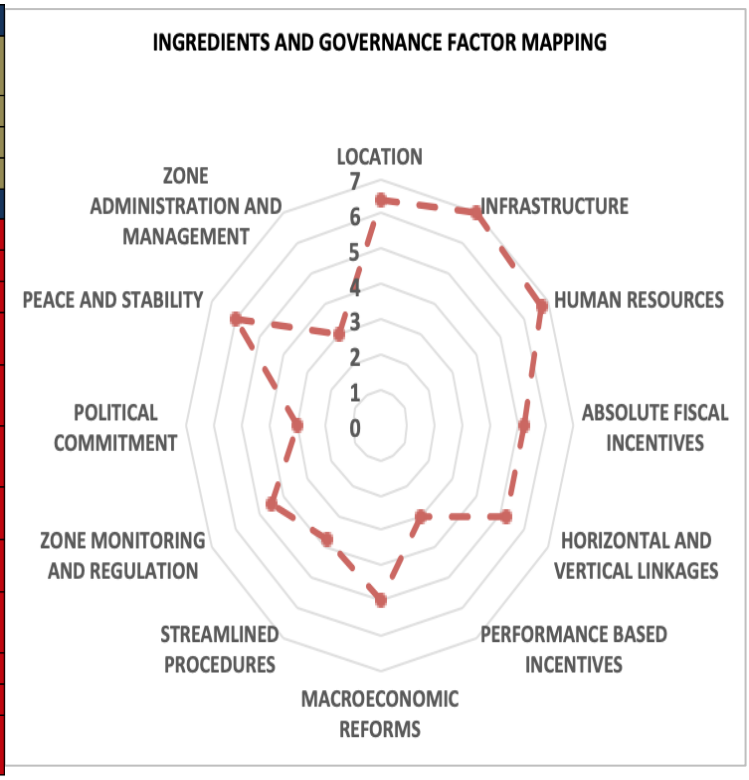
Overall the average rank score across all parameters for the proposed MSEZ is low at 4.91. Out of 12 parameters, AJK SEZ Mirpur ranks high for location; infrastructure; human resources; and peace & stability. Ranks are below par for all other eight assessment factors - fiscal incentives; horizontal and vertical linkages; performance-based incentives; macro-economic reforms; streamlined procedures; zone monitoring and regulation; political commitment; and zone administration and management.

The toolkit assessment results indicate the areas, which need to be looked at carefully, and identify the shortcomings that need to be addressed. The results of the toolkit are in line with the evaluation of the feasibility study and economic analysis.

Low scoring ‘Guiding Principles’ are absolute fiscal incentives, horizontal and vertical linkages and performance-based incentives. Amongst the ‘Governance Factors’, areas of concern are macroeconomic reforms, streamlined procedures, zone monitoring, political commitment and zone administration.

Figure 52 Results for MSEZ using the ADB SEZ Assessment Framework Tool

SEZ BACKGROUND	
Name of Special Economic Zone	Mirpur
Location (Province)	AJK
Location (City)	Mirpur
Category of Industries	Mixed
INPUTS	**RANK**
LOCATION	6.43
INFRASTRUCTURE	7
HUMAN RESOURCES	6.75
ABSOLUTE FISCAL INCENTIVES	5.25
HORIZONTAL AND VERTICAL LINKAGES	5.25
PERFORMANCE BASED INCENTIVES	3
MACROECONOMIC REFORMS	5
STREAMLINED PROCEDURES	3.75
ZONE MONITORING AND REGULATION	4.5
POLITICAL COMMITMENT	3
PEACE AND STABILITY	6
ZONE ADMINISTRATION AND MANAGEMENT	3



7.7. Action Plan - Challenges and the Way forward

The SEZs primarily target FDI and focus on export-oriented industries, while the approach presented in the draft PC-I seems to be the 'traditional' lease/sale of plots at below market rates, and providing subsidies and incentives that may be unsustainable in the long run and encourage rent seeking.

The execution of external and internal infrastructure and envisaged development would need both financing, timely approvals, allocation of budgets and timely releases if the project is to be completed within two to three years as envisaged in the PC-I. This in itself poses a great challenge due to multiple stakeholders involved across both the Governments of AJK and Pakistan.

With world-class development and professional management of the proposed SEZ, the project should deliver the expected returns. The proposed way forward is based on the review of the feasibility study and draft PC-I, and the findings from the ADB strategic development framework toolkit. The following actions are suggested:

i) The economic analysis in the PC-I should be based on market prices for industrial and commercial plots.
ii) The requirements of the AJK Climate Change Policy must be incorporated in the PC-I and costs of compliance included in project costs.
iii) The PC-I should clearly identify the zone development, zone administration and management arrangements, which have to conform with the AJK SEZ Act of 2016 and related rules. These include specifying the role of the BOA, the BOI, the AJK SEZ Authority, the SEZ committee, the SIP, and the developers.

iv) The 2016 SEZ Act and related rules should also be simplified; streamlined procedures are a key for the success of the MSEZ.
v) Capacity building of stakeholders within the GoAJK and the business community at large should be carried out through well-structured workshops and seminars. Stakeholders need to be provided training on the zone development, monitoring and administration, regulations, rules and the overall governance frameworks and administration processes for the SEZ. Visits to well performing SEZs overseas could be arranged as a part of these trainings. The traditional mindset regarding industrial zones needs to change.
vi) Exposure visits should be arranged for key stakeholders in AJK government and the leading members of the various AJK chambers of commerce and industry to other proposed CPEC SEZs, which are moving on a fast track.
vii) Development, management & operations of the MSEZ should be carried out by the private sector and not by the government.
viii) Experiences from past industrial estate ventures in AJK, and lessons learned should inform the design of incentive packages in the proposed MSEZ. A series of dialogues with the industrialists should be held to address existing concerns and promote the MSEZ.
ix) Performance based incentives for the MSEZ should be developed to curb rent seeking and speculative investments.
x) International investors may require the court of jurisdiction and arbitration to be outside of AJK /Pakistan. The current legal recourse processes are not geared to deal with international complex transactions. A step, which could alleviate the concerns regarding the prevalent judicial system and bottlenecks, would be to set up special commercial courts to deal specifically with SEZs.
xi) Across the board, political commitment has to be demonstrated through enhanced coordination with all stakeholders and timely placement of funds to meet all external development costs.
xii) Hiring transaction advisory services for supporting the government to engage international private sector entrepreneurs for developing, managing and operating the SEZ.

8. AJK's approach to industrialization, trading and tourism—proposals and costs

AJK is rethinking its economic growth while mainstreaming climate and disaster resilience. Summarizing the learning of this project, i.e. the 'rethink', the following approach is suggested for AJK.

Revitalizing the Tourism, Energy, and Data industries through skilling youth and developing small and medium enterprise, supported by financial services and women inclusion, while appropriately leveraging the special economic zones, can lead to sustainable growth in AJK.

The main purpose of this project was to provide a new approach to thinking about the AJK Industrial Policy; given the limited resources available for this work. The following is a summary of the approaches that emerge from the 'rethink'. It is hoped that the next engagement with AJK will expand the actual policy measure and institutional responsibilities

Approaches to rethinking industrial policy focusing on Data, Energy, and Tourism

8.1. Data as Industry

Data is itself becoming a booming industry globally due to the significant benefits it gives to the policy makers by pointing out the gaps and supporting targeted iterations performed for filling those gaps. AJK is a hydropower driven state with clean and cheap electricity, providing ideal climate for data industry. AJK has young and highly literate population that engages in IT and other social media activities. These characteristics are ideal for a data driven industry involving data centers and software houses.

8.1.1. Demand Side Measures for Promoting Data Industry

Demand side policies for promoting innovation, support and enhance the interest of innovations in the society. Such measures involve legislation for promoting consumer's confidence in buying the innovative goods. The demand side measures act as complements for supply side measures, for instance schemes funded by the public sector. Efficiency of the innovative data industry is determined by the effective nexus between demand side and supply side measures undertaken for this purpose.

Astonishingly, 90 percent of the data created globally in 2014 and 2015, remains underutilized as only one percent of it has been used by the private and public sector. The large volume of data that has been collected by the government remains underused, underappreciated and underdeveloped. There is a need to fill the vacuum of data availability and capacity of public servants to use and analyze the data.

8.1.1.1. Government as a Consumer of Data

There is a significant role of government in purchasing and using data for responsive and effective service delivery. The data which government requires as a consumer may include

a. Commercial data such as AJK government can use this data for address verifications.
b. Demand of transport agencies data for effective management of urban traffic.

b) Social media interactions data for understanding the sentiments of the citizens and reaching out to them for collective policy design measures.
c) Satellite images for monitoring the electricity provision through night light data
d) Education feedback data from the students of schools and colleges to improve the facilitation of learning tools and troubleshooting educational process.
e) Optimizing public transport routes by using the data of Uber and other private transport and taxi companies for matching the origins and destinations in peak and off-peak timings.

Even apart from the aforementioned areas where government can be a consumer of private data, there are many other sectors where government has the ability to spur the demand of data creating a market of data collection and storage. Private sector can be engaged and incentivized to perform rigorous data collection and construction of sustainable data centers for storage of data.

The data collection by the private sector is a rigorous task that can be performed by the large conglomerates and organizations using store audits, online and offline surveys, social media interactions and through their store and online sales. Moreover, the government of AJK can also enhance and improve data collection exercises if there exists a market failure for such data provision.

8.1.2. Supply Side Measures

Data driven industry requires effective provision of several resources which are not trivial and act as major supply side challenges. These challenges need to be addressed by the government to promote the innovation in the economy. The three broad supply side challenges requiring policy intervention are

(i). High speed and open internet

(ii). Ownership and control of data; incentives for sharing of data

High Speed and Open Internet

High speed internet and its consistent availability is the foremost supply side challenge for the government. Mobile broadband is of particular importance because mobile phones are now becoming the most leading means of collection as well as dissemination of data. A major boom to this data driven industry is the data piping for broadband internet that China has agreed to do by laying down 820 km long cable from Khunjerab to Rawalpindi under the CPEC project through Gilgit Baltistan and passing from AJK all the way to Pakistan.

8.1.2.1 Ownership and control of data; incentives for sharing of data

Barriers towards the free flow of data limits the effectiveness of data driven industry. Sometimes privacy is used as a cover for protecting data and other times there are security reasons and trade secrets. Free flow of data between sectors of the same economy is as important as flow of data between countries. Granting of property rights is one of the proposed solutions to eliminate free riding in data sharing and increasing the incentives for data collection, cleaning, curation and sharing.

The major supply side challenges for data sharing includes

- Incentives issues linked with initial fixed investment for data supply
- Limitations in data sharing
- Issues related to data portability

AJK government can initiate public-private partnerships for mutually sharing the upfront investment costs of setting up data centers and discouraging free riding of important data. AJK government can also improve the supply side measures for promoting data driven industry by first enhancing the efficiency of existing data collecting units in the PnD Department. The data collection process remains slow and inconsistent. Large number of socio-economic data is unavailable at district/tehsil/union council level that impedes the policy making analysis especially pertaining to social sectors.

8.1.2.2 Incentives for Data Driven Industry

Data centers around the globe are shifting from fossil fuel energy towards renewable energy such as solar, wind and hydro. This is not only due to cheaper costs but also as a matter of social responsibility for the large firms as their contribution towards the environment and protecting the eco-system. Data centers are also more sustainable and less prone to shutdowns if they are not connected to the national grid.

8.1.2.3. Data Industry-Exports and SEZ

AJK faces the barrier of being a landlocked state and hence has higher transportation costs for potential manufacturing exports due to expensive means of transport, i.e. air. However, IT exports do not require any mode of transport as they can travel freely on the airwaves. Thus, AJK becomes an ideal destination for the creation of another small Silicon Valley by attracting IT investment from Pakistan as well as the west because it can increase the competitiveness of IT firms by lowering their energy costs and in return, increasing their return to investments.

An even better incentive would be declaring the data centers as SEZs and providing them the incentives which are generally given to manufacturing sector. The status of SEZ can attract large investment from data companies because they will be benefitting from tax breaks, cheaper land and most importantly, cheap and green electricity.

8.2. Energy as Industry

AJK has undergone severe energy insecurity and shortage crisis along with other economic and social and mayhems. The government needs to focus on cheap, sustainable and consistent supply of energy. AJK's commercial and industrial sector have very small share in total energy consumption. For power sector, AJK hugely depends on its natural endowments i.e. water resources. Interestingly, the outreach of energy includes 93 percent of the total population in the region, however, inconsistent supply of electricity still remains a bottleneck for the economic growth.

Energy stimulates economic growth in two ways, i.e. first, it is itself an industry and creates significant amount of jobs and uplift the economic status of people, second, it is a major

ingredient for industrialization and services sector growth as in the times of mechanization, no industry could survive without consistent and sustainable energy.

8.2.1. Demand Side Measures

The government of AJK can itself create immense demand of energy while setting up data driven industry. The data industry consumes significant amount of electricity and its provision requires investment in hydro power sector. Similarly, the creation of SEZs and establishment of large scale and small-scale manufacturing industries would demand high level of electricity. Energy investment is the cornerstone of development and maximizing the economic benefit from hydropower resources is what AJK should be focusing on. The sector has immense potential albeit its existing share in power generation in the region and challenges it faces

8.2.2. Supply Side Measures

It is a fact that the energy resource development has the potential to bring prosperity to the region, not only by creating direct jobs, but much more through extensions of service delivery and indirect jobs. The government of AJK can increase the economic benefits of hydropower for development by providing stable fiscal and regulatory environment that would encourage efficient use of the resource. Difficult topography, which raises costs of electricity due to far flung areas, the cost of displacement or replacement of people, environmental problems related to big hydropower plants, unfair treatment and allocation for royalty, net hydel profits and water use charge (WUC) are issues that need to be addressed to attract further investment.

8.2.2.1. Developing Micro Hydel Power Projects

Then small distributed and cluster generation and localized distribution should be encouraged as they can help in lowering cost of electricity to the population, help diversify the local industrial base and boost innovation. This can help in cluster based industrial development where AJK can set up competitive industries. AJKPDO has identified 12 sites for small and micro hydropower plant in Poonch, Kotli, Bagh, Jhelum and Haveli.

8.2.2.2. Data Industry to Complement Energy Industry

The role of spatial data for AJK can help in identifying cluster and the policy action needed. For example, mapping of economic endowments of AJK districts show that Muzaffarabad is the most endowed district due to the huge 3361 Mega Watt potential of hydro power production and over 13 million tonnes of mineral resources followed by Kotli and Poonch. On the flip side, Muzaffarabad was the second least developed district, that goes onto show that there exits significant potential of exploitation the economic endowments of Muzaffarabad and uplifting its socio-economic status without seeking help from external sources.

8.3. Tourism as Industry

Tourism is one of the major drivers of economy in AJK as 22 percent of the population earns from various type of tourist activates. Yet, huge vacuum is left to be filled to maximize the gains by exploiting the natural endowments for attracting tourists. The infrastructure available in AJK is not conducive to a huge influx of foreign tourists. Lack of ease and comfort for travelers—in terms of roads as well as facilities available—are deterrents. In

addition, the region is prone to natural calamities such as landslides and earthquakes for which safety plans have not been set in. While the location still attracts many daredevil spirited tourists, the region can only become a hotspot if the tourism sector becomes a priority for the government to overhaul.

8.3.1. Demand Side Measures

8.3.1.1 Leveraging the Diaspora

A major measure to promote tourism development in AJK is leveraging the AJK diaspora. Interestingly, Diasporas have played a significant role in the development of developing countries in areas including tourism, remittances, technology transfer and investments. Diaspora tourism is the travel of the diaspora to their ancestral homeland for reasons like leisure travelling or discovering and reconnecting with their culture, homeland, religion etc. And AJK has a significant population of expatriates living abroad for generations and sending in remittances, hence tapping into this vast diaspora can be key for economic development of the region. Besides the regular reasons for visiting the homeland like vacation and visiting relatives and families, the different types of tourism that can attract diaspora visitors in Azad Jammu Kashmir include business tourism. This is where the local government and companies can try to lure in high net worth individuals by offering them lucrative investment and business opportunities as they might be more interested to invest or spend on local infrastructure, which could influence other investors and businesses to invest in AJK. Here tax breaks and easy access to finance, and loan guarantees to these tourists could actually turn them into tourist investors.

8.3.1.2. Religious Tourism

Another type of tourism for AJK's diaspora has to be religious tourism. The Tourism Department of AJK has already started promoting religious sites like shrines, mosques, gurdwaras and temples, and particularly targeting the overseas residents can help religious tourism gain further traction. Another way to attract diaspora tourists to AJK is to market the rich heritage and culture of AJK to the diaspora community as they have better knowledge or might be more interested in discovering their roots. Plus, their positive word of mouth and experience can entice other tourists to visit AJK.

Where these forms of diaspora tourism offer new opportunities to AJK to grow its tourism sector and hence its economic development, there are factors and challenges to diaspora tourism (as well as general tourism) that can lower the gains if remain unaddressed. Infrastructural damages and low maintenance of sites and scenes of cultural/heritage value can discourage diaspora tourists and inadvertently other potential tourists. The key is to understand that the diaspora tourists are also potential investors, businessmen, students, and remitters. To reap the benefits of diaspora tourism, the Tourism Department AJK should create specialized tourist programs and packages that attract the overseas communities to visit AJK. At the same time, the marketing and promotion of activities should also be directed at these potential tourists among others across the world.

8.3.2. Supply Side Measures

8.3.2.1. Availability of Micro-Finance

Another way to develop the tourism industry is to ensure availability of micro credit financial system. Many tour operators, transportation providers and fleet operators, small restaurants and hotels, food and entertainment providers etc. start business with savings, inheritance or friends and family financing, or they go to the informal financing route which is expensive. They run their businesses on the same scale with internal cash flows or informal lending. Most of these enterprises remain informal and undocumented, steering clear of formal financial lending. Often, they can rely on microfinance institutes which require less paperwork and less checks and balances, but have very small loan limits. In essence, micro credit can only be used for running finance needs, rather than expansion of operation or purchasing assets or machinery. The AJK government can initiate schemes for provision of finance to businesses related to tourism or can invite private financial institutions by partnering with them.

8.3.2.2. Role of Women

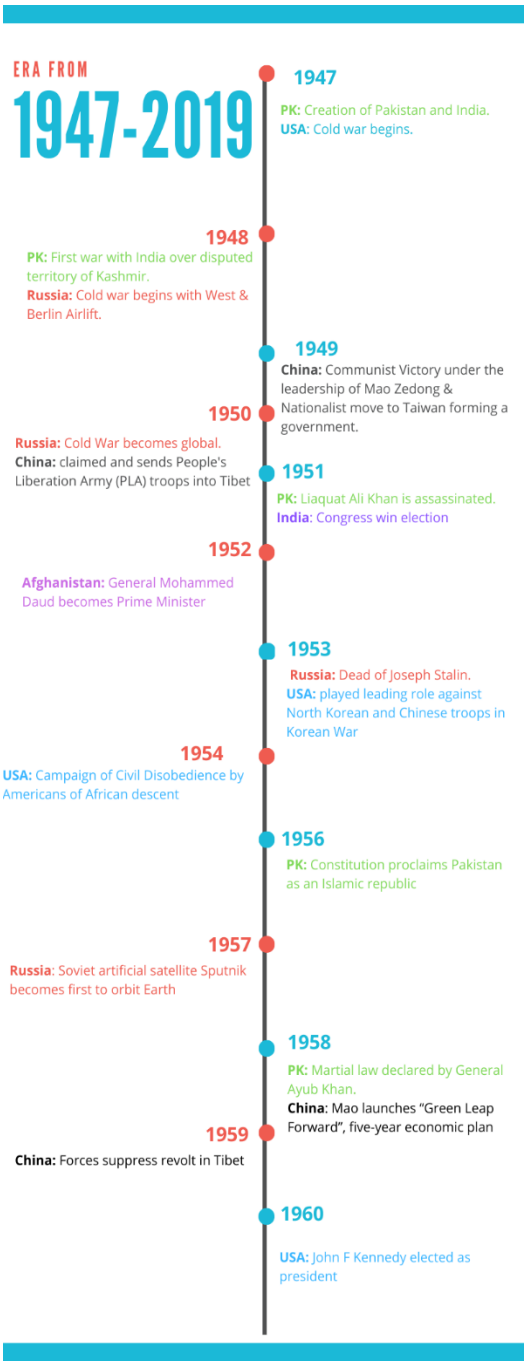
Role of Women is imperative for inclusive economic development. The inclusion of women in the labor force market as well as entrepreneurs in SMEs especially linked with tourism and hospitality is essential for economic growth that has vast reaching impact for the state. Without the inclusion of women, men-led growth model is unable to alleviate poverty in the women-led households as well as keeping economic growth slow; particularly, due to the fact that women have intrinsically higher aptitude in various skills such as embroidery, packaging, hospitality and others and these skills are major drivers of tourism industry. Government needs to devise policy measures that incentivize women to reduce their leisure hours and enter the labor force and this would also require social and workplace protection along with ensuring minimum or zero wage and sex discrimination prevails in the market.

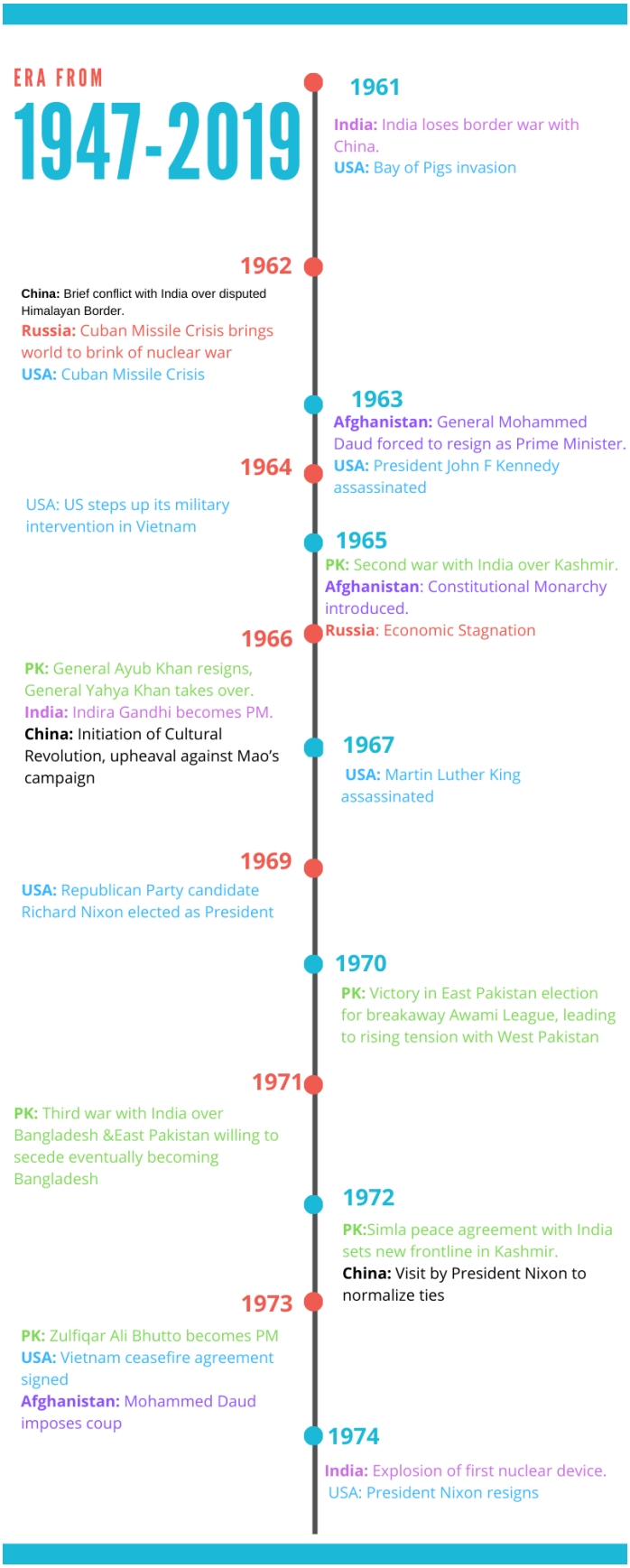
8.4. The Idea for Future Study

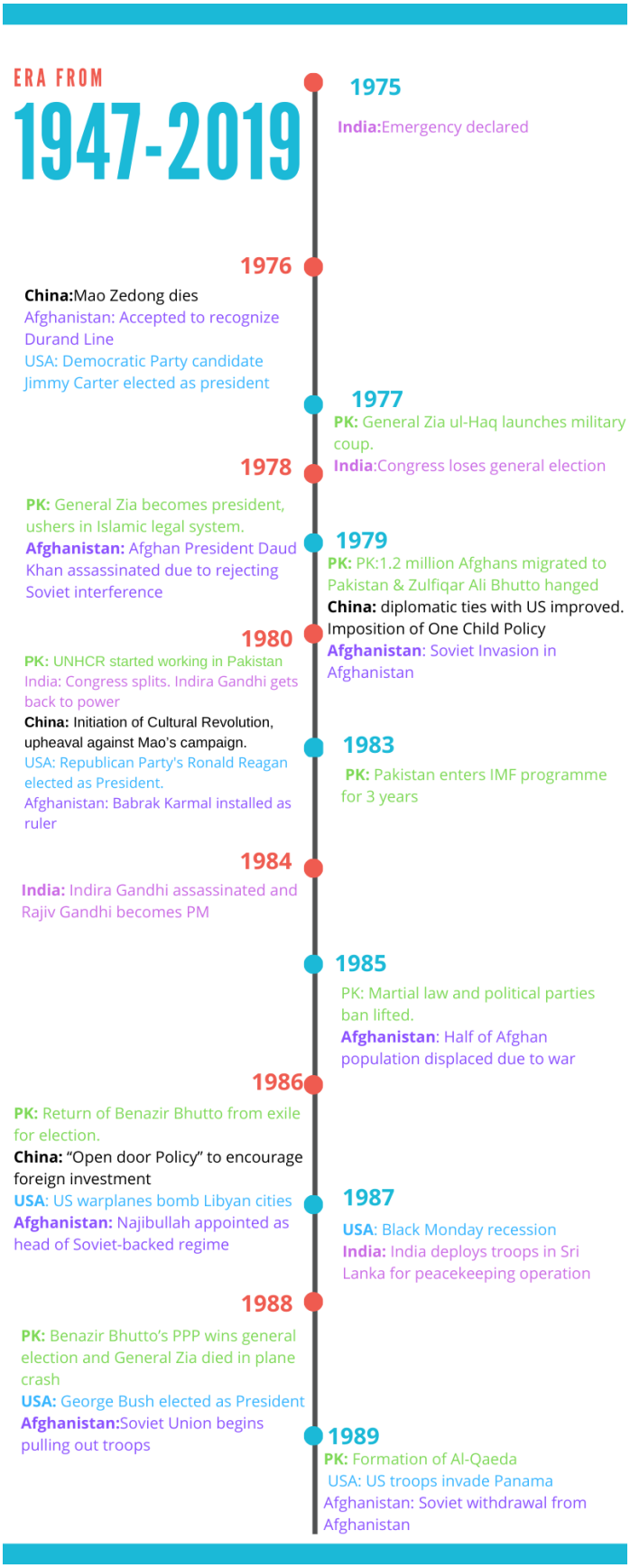
This study concludes with providing the gaps which have remained a hurdle in the economic and industrial development of AJK. In the next round of study, it is aimed to analytically discuss and explore option and opportunities for AJK to fill in the blanks with most effective targeted policy interventions as the 21st century industrialization era does not work on one size fitting all; but at bespoke solution tailored made for each district/sector/organization.

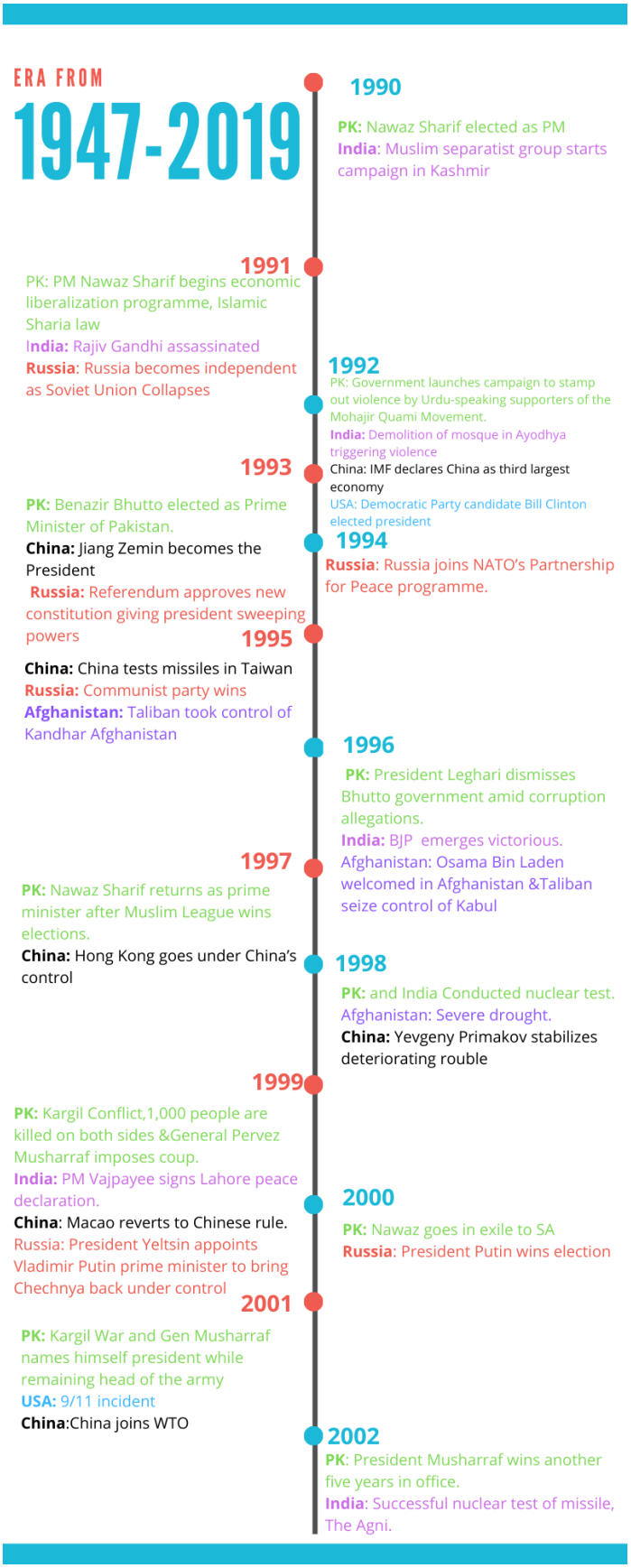
Annexes

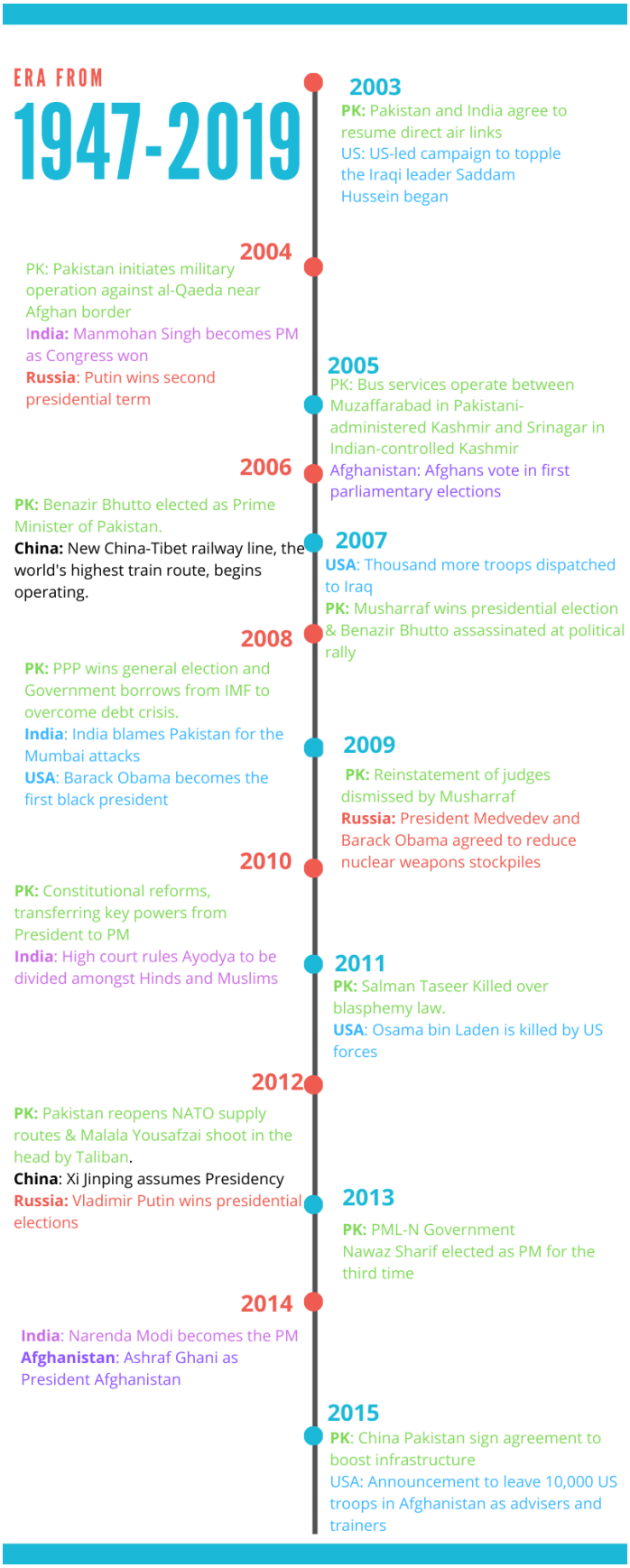
Annexure 1: Political Timeline




ERA FROM
1947-2019
1961
India: India loses border war with China.
USA: Bay of Pigs invasion
1962
China: Brief conflict with India over disputed Himalayan Border.
Russia: Cuban Missile Crisis brings world to brink of nuclear war
USA: Cuban Missile Crisis
1963
Afghanistan: General Mohammed Daud forced to resign as Prime Minister.
USA: President John F Kennedy assassinated
1964
USA: US steps up its military intervention in Vietnam
1965
PK: Second war with India over Kashmir.
Afghanistan: Constitutional Monarchy introduced.
Russia: Economic Stagnation
1966
PK: General Ayub Khan resigns, General Yahya Khan takes over.
India: Indira Gandhi becomes PM.
China: Initiation of Cultural Revolution, upheaval against Mao's campaign
1967
USA: Martin Luther King assassinated
1969
USA: Republican Party candidate Richard Nixon elected as President
1970
PK: Victory in East Pakistan election for breakaway Awami League, leading to rising tension with West Pakistan
1971
PK: Third war with India over Bangladesh &East Pakistan willing to secede eventually becoming Bangladesh
1972
PK:Simla peace agreement with India sets new frontline in Kashmir.
China: Visit by President Nixon to normalize ties
1973
PK: Zulfiqar Ali Bhutto becomes PM
USA: Vietnam ceasefire agreement signed
Afghanistan: Mohammed Daud imposes coup
1974
India: Explosion of first nuclear device.
USA: President Nixon resigns


ERA FROM
1947-2019
1975
India:Emergency declared
1976
China:Mao Zedong dies
Afghanistan: Accepted to recognize Durand Line
USA: Democratic Party candidate Jimmy Carter elected as president
1977
PK: General Zia ul-Haq launches military coup.
India:Congress loses general election
1978
PK: General Zia becomes president, ushers in Islamic legal system.
Afghanistan: Afghan President Daud Khan assassinated due to rejecting Soviet interference
1979
PK: PK:1.2 million Afghans migrated to Pakistan & Zulfiqar Ali Bhutto hanged
China: diplomatic ties with US improved.
Imposition of One Child Policy
Afghanistan: Soviet Invasion in Afghanistan
1980
PK: UNHCR started working in Pakistan
India: Congress splits. Indira Gandhi gets back to power
China: Initiation of Cultural Revolution, upheaval against Mao's campaign.
USA: Republican Party's Ronald Reagan elected as President.
Afghanistan: Babrak Karmal installed as ruler
1983
PK: Pakistan enters IMF programme for 3 years
1984
India: Indira Gandhi assassinated and Rajiv Gandhi becomes PM
1985
PK: Martial law and political parties ban lifted.
Afghanistan: Half of Afghan population displaced due to war
1986
PK: Return of Benazir Bhutto from exile for election.
China: "Open door Policy" to encourage foreign investment
USA: US warplanes bomb Libyan cities
Afghanistan: Najibullah appointed as head of Soviet-backed regime
1987
USA: Black Monday recession
India: India deploys troops in Sri Lanka for peacekeeping operation
1988
PK: Benazir Bhutto's PPP wins general election and General Zia died in plane crash
USA: George Bush elected as President
Afghanistan:Soviet Union begins pulling out troops
1989
PK: Formation of Al-Qaeda
USA: US troops invade Panama
Afghanistan: Soviet withdrawal from Afghanistan


ERA FROM
1947-2019
1990
PK: Nawaz Sharif elected as PM
India: Muslim separatist group starts campaign in Kashmir
1991
PK: PM Nawaz Sharif begins economic liberalization programme, Islamic Sharia law
India: Rajiv Gandhi assassinated
Russia: Russia becomes independent as Soviet Union Collapses
1992
PK: Government launches campaign to stamp out violence by Urdu-speaking supporters of the Mohajir Quami Movement.
India: Demolition of mosque in Ayodhya triggering violence
1993
China: IMF declares China as third largest economy
USA: Democratic Party candidate Bill Clinton elected president
PK: Benazir Bhutto elected as Prime Minister of Pakistan.
China: Jiang Zemin becomes the President
Russia: Referendum approves new constitution giving president sweeping powers
1994
Russia: Russia joins NATO's Partnership for Peace programme.
1995
China: China tests missiles in Taiwan
Russia: Communist party wins
Afghanistan: Taliban took control of Kandhar Afghanistan
1996
PK: President Leghari dismisses Bhutto government amid corruption allegations.
India: BJP emerges victorious.
Afghanistan: Osama Bin Laden welcomed in Afghanistan &Taliban seize control of Kabul
1997
PK: Nawaz Sharif returns as prime minister after Muslim League wins elections.
China: Hong Kong goes under China's control
1998
PK: and India Conducted nuclear test.
Afghanistan: Severe drought.
China: Yevgeny Primakov stabilizes deteriorating rouble
1999
PK: Kargil Conflict,1,000 people are killed on both sides &General Pervez Musharraf imposes coup.
India: PM Vajpayee signs Lahore peace declaration.
China: Macao reverts to Chinese rule.
Russia: President Yeltsin appoints Vladimir Putin prime minister to bring Chechnya back under control
2000
PK: Nawaz goes in exile to SA
Russia: President Putin wins election
2001
PK: Kargil War and Gen Musharraf names himself president while remaining head of the army
USA: 9/11 incident
China:China joins WTO
2002
PK: President Musharraf wins another five years in office.
India: Successful nuclear test of missile, The Agni.


ERA FROM
1947-2019
2003
PK: Pakistan and India agree to resume direct air links
US: US-led campaign to topple the Iraqi leader Saddam Hussein began
2004
PK: Pakistan initiates military operation against al-Qaeda near Afghan border
India: Manmohan Singh becomes PM as Congress won
Russia: Putin wins second presidential term
2005
PK: Bus services operate between Muzaffarabad in Pakistani-administered Kashmir and Srinagar in Indian-controlled Kashmir
2006
Afghanistan: Afghans vote in first parliamentary elections
PK: Benazir Bhutto elected as Prime Minister of Pakistan.
China: New China-Tibet railway line, the world's highest train route, begins operating.
2007
USA: Thousand more troops dispatched to Iraq
PK: Musharraf wins presidential election & Benazir Bhutto assassinated at political rally
2008
PK: PPP wins general election and Government borrows from IMF to overcome debt crisis.
India: India blames Pakistan for the Mumbai attacks
USA: Barack Obama becomes the first black president
2009
PK: Reinstatement of judges dismissed by Musharraf
Russia: President Medvedev and Barack Obama agreed to reduce nuclear weapons stockpiles
2010
PK: Constitutional reforms, transferring key powers from President to PM
India: High court rules Ayodya to be divided amongst Hinds and Muslims
2011
PK: Salman Taseer Killed over blasphemy law.
USA: Osama bin Laden is killed by US forces
2012
PK: Pakistan reopens NATO supply routes & Malala Yousafzai shoot in the head by Taliban.
China: Xi Jinping assumes Presidency
Russia: Vladimir Putin wins presidential elections
2013
PK: PML-N Government
Nawaz Sharif elected as PM for the third time
2014
India: Narenda Modi becomes the PM
Afghanistan: Ashraf Ghani as President Afghanistan
2015
PK: China Pakistan sign agreement to boost infrastructure
USA: Announcement to leave 10,000 US troops in Afghanistan as advisers and trainers

Annexure 2 - AJK SEZ ACT 2016, Framework, Functions and Responsibilities – Who is doing what?

SEZ Act 2016 [Act XV of 2016].	**39. Act to override other laws**,-The provisions of this Act shall have force notwithstanding anything to the contrary contained in any other law for the time being in force.	**1. Short title, Extent and Commencement.** (1) This Act may be called the Azad Jammu and Kashmir Special Economic Zones Act, 2016.
2(k) "Government" or "Go AJK" means the Azad Government of the State of Jammu and Kashmir; **2(q) "State" or "AJK**" means the Azad Jammu and Kashmir;		**26. Public utilities and transportation links.** (1) Unless provided otherwise in a particular development agreement, it shall be the responsibility of— (i) the Government to ensure the provision of gas, electricity and other utilities at the designated zero point of each SEZ; (ii) the Government to ensure adequate road access to the SEZ; and [see more under Section 26: developer] **31. Security.** (1) State or any concerned authority shall be responsible for providing security for the protection of SEZs. (2) Pending the creation of a special police force, State or any concerned authority shall designate special police units responsible for the protection of SEZs within that area.
2 (c) Board of Approvals (BOA) **2(v) "Zone regulations" mean regulations made under this Act** **3(f) "Council" means the Azad Jammu and Kashmir Council** created under Section 21	**4 (1) There shall be a BOA, consisting of,** (i) The Prime Minister of the AJK who shall be the Chairperson of the BOA; (ii) The Minister for Finance, GoAJK who shall be the Vice Chairperson of BOA; (iii) The Minister' for Industries and Commerce, GoAJK;	**5. Functions and responsibilities of the BOA**. The BOA may, (a) approve such regulations for the implementation of this Act as are applicable to SEZs or to a particular group of SEZ or a particular SEZ; (b) approve or reject zone applications; (c) approve or reject development agreements; (d) examine and decide upon policy issues submitted to it by State SEZ Authority or by developers; (e) co-opt on the members of the Approvals Committee as necessary; (f) notify with approval of relevant authorities additional benefits under sub-section (2) of Section 34; (g) cancel development agreement; (h) review and direct actions on annual reports submitted by State SEZ Authority; (i) annually review the implementation of this Act

of the AJK Interim Constitution Act, 1974	(iv) The Minister for Physical Planning and Housing, GoAJK; (v) Two members one from the Council and other from Legislative Assembly to be nominated by the Prime Minister; (vi) Member Legislative Assembly elected against the seat reserved for overseas Kashmiries. (vii) The Additional Chief Secretary (Development), GoAJK; (viii) Representative of State Bank of Pakistan, Branch Muzaffarabad; (ix) Secretary BOI; (x) The President of Azad Jammu and Kashmir Chambers of Commerce and Industry	with a view to improving policies relating to SEZs; and (j) take any other steps it deems appropriate in order to advance the objectives of this Act. **27. Applicable operating administrative procedures. (1)** The BOA, the BOI and the State SEZ Authority shall promote the adoption of simplified administrative procedures for' SEZs and zone enterprises. Such procedures shall in particular facilitate the— (i) issuance of licenses, permits and other approvals to zone enterprises required for their business (ii) satisfaction of customs and other export or import requirements by zone enterprise's activities; (iii) fulfillment of tax obligations by zone enterprises; and (iv) Authorization of electronic communications and Modes of E-governance. **(2) Procedures under sub-section (1)** shall endeavor to— (i) substitute notifications and registrations for license, permit and other approval requirements; and (ii) Authorize approvals on a no objection basis within a specified period.

2(a) Approvals Committee; "Approvals Committee" means the committee constituted under section 7; **2 (d) Board of Investment (BOI)**	**6. Approvals Committee.** (1) There shall be an Approvals Committee that shall be **chaired by the Chairman of the BOI** and shall consist of the following, namely,-(i) executive head of the SIP authority or companies or agencies, and where these do not exist, a representative equivalent to a Secretary as designated by the Government;(ii) representatives of the Ministries of Finance, Industries and Commerce, PPH not below the level of an Additional Secretary to the Government; and (iii) private sector representatives representing different sectors and regions to be notified and two co-opted members by special invitation with a three-year term extendable at the discretion of the BOA. (2) The Approvals Committee shall exercise all such powers and responsibilities as are delegated to it by the BOA, subject to such conditions as it may deem fit. (3) The BOA may	**7. Functions of Board of Investment (BOI**). (1) **The BOI as the Secretariat of BOA and Approvals Committee** shall, (a) be responsible for the co-ordination of all activities pertaining to SEZs, developers and zone enterprises, including the preparation of all documentation for consideration by the BOA and for ensuring the implementation of all decisions of the BOA; (b) process all zone applications submitted by State SEZ Authority for consideration of BOA; (c) process all applications for additional incentives in accordance with sub section (2) of Section 34; (d) review all development agreements proposed by State SEZ Authority; (e) be responsible for the international and domestic promotion of investments into SEZs; and (f) facilitate the interaction of developers and zone enterprises with all representatives of the Government as well as Government of Pakistan and with international financial and developmental institutions. (2) BOI shall support and facilitate the State SEZ Authority, if requested. **28. Assistance by the BOI and State SEZ Authority**. (1) The BOI shall act as a liaison and facilitating agency between,— (i) all departments, authorities and agencies; and (ii) State SEZ Authority, developers and zone enterprises. **(2)** The **BOI shall act as a one stop shop** in its responsibilities under **sub-section (1)**. **(3)** The State SEZ Authority shall act as a liaison and facilitating agency between— all departments, authorities and agencies of the Government including all local governments and municipal authorities and agencies; and developers and zone enterprises **(4)** To the extent practicable, State SEZ Authority in or in any other area shall seek to enter into administrative arrangements with tax, customs, labour and other authorities under which SEZ authorities may exercise certain administrative functions on behalf of such authorities, which arrangements may include a secondment of officials with decision-making power from such authorities to SEZ Authorities. **(5**) All departments, authorities and other agencies

	delegate all or any of its remaining powers and responsibilities to the Approvals Committee. (4) A decision taken by the Approvals Committee shall be submitted to BOA at its meetings or by circulation for approval. (5) The BOA may, at any time, exercise any responsibility or any power which it has delegated to the Approvals Committee.	shall fully co-operate with the BOI and State SEZ Authority in facilitating the activities of developers and zone enterprises and carry out the requisite functions within the time frame Stipulated under the **regulatory framework prescribed by BOA** for the implementation of this Act. **40. Rules and regulations for implementation of this Act.**- The BOI, in consultation with State SEZ Authority and with approval of the BOA, may make rules and regulations as deemed necessary for implementation and to carry out purposes of this Act.
2(n) State SEZ Authority (SEZA) means the State special economic zone authority established under this act Section 10 **2(l) "Misconduct"" means any conduct of a member or Chairperson of the State SEZ Authority that is prejudicial to the good order and**	**9 . State Special Economic Zone (SEZ) Authority**.- (1) There shall be established, an authority to be known as the State SEZ Authority. (2) The State SEZ Authority shall be a body corporate by the name aforesaid, having perpetual succession and a common seal, with a power, subject to the provisions of this Act and any regulations, to acquire, hold and dispose of property,	**16. Functions and powers of State SEZ Authority**. (1) The State SEZ Authority shall be responsible to— (a) prepare zone applications in accordance with this Act and applicable zone regulations; (b) select developers in accordance with the provisions of this Act and the applicable zone regulations; c) negotiate development agreements in accordance with the provisions of this Act and applicable zone regulations; (d) assist developers upon award of a development in acquiring land and accessing public utilities in accordance with the zone development plan; (e) **prepare zone regulations for particular SEZ**; (f) co-ordinate with Federal and Provincial authorities of Pakistan and ensure the building of infrastructure outside the boundaries of SEZ; (g) serve as liaisons and facilitating agencies in accordance with the provisions of section 29; (h) facilitate the availability of public utilities to zone

management of the State SEZ Authority or a SEZ and includes but not limited to the following, namely: (i) Failure to disclose an interest of the member or Chairperson in a transaction related to a SEZ or an interest of the member's parent, spouse, brother, sister, child, or spouse of a parent, brother, sister or child; (ii) any act or omission which is ultra vires of this Act (iii) any act or omission which lacks good faith; or (iv) any act or omission which is inconsistent with the fiduciary duties of such member or Chairperson;" **2(b) "arbitration" shall include arbitration under the applicable laws of Azad Jammu and Kashmir as well as arbitration under any applicable law of Pakistan or international**	both movable and immovable, and to contract and shall, by the said name, be entitled to sue and to be sued. (3) State SEZ Authority shall consist of,- (a) a Chairperson, who shall be the Minister Industries or a person appointed by him; (b) a Vice-Chairperson, who may be the Minister of GoAJK or the Advisor to Prime Minister, in charge of the investment department and where no such department exists, any member of the AJK cabinet nominated by the Prime Minister; (c) Chief Executive Officer who may be appointed by the Prime Minister who may be the Secretary of the State SEZ Authority; (d) Secretary of the investment department and where no such department exists, the executive head of the SIP authority by whatever name it exists; (e) Secretaries of the industries, finance, works, services, agriculture and planning and development departments; (f) two members to	enterprises in accordance with the zone development plan; (i) liaise with all relevant authorities to ensure the security of SEZs; (j) Monitor the proper implementation of streamlined administrative procedures in SEZs under Section 28; (k) Monitor the compliance of developers with zone regulations as well as the compliance of developers with their obligations under development agreements and suspend development agreements, in case of violation of terms of development agreement by the developer, pending final decision by BOA. (l) Monitor the compliance of zone enterprises with their obligations under zone regulations; (m) review of the activities of the developer's and zone enterprises regularly but not less than once a year; and (n) report biannually to the BOA with respect to SEZ. **21. Sanctions against developers**. **(1)** The State SEZ Authority may, if it is satisfied, after notice and a hearing that a developer is not acting in accordance with the terms of its development agreement or is acting in violation of applicable zone regulations or applicable legislation and has failed to rectify such violation despite notice to this effect, suspend the development agreement of that developer and move for cancellation of such agreement to the BOA or impose such other penalty as may be provided under the applicable zone regulations or the development agreement. **(2)** Upon receipt of an application from the State SEZ Authority seeking cancellation of a development agreement, the BOA shall give notice to the developer concerned, asking it to show cause why its development agreement should not be cancelled or why such lesser penalty as may be provided under applicable zone regulations should not be imposed. **(3)** pending the final decision of the BOA on a proposal for cancellation of a particular development agreement, the State SEZ Authority may appoint an interim administrator or take such interim measures as it is necessary to do so— (a) in the public interest; or (b) to prevent any of the affairs of any SEZ being conducted in a manner detrimental to the interests of stakeholders, zone enterprises or other persons whose interest are likely to be affected or in a manner prejudicial to the interests of the SEZ. **(4)** Pending the final decision of the BOA, on a

regime, whether selected contractually through an agreement in writing or available to a party or parties as a result of an international agreement accorded or ratified;	be appointed by the Prime Minister and two other members to be appointed by the BOA; and a member to be appointed by the concerned Chamber of Commerce and industry where the SEZ is proposed. If there is no Chamber of Commerce then a member of the Chamber of Commerce of that respective area to be appointed for each State SEZ Authority; (g) a member to be appointed by the chamber of commerce and industry where the SEZ is proposed. If there is no chamber of commerce then a member of the chamber of commerce of that respective area to be appointed. (4) State SEZ Authority may acquire land in accordance with the Land Acquisition Act, 1894 (I of 1894), as enforced in the AJK. (5) State SEZ Authority shall, subject to the approval of BOA, make rules and procedures. (6) Where the Chairperson is not present, the Vice Chairperson shall chair the State SEZ	proposal for cancellation of a particular development agreement, the State SEZ Authority may, if it is satisfied that it is necessary to secure the proper management of any zone, issue directions to developers generally or to any developer in particular to carry out such changes as are necessary to rectify the situation and the developers shall be bound to comply with such directions. **(5)** Following a hearing in person, in which the developer may be represented by counsel, the BOA may impose such penalty as is provided by the applicable zone regulations or the development agreement, which may include cancellation of a development agreement or cancellation of any benefits allowed to a developer, provided that any cancellation of benefits to a developer shall be without prejudice to the rights and privileges of zone enterprises. **(6)** The BOA may only cancel a development agreement if it finds that— (i) the developer has violated its development agreement; and (ii) that the developer has failed to rectify such violation despite notice **(7)** In addition to the rights of a developer to seek relief through arbitration, a developer aggrieved by any decision of the BOA, BOI or by the imposition of sanction by the State SEZ Authority or by the suspension or cancellation of its development agreement may appeal before the High Court AJK. **24. Sanctions against zone enterprises.** (1)The BOA shall issue zone regulations which provide for sanctions against zone enterprises and the manner in which such sanctions may be imposed. (2) The BOA may, with respect to particular SEZs, delegate its authority under sub-section (1) to State SEZ Authority. (3) The State SEZ Authority may if it is satisfied that it is necessary to do so to secure the proper management of any zone enterprise, issue directions to Zone enterprises generally or to any zone enterprise in particular to carry out such changes as are necessary to rectify the situation and the zone enterprise shall be bound to comply with such directions. (4) The State SEZ Authority may only expel a zone enterprise from a SEZ if it finds that— (i) the zone enterprise is in violation of its obligations; and (ii) the zone enterprise has failed to rectify such violation despite notice

	Authority's meeting. **17. Suspension and removal of members of State SEZ Authority.** (1) The Prime Minister may order removal of either the Chairperson, or any member of the State SEZ Authority. (2) If either the Chairperson or any member of a State SEZ Authority is removed, their replacement shall be appointed by the Prime Minister.	(5) The State SEZ Authority may appoint an interim administrator or take such interim measures for a period of not more than one month if it is satisfied that it is necessary to do so— (i) in the public interest; or (ii) to prevent any of the affairs of any SEZ being conducted in a manner, detrimental to the interests of stakeholders, developers, zone enterprises or persons whose interests are likely to be affected or in a manner prejudicial to the interests of the SEZ. (6) The action taken by the State SEZ Authority in accordance with sub-section (5) shall be referred to BOA within seven days for ratification by BOA. The BOA shall decide the matter and issue the guidelines and instructions about operations of zone enterprise within fifteen days.
2(o) SEZ Committee means the authority chartered by the BOA at each SEZ under this act section 23	**22. SEZ committees.** (1) The BOA shall charter an SEZ Committee for each SEZ as per the applicable zone regulations. (2) The membership of a SEZ committee shall consist of representatives from the developer, BOI, State investment promotion agency, State SEZ Authority and concerned district authority. **The developer shall appoint the chairperson of the SEZ committee**.	**22 (3) Each SEZ committee shall have responsibilitie**s to administer and enforce SEZ benefits and rules as well as provide facilitation between the SEZ, its enterprises and the government with responsibilities including to— (a) examine and approve SEZ entry applications in accordance with zone admissions criteria; (b) provide for certification of zone enterprises; (c) conduct oversight of enterprises; (d) enforce the building code of the SEZ; (e) coordinate between the developer and government entities and utility providers during construction; (f) assist Zone enterprises in obtaining approvals and registrations; (g) serve as the point of contact between the zone enterprise and utility providers; and facilitate between enterprises and government regulators and tax authorities. **22 (4) SEZ Committees shall execute their responsibilities** according to their standard operating procedure in accordance with **zone regulations**.

2(m) State investment promotion authority (SIP) - an investment promotion agency, by whatever name called, formed by the Govt. to work as focal authority to promote domestic and foreign investment in the State		**8. Responsibilities of State investment promotion (SIP) authority.** The SIP authority shall be responsible within its jurisdiction for the following, namely:— (a) to assist in the operation of the State SEZ Authority; (b) to be the focal entity responsible for the investment promotion; (c) may assist the State SEZ Authority and the developers in acquisition and other land related matters including but not limited to necessary easement issues; (d) to ensure infrastructure development linkages between authorities within the SEZ; and outside the SEZ; (e) to facilitate the developers and zone enterprises in dealing with all governmental authorities for smooth and systematic resolution of issues as and when they arise; and (f) to facilitate the developers and enterprises in complying with environmental regimes and social development.
2(g) Developer - an enterprise who has entered into an agreement with a provincial SEZ authority **(h) "Development agreement"** means a duly approved agreement between SEZ authorities and agreed to and endorsed by the BOA and a developer that authorises the developer to develop, establish and operate a SEZ; **2(e) "capital equipment"** means plant,	**18. Eligibility as developer.** Unless otherwise decided by the BOA with respect to a particular SEZ or type of SEZ, any entity shall be eligible as a developer which is incorporated under the laws of Azad Jammu and Kashmir or Pakistan. **2 (r) Zone admission criteria means the criteria under this Act and to be applied by developers in deciding whether or not to admit an enterprise into a particular SEZ** including thereof Zone approval criteria	**19. Responsibilities of developers.** **(1)** With the exception of existing zones which have been approved as SEZs, all SEZs shall be developed and operated by developers within a specified time period as mentioned in the development agreement. **(2)** All developers shall— (i) Implement their zone development plans in accordance with the terms of their development agreement; (ii) approve zone enterprises and allot land to such enterprises in accordance with the applicable zone admission criteria, zone regulations and the terms of the development agreement; and (iii) monitor and ensure the compliance of zone enterprises with all applicable zone regulations, **(2)** Subject to default on the foregoing unless otherwise, the agreement shall stand terminated. **25. Land regime.** (1) The Government or any concerned authority shall nominate, for each SEZ, a sub-registrar who shall be the exclusive authority with which ail documents relating to that SEZ shall be liable to be registered under this Act, zone regulations and any other applicable law. (2) Notwithstanding any other law in forced, a developer may not sell, sub-lease or otherwise

machinery or equipment, accessories, and component part of machinery and equipment identifiable for use in or with machinery required for economic activities and machinery includes machinery and equipment of any descriptions such as is used in industrial process, manufacture, production or processing of other goods and rendering services, except the goods that are consumed in the manufacturing, production, processing of goods or provision of services;	**37. Jurisdiction of court.** Without prejudice to the provisions of section 39, (a) the High Court of AJK shall have exclusive original civil jurisdiction with respect to all disputes between the developer of that SEZ and any governmental authority or agency, to the extent that such dispute arises out of, or relates to, a development agreement; and (b) the district court of the district within whose boundaries a SEZ is located shall have exclusive original civil jurisdiction with respect to— (i) all disputes between the developer of that SEZ and a zone enterprise located within that SEZ	transfer any rights with respect to any immovable property within a SEZ except through a duly registered instrument. **26. Public utilities and transportation links.** (iii) each developer to ensure, within a particular SEZ, the supply of gas and electricity to all zone enterprises as well as the availability of ail other public utilities required for such areas as envisaged in the development agreement. (2) Unless provided otherwise in a particular development agreement and not withstanding anything to the contrary contained in any law, each developer shall have the right to set up a captive electric power generation plant or install a hydel power generator of sufficient size to cater to the expected demand for electricity within a particular SEZ and to sell and distribute only the excess electricity so generated within and outside that particular SEZ in accordance with the applicable regulations. **35. Benefits for developers.** (1) Unless otherwise provided in a development agreement, developers shall be entitled to the following benefits, namely: (a) one time exemption from all customs duties and taxes for all **capital goods** imported into the State for the development, operation and Maintenance of a SEZ, entity, subject to verification and approval from the BOI; and (b) Exemption from all taxes on income accruable in relation to the development and operation of the SEZ for a period of ten years, starting from the date of signing of the development agreement.

2(u) Zone enterprise means an enterprise admitted into a SEZ by a developer; **2(b) "arbitration" shall include arbitration under the applicable laws of Azad Jammu and Kashmir as well as arbitration under any applicable law of Pakistan or international regime**, whether selected contractually through an agreement in writing or available to a party or parties as a result of an international agreement accorded or ratified; **2(e) "capital equipment"** means plant, machinery or equipment, accessories, and component part of machinery and equipment identifiable for use in or with machinery required for economic activities and machinery		**30. Employment of key persons**.- Notwithstanding anything contained in any other law, the BOA **may issue special rules** for the employment by zone enterprises of key managerial and technical persons who are not citizens of State or Pakistan, relating to the terms and conditions of their contracts as well as with respect to the issuance of visas, temporary residence permits and temporary work permits for such key persons and their dependents provided further that such rules shall only be issued after consultation with,— (i) the Ministry of Interior Government of Pakistan; (ii) the Ministry of Foreign Affairs Government of Pakistan; and (iii) such other Ministry as may be relevant. **36. Benefits for zone enterprises.** (1) All zone enterprises shall be entitled to the following benefits, namely: (a) Exemption from custom duties and taxes on imports of **capital goods** into the SEZ for installation therein; and (b) Exemption from all taxes on income for a period of ten years starting from the date the developer certifies that the zone enterprise has commenced commercial operations with the relevant SEZ. **37. Jurisdiction of court.-** Without prejudice to the provisions of section 39, (a) the High Court of AJK shall have exclusive original civil jurisdiction with respect to all disputes between the developer of that SEZ and any governmental authority or agency, to the extent that such dispute arises out of, or relates to, a development agreement; and (b) the district court of the district within whose boundaries a SEZ is located shall have exclusive original civil jurisdiction with respect to— (i) all disputes between the developer of that SEZ and a zone enterprise located within that SEZ; and (ii) all disputes between two or more zone enterprises located within that same SEZ. **38. Alternative dispute resolution procedures.** (3) Zone regulations may provide for the resolution of disputes between zone enterprises in the same SEZ or between zone enterprises and developers through Arbitration and mediation in accordance with procedures approved by the BOA for this purpose.

includes machinery and equipment of any descriptions such as is used in industrial process, manufacture, production or processing of other goods and rendering services, except the goods that are consumed in the manufacturing, production, processing of goods or provision of services;		
2 (r) Zone approval criteria that means **the criteria to be applied by the State SEZ Authority and the BOA** in deciding whether to allow or not to allow a particular area to be developed as a SEZ	**11. Approval of zone applications.** (1) All **zone applications shall be submitted to the BOA by the State SEZ Authority** of the State where the proposed SEZ shall be located.(2) The BOA shall review every zone application submitted to it by the State SEZ Authority to ensure that the proposal is in conformity with the provisions of this Act, any applicable regulations made under this Act and other applicable provisions of law.	**15. Zone approval criteria.** (1) **The BOA shall issue general and particular zone approval criteria For SEZ compatible with Pakistan's obligations under its multilateral and bilateral trade agreements** which shall cover— (i) customs procedures for imports into a SEZ and exports out of it; and (ii) Pakistani certificates of origin for exports issued by the respective Chamber of Commerce. (2) unless otherwise decided by the BOA, the following provisions shall Form part of the zone approval criteria, namely;— (a) SEZ shall have a minimum size of **at least fifty acres**; (b) **not more than thirty per cent** of the entire area of a SEZ shall be used for amenities (including commercial areas), infrastructure and residential or labour colonies; (c) **public-owned land, if used for SEZs shall be leased for a period of at least fifty years** extendable For further period as laid down by the competent Forum;

		(d) Developers must undertake to comply with all environmental, labour and other applicable legislation in force in Azad Jammu and Kashmir. (e) zone enterprises must **begin construction of facilities within six months** and assume **regular business operations within twenty-four months of their approval as zone enterprises** and after receipt of all required licences and permits; (f) **within six months the developer is bound to take all necessary approvals to start construction activities** failing which that title shall be withdrawn and agreement shall be terminated and land will be returned; (g) **title to land** may be registered in the name of zone (h) **enterprises** only after they have **performed business operations** in the SEZ concerned for **at least six months**; (i) there shall be **no real estate activities** in the zone as this would result in withdrawal of the title of land and termination of the agreement; and (j) Articles of association of the zone developer, shall be approved by the State SEZ Authority, in accordance with the regulatory framework prescribed by the BOA. (3) In case the **State SEZ Authority is satisfied** with the justification put forward for delay in performance of a responsibility by an enterprise in a SEZ, it may **give a reasonable relaxation in time frame** for performance of the particular responsibility.
2(s) "Zone application" means an application submitted in accordance with the provisions of this Act by an State SEZ Authority seeking the notification of an area as a SEZ;		**10. Requirements for all zone applications.** (1) Every zone application submitted for approval to the BOA shall identify the type of SEZ proposed and include,- (a) a basic business concept or model for the proposed SEZ to be submitted;(b) parameters for zone admission criteria; and (c) a preliminary zone development plan which shall— (i) define the geographic boundaries of the proposed SEZ; (ii) set out the basic infrastructure development requirements, both inside and outside the proposed SEZ, necessary for the proper functioning of the proposed SEZ; (iii) set out the land requirements of the proposed SEZ; (iv) set out the manner in which land required shall

		be procured, including specific proposals as whether land to be required shall be acquired under the Land Acquisition Act, 1894 (I of 1894) or otherwise; and (v) Set out the criteria applicable to the admission of zone enterprises into that SEZ. (2) The zone application shall be submitted **along with a proposed development agreement** under Section 14 **and the criteria on which a developer shall be selected for that SEZ**.
2(j) "Existing zones" means the export processing zones, industrial zones and other similar entities in existence at the time of commencement of this Act ..	**2(i) Economic Zone** means a geographically defined and delimited area notified and approved for economic, industrial and commercial activities	**14. Approval of existing zone**. Any existing zone may apply to the State SEZ Authority in which it is located for submission of a zone application on its behalf. (2) Subject to applicable zone regulations, the State SEZ Authority may choose to submit a zone application with respect to an existing zone. (3) The BOA may approve a zone application with respect to an existing zone on such terms and conditions as it deems appropriate, provided that all zone enterprises in existing zones before the commencement of this Act exercises the option of availing the benefits already enjoying or the benefits to be offered by this Act. (4) The existing zones shall not avail the two benefits simultaneously. (5) Notwithstanding anything contained in sub-section (3) only the new entrants and new industries that have never availed any such benefits in the past are eligible for the benefits of SEZ under this Act. **2(j) Existing zones include**: .. and includes but not limited to the following, namely:—(i) "export processing zones" means an economic zone established in Azad Jammu and Kashmir or Pakistan; (ii) "extra-territorial zone" means an economic zone of a type that is to be deemed to be outside the customs territory of Azad Jammu and Kashmir or Pakistan; (iii) "free trade zone" means an economic zone that shall be deemed to be outside the customs territory of Azad Jammu and Kashmir or Pakistan with respect to which the BOA shall approve special facilities for trade, trans shipment and re-export operations in accordance with applicable legislation

		as for the time being in force in Azad Jammu and Kashmir or Pakistan. (iv) “Hybrid export processing zone" means an economic zone that shall be deemed to be outside the customs territory of Azad Jammu and Kashmir or Pakistan in which goods are manufactured and from which services are provided both for exportation to countries other than Pakistan as well for export into Azad Jammu and Kashmir or Pakistan; (v) "multilateral economic zone" means an economic zone in which all zone enterprises are required to be beneficially owned by national, residents or corporate entities of one or more particular countries; (vi) "reconstruction opportunity zone" means an economic zone from which the exports of goods and services has been recognized by any country or jurisdiction other than Pakistan as being eligible for reduced tariff duties and other benefits; (vii) "regional development zone" means an economic zone wherein economic activates are promoted so as to develop particular regions and industries; and (viii) "sector development zone" means a regional development zone in which permissible economic activity shall be limited to one or more sectors as notified by the BOA;

2(h) Zone Development Agreement **(h) "Development agreement"** means a duly approved agreement between SEZ authorities and agreed to and endorsed by the BOA and a developer that authorises the developer to develop, establish and operate a SEZ; **2(b) "arbitration" shall include arbitration under the applicable laws of Azad Jammu and Kashmir as well as arbitration under any applicable law of Pakistan or international regime**, whether selected contractually through an agreement in writing or available to a party or parties as a result of an international agreement accorded or ratified; **2 (r) Zone admission criteria means**	**12. Approval of development agreements.** (1) **If a zone application is approved by the BOA**, the **State SEZ Authority shall select a develope**r in accordance with any applicable zone regulations except as provided in Section 4. Such zone regulations shall require that envisaged development agreements be notified for competitive bidding. (2) **After negotiating a development agreement, the concerned State SEZ Authority shall submit a final agreement for approval to the BOA.** (3) **There shall be a provisional approval by the concerned State SEZ Authorit**y subject to fulfilment of all such conditions necessary for final approval according to laid down criteria. (4) The BOA may condition its approval of a development agreement on the fulfilment of such conditions as it deems fit and according to the laid down criteria. (5) After final	**20. Development agreements**. (1) Each development agreement shall include— (a) all undertakings of the developer regarding the development and operation of the SEZ concerned, with the zone development plan or business concept of proposed SEZ model as an integral part of the development agreements; and (b) all authorities conferred on the developer with respect to the SEZ concerned, including specifically any provisions pertaining to the developer's authority to— (i) admit enterprises into the SEZ in accordance with the zone admission criteria and allot land to them in accordance with agreed eligibility criteria and procedures; (ii) act as a liaison and facilitating agency between the State SEZ Authority and zone enterprise; (iii) all financial obligations of the developer, including any obligation to make payment for the allocation of land and provision of services by public authorities; and (iv) clear provisions regarding the responsibility of maintenance of infrastructure and utility services **(**2) A development agreement shall also include— (i) rights, protections and entitlements of the developer with respect to the SEZ concerned, established or allowed under this Act or any other applicable law; (ii) rights, protections and entitlements of zone enterprises in the SEZ concerned, established or allowed under this Act or any other applicable law together with a prescribed procedure for the invocation of such rights, protections and entitlements by the developer; (iii) provision for the settlement of disputes, including disputes on behalf of zone enterprises through arbitrations; and (iv) rights or titles and other legal authority of the State SEZ Authority superior to it in terms of the provisions of this Act. **37. Jurisdiction of court. Without prejudice to the provisions of section 39.** (a) the High Court of AJK shall have exclusive original civil jurisdiction with respect to all disputes between the developer of that SEZ and any governmental authority or agency, to the extent that such dispute arises out of, or relates to, a development agreement;

the criteria under this Act and to be applied by developers in deciding whether or not to admit an enterprise into a particular SEZ including thereof Zone approval criteria **2(t) Zone development plan** means a business plan for developing a SEZ;	approval, the development agreement shall be signed jointly by the Secretary of the BOA. (6) If the BOA does not approve a development agreement submitted to it, the State SEZ Authority that submitted the development agreement, may re-submit the development agreement after either renegotiating the terms of the proposed development agreement with the developer concerned or after reaching agreement with a different developer selected in accordance with the applicable zone regulations. (7) In case of any grievances, a developer may approach BOA directly or through the State SEZ Authority and BOA shall have the authority to consider, modify or set aside any decision.	**38. Alternative dispute resolution procedures.** Development agreements may provide for the resolution of disputes through arbitration between developers and the Government or agency arising out of, or relating to, such development agreement. (2) Development agreements may authorize developers to pursue and defend the rights of zone enterprises within a particular special economic zone through Arbitration. **13. Simultaneous approval of zone application and development agreement.** (1)The State SEZ Authority may simultaneously submit both a zone application and a development agreement to the BOA for provisional approval, provided that (a) The developer in question either owns all immovable property in the proposed SEZ or holds leasehold rights; and (b) No additional incentives shall be granted by the State SEZ Authority under sub-section (2) of Section 34.

2(p) Special economic zone or "(SEZ)" means a geographically defined and delimited area which has been notified and approved by the BOA. The SEZs shall be deemed to be outside the customs territory of Azad Jammu and Kashmir or Pakistan only for the purposes of this Act	**29. Labour laws**. (1) All labour and employment laws of Azad Jammu and Kashmir shall be applicable to SEZ in the same manner as they are applicable to all territories of Azad Jammu and Kashmir. **25. Land regime.** (1) The Government or any concerned authority shall nominate, for each SEZ, a sub-registrar who shall be the exclusive authority with which ail documents relating to that SEZ shall be liable to be registered under this Act, zone regulations and any other applicable law. (2) Notwithstanding any other law in forced, a developer may not sell, sub-lease or otherwise transfer any rights with respect to any immovable property within a SEZ except through a duly registered instrument."	**32. Extraterritoriality of SEZs**. (1) Subject to the concurrence of the AJK Board of Revenue, every extra-territorial zone shall from the date of its approval by the BOA onwards, be deemed to be a "customs-port" under section 9 of the Customs Act, 1969 (IV of 1969), upon notification by the AJK Board of Revenue. (2) Any transport of goods and provision of services from the customs territory of AJK and Pakistan into an extra-territorial zone shall be considered as an export from-Pakistan. Goods so transported and services so provided shall be eligible for all refunds and other advantage offered under applicable law for exports into a foreign country. (3) Any transport of goods from an extra-territorial zone into the customs territory of AJK or Pakistan shall be considered as an export into AJK or Pakistan of the goods brought into the extra-territorial zone under sub-section (2) and used for producing the goods transported into the customs territory of AJK or Pakistan. (4) Notwithstanding any other provision of this Act, zone enterprises in extra-territorial zones shall be eligible for— (i) Pakistani certificates of origin; and (ii) any advantages under trade or similar agreements of AJK or Pakistan on the same conditions and to the same extent as enterprises within the customs territory of AJK or Pakistan (5) The BOA, in agreement with the AJK Board of Revenue, shall adopt simplified procedures for the implementation of this Section. **33. Incentives for SEZs.** (1) On execution of development agreements, the developer of the particular SEZ as well as all zone enterprises in that SEZ shall be entitled to benefits set out in Sections 36 and 37 respectively. (2) With the objective of promoting hi-tech industries or particular regions, the BOA may grant additional benefits to a particular category of SEZs, zone enterprise, regions or sectors provided that— (i) such additional benefits may only be granted if the BOA finds them to be justified on the basis of an economic impact assessment; (ii) such additional benefits, if granted conditionally, may be liable to be forfeited with retroactive effect if it is finally determined that a developer or zone enterprises has failed to comply with the conditions prescribed for the additional benefits in question; and (iii) the BOA shall make the economic impact

		assessment of a SEZ within five years from the date the agreement is signed and within the first year of the operation of an enterprise. (3) Any additional benefits granted by the BOA— (i) shall be deemed to be included in the relevant development agreement; and (ii) shall become effective on such conditions as the BOA may stipulate (4) Nothing in this Act shall be construed to limit the authority of Government to grant such additional benefits to developers and zone enterprises as are within the scope of their respective statutory powers. **34. Protection of benefits.** (1) All incentives under this Act shall be additional to all incentives, benefits and protections which may be applicable to developers and zone enterprises under generally applicable legislation and international agreements of Pakistan. (2) These benefits shall not be withdrawn prematurely and any change therein shall be to the advantage of the developer of the SEZ or the enterprise.

Annexure 3 – Performance of Existing Industrial Estates in AJK

Sr. #	Name	Year	Area Kanals	Area Acres	Planned No. of Plots	# Allotted / % of planned	# Vacant or Cancelled / % of Allotted	Total Installed/ % of allotted	Units Operational [2] / % of planned	Units Operational/ % of installed	Sick Units / % of installed	Units under Construction / Process / as % of allotted	Total Occupancy / % of planned	Labor [2]	Employ/ Units in Operation
1	Small (old) Industrial Estate Mirpur	1965	869	109	243	228 94%	15 7%	89 39.0%	63 25.9%		26 29.2%	39 17.1%	128 52.7%	910	14
2	New Industrial Estate Mirpur [1]	1998	6,196	775	277	191 69%	86 45%	46 24.1%	42 15.2%		4 8.7%	89.0 47%	135.0 49%	3,064	73
3	Small Industrial Estate Bhimber	1978	360	45	118	88 75%	30 34%	16 18.2%	10 8.5%		6 37.5%	13 14.8%	29 24.6%	152	15
4	Mini Industrial Estate Kotli	1992	94	12	60	59 98%	1 2%	27 45.8%	20 33.3%		7 25.9%	17 28.8%	44 73.3%	182	9
5	Mini Industrial Estate Muzaffarabad	1995	103	13	56	55 98%	1 2%	37 67.3%	23 41.1%		14 37.8%	10 18.2%	47 83.9%	158	7
6	Mini Industrial	1996	128	16	57	40	17	27	27		-	13	40	78	3

	Mirpur & Bhimber (Excluding Dudyal)		7,425	928	**638**	507	131	151	**115**	-	36	141	292	4,126	36
						79%	**26%**	**30%**	**18%**	**76%**	**24%**	**28%**	**46%**		
	Estate Rawalakot					70%	43%	67.5%	47.4%	100.0%	0.0%	32.5%	70.2%		
7	Mini Indus. Estate Dudyal (Mirpur)	Under process	270	34	22	9	13		-		-	9	9	-	
	Totals		**7,750**	**969**	**811**	**666**	**151**	**245**	**185**		**57**	**190**	**432**	**4,544**	**25**
						82%	**23%**	**37%**	**23%**	**76%**	**23%**	**29%**	**53%**		

[1] Presentation to ADB on AJK Industrial & Trade Policy, states New industrial estate Mirpur area as 6196 kanals (775 acres), while draft PC-I mentions 178 acres. The 'Industries investment booklet' provides differing sizes for all the estates.

[2] AJK Statistical Year Book 2018, Planning & Development Department, GoAJK

Annexure 4 - Type of Industries & Employment in Mirpur & Bhimber Industrial Estates

Industrial Estate / Type of Industry	Number of Industries	Employment / Industry
Small (Old) Industrial Estate (Sector D-1) Mirpur		
Wood Working & Furniture house	8	51
Flour Mills	2	74
RCC Pipe Industries	2	14
Educational Craft Industry	1	0
Kashmir Engineering Works	1	7
PVC Pipe Industries	1	8
Mineral Water	1	3
Food Industries and beverages	5	92
Main Hotel	2	70
Plastic Industry	1	6
Ice Factory	3	0
Polyethylene Bag	1	3
Poly Propylene Bag	1	6
Pharmaceuticals	4	162
Soap Factory	3	17
Tile & Jali	12	103
Miscellaneous	15	294
Total	**63**	**910**
Industrial Estate (New Industrial Area) Mirpur		
RCC Pipe Industries	2	15
PVC Pipe Industries	1	13
Mineral Water	2	22
Food Industries and beverages	1	26
Plastic Industry	1	3
Polyethylene Bag	1	24
Poly Propylene Bag	4	216
Pharmaceuticals	1	30
Foam	12	1983
Motor Cycle / Rickshaw	2	108
Auto Parts / Workshop	1	23
Textile Weaving	1	30

L.P.G Refilling	1	5
Transformer Workshop	1	10
Engineer Parts	1	3
Match Factory	1	150
Marble Factory	2	15
Steel Furnaces & Re-rolling	2	86
Aluminum Industry	1	16
Unani Medicines	1	6
Mobile Industry	1	68
Paint Industry	1	7
Disposable Packing Material	1	205
Total	**42**	**3064**
Industrial Estate (Morah Sadahan) Bhimber		
Pharmaceuticals	1	50
Soap Factory	1	1
Packing Material	1	4
Cigarettes	2	32
Ice & Cold Storage	1	8
Steel Re-rolling & Furnaces	1	30
Copper Wire / Enameled Wire	1	3
Mineral Water & Beverage	1	12
Transformer Workshop	1	12
Total	**10**	**152**
Total Mirpur and Bhimber Districts	**115**	**4126**

Source: AJK Statistical Year Book 2018

Annexure 5 - Economic Analysis Draft Feasibility/PC-I

Mirpur SEZ Project

Project Cost (Rs. Mil)	3,831.835	Original PC-I cost
Project Economic cost (Rs. Mil)	3,448.651	(90% of cost)

Year	Capital Cost	O&M Cost	Total Cost	Present Value Costs	Total Benefits	Present Value Benefits	Net Benefits (cash flows)	Present Value Net Benefits
0	3,448.651		3,448.651	3,448.651	-	-	(3,448.65)	(3,448.65)
1	-	2.507	2.507	2.238	363.350	324.420	360.843	322.18
2		2.898	2.898	2.310	1,330.960	1,061.033	1,328.062	1,058.723
3		3.290	3.290	2.342	1,208.328	860.064	1,205.038	857.722
4		3.685	3.685	2.342	836.244	531.448	832.559	529.106
5		4.081	4.081	2.316	478.372	271.441	474.291	269.125
6		4.285	4.285	2.171	120.773	61.187	116.488	59.016
7		4.499	4.499	2.035	126.811	57.363	122.312	55.328
8		4.724	4.724	1.908	133.152	53.778	128.428	51.870
9		4.961	4.961	1.789	139.809	50.417	134.848	48.628
10		5.209	5.209	1.677	146.800	47.266	141.591	45.589
Total	**3,448.7**	**40.139**	**3,488.790**	**3,469.779**	**4,884.599**	**3,318.416**	**1,395.809**	**(151.36)**

Assumes, funds are available immediately Year 0

Sensitivity Analysis Summary results:

	Base Case	Cost -10%	Benefit +10%	Cost +10%	Breakeven: Cost -4.36% or Benefit +4.5613%
Discount Rate (Cost of Capital)	12.00%	12.00%	12.00%	12.00%	12.00%
Benefit Cost Ratio (B/C)	0.956	1.063	1.052	0.869	1.000
IRR (Internal Rate of Return)	10.447%	14.185%	13.818%	7.268%	12.000%
Net Present Value (NPV)	(151.363)	195.615	180.479	(498.34)	0.000

Check		
NPV@IRR	0.000	OK
Salvage value	0%	Rs. Mil

Sensitivity Analysis:

NPV		Costs					
(151.363)	**0.7**	**0.8**	**0.9**	**1**	**1.1**	**1.2**	**1.3**
0.7	(105.95)	(452.93)	(799.91)	(1,146.89)	(1,493.87)	(1,840.84)	(2,187.82)
0.8	225.89	(121.09)	(468.07)	(815.05)	(1,162.02)	(1,509.00)	(1,855.98)
0.9	557.73	210.75	(136.23)	(483.20)	(830.18)	(1,177.16)	(1,524.14)
1	889.57	542.59	195.62	(151.36)	(498.34)	(845.32)	(1,192.30)
1.1	1,221.41	874.43	527.46	180.48	(166.50)	(513.48)	(860.46)
1.2	1,553.25	1,206.28	859.30	512.32	165.34	(181.64)	(528.61)
1.3	1,885.10	1,538.12	1,191.14	844.16	497.18	150.21	(196.77)

Benefits

IRR		Costs					
10.45%	**0.7**	**0.8**	**0.9**	**1**	**1.1**	**1.2**	**1.3**
0.7	10.45%	6.04%	2.45%	-0.56%	-3.12%	-5.34%	-7.29%
0.8	15.23%	10.45%	6.55%	3.28%	0.51%	-1.89%	-3.99%
0.9	19.78%	14.64%	10.45%	6.94%	3.96%	1.39%	-0.87%
1	24.15%	18.66%	14.19%	10.45%	7.27%	4.52%	2.12%
1.1	28.36%	22.53%	17.78%	13.82%	10.45%	7.54%	4.99%
1.2	32.42%	26.27%	21.26%	17.07%	13.52%	10.45%	7.76%
1.3	36.36%	29.90%	24.63%	20.23%	16.49%	13.26%	10.45%

Benefits

	BC ratio	Costs						
	0.96	**0.7**	**0.8**	**0.9**	**1**	**1.1**	**1.2**	**1.3**
Benefits	**0.7**	0.96	0.84	0.74	0.67	0.61	0.56	0.51
	0.8	1.09	0.96	0.85	0.77	0.70	0.64	0.59
	0.9	1.23	1.08	0.96	0.86	0.78	0.72	0.66
	1	1.37	1.20	1.06	0.96	0.87	0.80	0.74
	1.1	1.50	1.32	1.17	1.05	0.96	0.88	0.81
	1.2	1.64	1.43	1.28	1.15	1.04	0.96	0.88
	1.3	1.78	1.55	1.38	1.24	1.13	1.04	0.96

Annexure 6 - Revised PC-I Costs
(Based on assumptions provided in Draft feasibility study/PC-I and information received from P&DD)

AJK Government (Costs External to SEZ)	Qty	Unit	Unit Cost Rs Mil	Rs Mil	Comments
Cost of 132KV transmission line double circuit to site	12	Km	20.0	240.00	*Estimated based on recent tenders.* Peak demand estimated @142.84 MW/day (or 14MW/hour). As a reference, Bong escape generates 84MW/hr and Mangla 1000 MW/hr. Bong power evacuation is through 132KV transmission line coming from Mangla.
Sub stations 132/11KV to door step of SEZ, as per SEZ Act	1	LS	400.0	400.00	LS, PC-I. One 132/11KV grid station with two 30/40MVA 132/11KV transformers (Detailed design report, mentions both 1 & 3 grid stations). Depending on load as SEZ progresses may need one or two additional transformers.
Road Network Improvement to SEZ, dualization	22	Km	200.0	4,400.0	*Estimated based on recent costs for dualization* to connect SEZ to Dina as proposed in draft PC-I.
Railway track up-gradation	5	Km	-	-	Does not appear feasible, abandoned track 2Km away (as the crow flies) is not directly accessible from SEZ. Costs could be @500~700 million /km and up-gradation might involve track upto Dina and improvements at Dina to handle cargo. Cost is not taken in draft PC-I and ignored in these revised estimates also.
Gas transmission line enhancement/extension	30	Km	8.4	252.0	Enhancement upto SEZ may be required. *Rough cost estimate based on SNGPL upcoming construction activities avg/km, 30 Km assumed.* Mirpur City Gas supply project cost in 2002 was Rs. 334 million and completed in over 10 years.
Construction of flood Protection bunds	8	Km	51.6	413.03	*Required as per feasibility study but no cost has been taken in the draft PC-I estimates. Hydrological Report specifies height* varying between 2 ~10.4 m. Two scenarios have been presented: 1) If only 2m high bund is made @185 acres of site will be prone to flooding and cannot be utilized; 2) If 3.4m to 10.4 m high bund is made on both sides of river channel, the natural river channel will be reduced, but SEZ area preserved. This option is stated to be technically and economically unfeasible, but yet recommend in PC-I. Under scenario 2, a @8 Km length of flood protection bunds will be required (based on PC-I maps). *Cost/km estimated from average of tendered cost of similar protection bunds. Approval from irrigation department may be required.*
Land Acquisition & resettlement	4,608	Kanals	0.769	3,543.55	Costs not taken in PC-I*, land costs estimated from http://ajksupremecourt.gok.pk/wp-content/ uploads/2017/04/Ramzan-Datt-Vs.-WAPDA-WAPDA-Vs.-Ramzan-Datt.pdf at 1.063/kanal. Costs provided by P&DD*

					adjusted for 576 acres instead of reported 540 acres. Existing crusher plants, and farms, etc., would require compensation.
Subtotal Rs. Mil (A)				**9,248.58**	

Internal MSEZ Development Costs (Developer/ Public Sector /PPP)	Qty	Unit	Unit Cost Rs Mil	Rs Mil	Comments
Internal Road & protection works				1,888.70	PC-I, updated costs as intimated by P&DD
Waste water & Sewerage System				361.67	PC-I, updated costs as intimated by P&DD
Water Supply System				205.38	PC-I. Cost of one overhead tank has been taken in draft PC-I, while design report provides for three. In addition, 24 tube wells are proposed, while costs have been taken for only three tube wells in draft PC-I estimates.
Water supply system - missing Overhead Water reservoir costs	2	1	29.8	40.90	Cost of missing two reservoirs included. Cost per 150,000 gallons reservoir taken from draft PC-I, updated costs as intimated by P&DD
Cost of remaining 21 tube wells	21	1	24.0	504.00	Total 24 tube wells are proposed in PC-I however cost of only three tube wells has been included. Depth proposed in design report is 155 meters while pumping m/c cost estimates are based on depth of 28m. Total demand is estimated at 3.86 million GPD, each tube well supplying 14,000 GPH.
RCC Bridges (4 Nos)				381.24	PC-I, updated costs as intimated by P&DD
Electrification Works				128.49	PC-I. Total Rs.180.3 Mil cost has been taken in draft PC-I, whereas details provided are for 128.5 Mil.
Electrification works balance works				51.81	*PC-I.* Complete details are not provided in PC-I. Assumed the balance is for the proposed two additional transformers in PC-I.
Construction of RCC Retaining Wall	1	LS		80.06	PC-I, details not provided; updated costs as intimated by P&DD
Administration & public buildings, mosque, clinic, vocational training center, fire brigade station, residential area, motel etc.,	366,376.8	Sq.ft	.003	1,099.13	Proposed in PC-I, but no cost taken. Estimated population in SEZ 23,000 persons with an estimated 15,000 direct jobs. Residential colony planned in SEZ but costs have not been included in draft PC-I.
Combined effluent Treatment Plant	1	LS	50.0	50.00	Feasibility report identifies a CETP as requirement, however in PC-I, no costs have been included. *CEPT cost estimated from https://www.thenews.com.pk/print/242644-Karachi-to-soon-get-5-combined-effluent-treatment-plants*
Solid Waste Management & Landfill site	1	1	15.57	15.57	*No costs have been included in PC-I.* Land fill requirements have been identified in the feasibility report (refer see para 4.3.1.2 para A & B, and page 2 of the Strategic

Internal MSEZ Development Costs (Developer/ Public Sector /PPP)	**Qty**	**Unit**	**Unit Cost Rs Mil**	**Rs Mil**	**Comments**
					Impact Assessment (SIA). Similarly, no plans or costs have been provided for Solid Waste Management systems (pg 51 of SIA report).
Firefighting equipment, vehicles	1	1	50.0	50.00	*Assumption; Cost missing in PC-I*
Gas piping installation internal network	1	LS	150.0	150.00	PC-I, LS
Telecommunication internal network	1	LS	100.0	100.00	PC-I, LS
Sub Total Developer Capital Costs Rs. Mil (B)				**5,107.48**	
Miscellaneous Development Costs					
		Yr0	Yr1		
Phasing for internal civil works		41.84%	58.16%		
Year wise costs		2,137.07	2,970.41		
Escalation @ 6.5% on second year costs	6.50%			193.08	
Subtotal Development costs including escalation Rs. Mil (C)				**5,300.56**	
Consultancy charges % of (B)	3.00%			153.22	
Advertisement costs				5.00	Only Rs.500,000 have been taken in draft PC-I. This would hardly cover local advertising in print media, while strategy mentions adverts, brochures, TV, etc. Cost estimates revised.
Subtotal Rs. Mil (D)				**5,458.78**	
Contingencies [Physical] on (B)	10%			510.75	Contingencies were not included in draft PC-I
Salvage Value					Salvage value was not included in draft PC-I economic analysis.

Total development cost within SEZ Rs. Mil **(E)**				5,969.53	
Total development cost including external linkages, utilities etc., **(A+E)**				15,218.11	
Economic costs for development within SEZ	0.9			**5,372.58**	Used world price numeraire; standard conversion factor of 0.90, Refer ADB guide estimation-project-costs-benefits-oct2013.pdf
Economic cost for SEZ including developing linkages, utilities, etc.	0.9			**13,696.30**	Used world price numeraire; standard conversion factor of 0.90, Refer ADB guide estimation-project-costs-benefits-oct2013.pdf

Annexure 7 - Reference sources for cost estimates

Electrical Transmission lines 132 KV

Average cost taken from various sources, adjusted for price escalation where applicable

https://www.usea.org/sites/default/files/event-/16-3-14%20NTDC%20projects%20required%20Financing.pptx

NTDC Projects for which financing is required 16-3-2014.pptx, slide 9

https://www.thefreelibrary.com/132+KV+double+circuit+transmission+line+inaugurated.-a0453006572

https://www.thenews.com.pk/print/103448-Construction-of-grid-stations-transmission-lines-in-progress

http://enggpost.com/cdwp-approves-18-projects/

Railways – cost /km derived from:

https://tribune.com.pk/story/2028965/2-imf-deal-overshadows-cpecs-ml-railway-project/

http://cpec.gov.pk/project-details/30

Gas transmission lines, upcoming projects

https://www.sngpl.com.pk/web/page.jsp?pgids=521&pgname=PAGES_NAME_a&secs=ss7xa852op845&cats=ct456712337&artcl=artuyh709123465

Land Acquisition & Resettlement

http://ajksupremecourt.gok.pk/wp-content/uploads/2017/04/Ramzan-Datt-Vs.-WAPDA-WAPDA-Vs.-Ramzan-Datt.pdf

Cost of water source development and additional tube-wells

Derived from PC-I estimates

Cost of flood protection bund

Average costs with escalation used from

www.irispunjab.gov.pk:8088/Items/MTDF/Irrigation%202017-2018.pdf

ADP 8197, 8106, 8093; Irrigation 2017-2018.pdf

https://www.adb.org/sites/default/files/project-documents/.../49038-001-iee-02.pdf

http://www.pndpunjab.gov.pk/node/1619

Combined Effluent Treatment Plant

https://www.thenews.com.pk/print/242644-Karachi-to-soon-get-5-combined-effluent-treatment-plants

CETP O&M costs: Greater Karachi Sewerage Plan 2007-2011.pdf

Landfill Site Development

https://www.dawn.com/news/1253061/first-sanitary-landfill-site-operational-in-lahore

Annexure 8 - Revised Cost & Revenue Estimates

Table A-7 1: Market prices for lease/sale of industrial plots[76]

Type	Location	Size (Kanals)	Price Rs.	Price/Kanal '000
Industrial plot	Sangjani	2.40	20,000,000	8,333
Industrial plot	Gujrat	5.00	30,000,000	6,000
Industrial plot	Gujrat	2.60	28,000,000	10,769
Industrial plot	Gujrat	14.50	8,550,000	590
Industrial plot	Gujrat	2.00	50,000,000	25,000
Industrial plot	Bhimber	7.00	15,000,000	2,143
Industrial plot	Gujar Khan	82.00	80,000,000	976
Industrial plot	Gujar Khan	73.00	219,000,000	3,000
Industrial plot	Gujranwala	4.00	36,000,000	9,000
Industrial plot	Gujranwala	1.00	9,000,000	9,000
Industrial plot	Gujranwala	0.80	9,000,000	11,250
Industrial plot	Gujranwala	0.45	5,000,000	11,111
Industrial plot	Gujranwala	1.00	5,500,000	5,500
Industrial plot	Rawat	2.00	12,000,000	6,000
Industrial plot	Rawat	4.00	30,000,000	7,500
Industrial plot	Jhelum	90.00	100,000,000	1,111
Industrial plot	Jhelum	80.00	280,000,000	3,500
Industrial plot	Jhelum	50.00	100,000,000	2,000
Industrial plot	Jhelum	1.00	2,000,000	2,000
Industrial plot	Sialkot	3.55	23,075,000	6,500
Industrial plot	Rawat	5.00	65,000,000	13,000
Industrial plot	Rawat	2.00	25,000,000	12,500
Industrial plot	Rawat	4.00	18,000,000	4,500
Industrial plot	Rawat	2.00	17,000,000	8,500
Industrial plot	Gujrat	1.10	12,000,000	10,909
Industrial plot	Gujrat	1.00	12,500,000	12,500
Industrial plot	Gujrat	12.00	100,000,000	8,333

[76] Online market survey zameen.com and Olx.com

Industrial plot	Gujrat	11.50	105,000,000	9,130
Industrial plot	Gujrat	2.00	30,000,000	15,000
Industrial plot	Gujrat	0.80	15,000,000	18,750
Industrial plot	Jhelum	18.5	140,000,000	7,568
Industrial plot	Humak Industrial Estate	5	67,500,000	13,500
Industrial plot	Humak Industrial Estate	6.7	111,000,000	16,567

Table A-7 2: Market prices for lease/sale of commercial plots and spaces

Type	Location	Area sq ft	Price	Price/ sq ft	Size in Marlas	Price/ Marla '000
Grey structure commercial	Bahria Enclave	365	8,700,000	23,836	1.34	6,489
Grey structure commercial	Bahria Enclave	465	7,900,000	16,989	1.71	4,625
Grey structure commercial	Bahria Enclave	439	8,700,000	19,818	1.61	5,395
Grey structure commercial	Bahria Enclave	541	14,600,000	26,987	1.99	7,347
Grey structure commercial	Bahria Enclave	320	19,000,000	59,375	1.18	16,165
Grey structure commercial	Bahria Enclave	210	8,000,000	38,095	0.77	10,371
Undeveloped Plot	Bhimber	5,445	50,000,000	9,183	20.00	2,500
Grey space shopping Mall	DHA	480	14,400,000	30,000	1.76	8,168
Grey space shopping Mall	DHA	213	9,585,000	45,000	0.78	12,251
Grey space shopping Mall	DHA	226	10,200,000	45,133	0.83	12,287
Grey space shopping Mall	DHA	214	8,560,000	40,000	0.79	10,890
Grey space shopping Mall	DHA	264	15,800,000	59,848	0.97	16,294
Undeveloped Plot	DHA Tulip Valley	1,089	4,000,000	3,673	4.00	1,000
Undeveloped Plot	Dinga	2,450	4,500,000	1,837	9.00	500
Undeveloped Plot	Gujar Khan	5,445	2,200,000	404	20.00	110
Undeveloped Plot	Gujar Khan	2,723	2,300,000	845	10.00	230

Type	Location	Area sq ft	Price	Price/ sq ft	Size in Marlas	Price/ Marla '000
Undeveloped Plot	Gujar Khan	16,335	47,500,000	2,908	60.00	792
Undeveloped Plot	Gujranwala	19,058	98,000,000	5,142	70.00	1,400
Undeveloped Plot	Gujranwala	2,450	5,000,000	2,041	9.00	556
Undeveloped Plot	Gujrat	3,675	18,225,000	4,959	13.50	1,350
Undeveloped Plot	Gujrat	545	2,000,000	3,673	2.00	1,000
Undeveloped Plot	Gujrat	7,623	33,600,000	4,408	28.00	1,200
Grey Structure	Gulberg Green	188	1,504,000	8,000	0.69	2,178
Grey Structure	Gulberg Green	167	1,375,688	8,238	0.61	2,243
Grey Structure	Gulberg Green	208	2,340,000	11,250	0.76	3,063
Grey Structure	Gulberg Green	180	7,200,000	40,000	0.66	10,890
Grey Structure	Gulberg Green	218	8,720,000	40,000	0.80	10,890
Grey Structure	Gulberg Green	285	9,120,000	32,000	1.05	8,712
Grey Structure	Gulberg Green	285	11,400,000	40,000	1.05	10,890
Undeveloped Plot	Hafizabad	10,890	7,000,000	643	40.00	175
Undeveloped Plot	Islamabad Emaar	1,089	22,500,000	20,661	4.00	5,625
Undeveloped Plot	Jhelum	1,089	560,000	514	4.00	140
Undeveloped Plot	Jhelum	2,723	2,000,000	735	10.00	200
Undeveloped Plot	Jhelum	5,445	15,000,000	2,755	20.00	750
Undeveloped Plot	Jhelum	1,089	8,550,000	7,851	4.00	2,138
Undeveloped Plot	Jhelum	1,361	9,000,000	6,612	5.00	1,800
Undeveloped Plot	Kharian	10,890	18,000,000	1,653	40.00	450
Undeveloped Plot	Kharian	5,445	10,000,000	1,837	20.00	500
Undeveloped Plot	Kharian	35,393	130,000,000	3,673	130.00	1,000
Undeveloped Plot	Kharian	33,215	158,600,000	4,775	122.00	1,300
Undeveloped Plot	Kharian	3,812	30,000,000	7,871	14.00	2,143

Type	Location	Area sq ft	Price	Price/ sq ft	Size in Marlas	Price/ Marla '000
Undeveloped Plot	Lalamusa	70,785	52,000,000	735	260.00	200
Undeveloped Plot	Lalamusa	1,361	1,150,000	845	5.00	230
Undeveloped Plot	Lalamusa	38,115	34,500,000	905	140.00	246
Undeveloped Plot	Lalamusa	1,634	1,820,000	1,114	6.00	303
Undeveloped Plot	Lalamusa	87,120	200,000,000	2,296	320.00	625
Undeveloped Plot	Lalamusa	21,780	56,000,000	2,571	80.00	700
Undeveloped Plot	Mangla, Dina	27,225	50,000,000	1,837	100.00	500
Undeveloped Plot	Mangla, Dina	898	5,000,000	5,565	3.30	1,515
Undeveloped Plot	Mirpur	5,445	12,000,000	2,204	20.00	600
Undeveloped Plot	Mirpur	5,445	22,500,000	4,132	20.00	1,125
Undeveloped Plot	Mirpur	1,361	450,000	331	5.00	90
Undeveloped Plot	Rawat	3,267	9,000,000	2,755	12.00	750
Undeveloped Plot	Sialkot	16,335	6,000,000	367	60.00	100

Table A-7 3: Management & Operation costs

Description	Per month/ person or unit	Qty	Rs /month
Security Services, 3 / location each shift, 3 shifts @6 locations + transport, uniforms etc	30,000	54	1,620,000
SEZ Admin staff	84,583	12	1,015,000
SEZ Estate management staff	93,929	14	1,315,000
Fire & emergency services, 4 persons, 3 shifts	50,227	22	1,105,000
CE Treatment Plant O& M @5% Cap Cost	208,333	1	208,333
Admin building operations - utilities, support staff, transport vehicles, furnishing etc	1,660,000	1	1,660,000
Staff Housing & facilities maintenance	5,000	102	510,000
Sub Total			**7,433,333**
M&O charges overheads (to cover Misc, one window operations, customs etc.,)			10%

Description	Per month/ person or unit	Qty	Rs /month
			743,333
Total per month			**8,176,667**
Total per annum			**98,120,000**

Table A-7 4: SEZ Administration staff costs

Post	Qty	Salary/ month	Rs/ month
Chief Administration	1	175,000	175,000
Deputy Chief / planning	1	150,000	150,000
Accountant	2	75,000	150,000
Evaluations	3	90,000	270,000
Documentation Control	2	75,000	150,000
Support	3	40,000	120,000
	12		**1,015,000**

Table A-7 5: SEZ Estate management staff

Post	Qty	Salary/month	Total Rs/ month
EM Services head	1	175,000	175,000
Dy EM Services / planning	1	150,000	150,000
EMP officer	1	110,000	110,000
Documentation Controller	2	75,000	150,000
Engineers (Elec, Mech, Civil, Public Health etc.,)	4	115,000	460,000
Accounts	2	75,000	150,000
Support	3	40,000	120,000
	14		**1,315,000**

Table A-7 6: Fire and EMS services staff

Post	Qty	Salary/ month	Total Rs/ month
Chief Fire and EMS	1	100,000	100,000
Medical officer	2	90,000	180,000
Para medical nurses/staff	4	50,000	200,000
Fire Chief	1	65,000	65,000
Firemen	12	40,000	480,000
Support	2	40,000	80,000
	22		**1,105,000**

Table A-7 7: Administration office expenses

Description	Qty	Cost/ month	Total Rs/ month
Furnishings & equipment (depreciated cost over 5 years)	1	50,000	50,000
Utilities	1	100,000	100,000
Support Staff	4	40,000	160,000
Transport Pool vehicles (leased)	14	100,000	1,400,000
	19		**1,660,000**

Table A-7 8: Water supply O&M costs

Description	Tube-wells	Cost / month	Rs / Annum
For one tube-well (PC-I, power cost)	1	20,500	246,000
Overheads Operators & Maintenance/month etc.,	1	51,250	615,000
Total cost/ tube-well	**1**	**71,750**	861,000
Total / annum phase I +II (24 pumping stations)	24		**20,664,000**

Table A-7 9: Common area and SEZ maintenance costs

Description	Resource cost	Resource /acre	Cost /acre/ month	Total/ month
Horticulture/ Floriculture & Landscaping	25,000	0.10	2,500	421,250
Solid Waste collection including transport, disposal etc.,	25,000	0.10	2,500	1,440,000
Electric - street and other lighting	2,500	1	2,500	1,440,000
Water Supply - common areas only (assumed one cost of tube-well/ annum for common areas)	426	1	426	71,750
Roads and other	5,000	1	5,000	551,500
Drains, lights, etc.,	1,000	1	1,000	110,300
Sub Total			**13,926**	**4,034,800**
Overheads			10%	403,480
Total per month				**4,438,280**
Total per annum				**53,259,360**

Table A-7 10: Other costs - Vocational institute & truck terminal

Training Facility	Trainees/ month	Cost / month/ trainee	Total Rs./ Month	Rs. / Annum
Operating Expenses (staff, overheads, materials etc)	500	500	250,000	3,000,000
PC-I: Capacity 500 persons/month, phasing as per land sales				
Truck terminal	**Slots**	**Cost/ per day**	**Days**	**Rs. /Annum**
50 slots (PC-I)	50	330	360	5,940,000
			Total	**8,940,000**
Note: 50 truck slots.15 staff for operations @30,000 per month/staff + 10% overheads. Phasing as per land sales				

Table A-7 11: Revenues (Service charges) @ 5% on O&M costs

Revenue from Management & Operations charges % over cost	98,120,000	5%	103,026,000
Revenue from water supply % over cost	20,664,000	5%	21,697,200
Revenue from CAM & SEZ Maintenance % over costs	53,259,360	5%	55,922,328
SEZ Electrical Charges - Direct metering of individual industries, no revenue			
Revenue from training and truck terminal % over cost	8,940,000	5%	9,387,000

Table A-7 12: Covered area estimates of public areas/amenities in SEZ

Land Use Plan (Draft PC-I)	**Acres**	**Kanals**	**% Covered**	**@Covered area sq. ft**
Trucking terminal	6.32	50.56	20%	55,060.0
SEZ office	1.92	15.36	50%	41,817.8
Vocational Training Institute	2.51	20.08	60%	65,601.6
Filling station	1.24	9.92	0%	-
Mosques	1.24	9.92	60%	32,408.8
Rescue / Emergency Services	1.15	9.2	30%	15,028.3
Fire brigade	4.18	33.44	30%	54,624.4
CE Treatment plant	7.11	56.88		-
Grid Station	7.98	63.84		-
Motel	0.41	3.28	100%	17,859.7
Green belt	2.41	19.28		-
Total	**36.47**	**291.76**		**282,400.5**
Residential Colony @240 SEZ staff	7.56	60.48	25.5%	83,975.3
Total Covered Area				**366,375.8**

Table A-7 13: Landfill cost estimate

Landfill site (based on Lahore project, 2250 tons/day)					**MSEZ Landfill**	
Hectares	Cost Rs. Mil	Cost/Hectare	Acres	Development cost/ Ac	Assumed area Ac	Total cost
52	1000	19.231	128.492	7.783	2.00	15.57

Annexure 9 - Revised PC-I/Economic Analysis – A developer's perspective
Scenario 1: SMEZ Internal Development – A Developer's Perspective

	Revenues					Costs						Cash flows	
Year	Land sales/leases	Water supply	O&M	**Total Rev**	**PV Rev**	Capex	Water Supply	O&M	Salvage Value	**Total Cost**	**PV Costs**	**Net Cash flows**	**PV Cash Flows**
0		-	-	**-**	**-**	2,247.99	-	-		**2,247.99**	**2,247.99**	**(2,247.99)**	(2,247.99)
1	863.00	2.71	16.83	**882.55**	**787.99**	3,124.58	2.583	16.032		**3,143.20**	**2,806.43**	**(2,260.65)**	(2,018.44)
2	4,315.00	13.56	101.00	**4,429.56**	**3,531.22**		12.92	96.19		**109.11**	**86.98**	**4,320.45**	3,444.24
3	1,726.00	18.08	134.67	**1,878.75**	**1,337.26**		17.22	128.26		**145.48**	**103.55**	**1,733.27**	1,233.71
4	1,726.00	21.70	168.34	**1,916.03**	**1,217.67**		20.66	160.32		**180.98**	**115.02**	**1,735.05**	1,102.65
5		21.70	168.34	**190.03**	**107.83**		20.66	160.32		**180.98**	**102.69**	**9.05**	5.13
6		21.70	168.34	**190.03**	**96.28**		20.66	160.32		**180.98**	**91.69**	**9.05**	4.58
7		21.70	168.34	**190.03**	**85.96**		20.66	160.32		**180.98**	**81.87**	**9.05**	4.09
8		21.70	168.34	**190.03**	**76.75**		20.66	160.32		**180.98**	**73.10**	**9.05**	3.65
9		21.70	168.34	**190.03**	**68.53**		20.66	160.32		**180.98**	**65.26**	**9.05**	3.26
10		21.70	168.34	**190.03**	**61.19**		20.66	160.32		**180.98**	**58.27**	**9.05**	2.91
11		21.70	168.34	**190.03**	**54.63**		20.66	160.32		**180.98**	**52.03**	**9.05**	2.60
12		21.70	168.34	**190.03**	**48.78**		20.66	160.32		**180.98**	**46.45**	**9.05**	2.32
13		21.70	168.34	**190.03**	**43.55**		20.66	160.32		**180.98**	**41.48**	**9.05**	2.07
14		21.70	168.34	**190.03**	**38.88**		20.66	160.32		**180.98**	**37.03**	**9.05**	1.85
15		21.70	168.34	**190.03**	**34.72**	644.71	20.66	160.32		**825.69**	**150.85**	**(635.66)**	(116.13)
16		21.70	168.34	**190.03**	**31.00**	967.06	20.66	160.32		**1,148.05**	**187.27**	**(958.02)**	(156.27)

17		21.70	168.34	**190.03**	**27.68**		20.66	160.32		**180.98**	**26.36**	**9.05**	1.32
18		21.70	168.34	**190.03**	**24.71**		20.66	160.32		**180.98**	**23.54**	**9.05**	1.18
19		21.70	168.34	**190.03**	**22.06**		20.66	160.32		**180.98**	**21.01**	**9.05**	1.05
20		21.70	168.34	**190.03**	**19.70**		20.66	160.32		**180.98**	**18.76**	**9.05**	0.94
21		21.70	168.34	**190.03**	**17.59**		20.66	160.32		**180.98**	**16.75**	**9.05**	0.84
22		21.70	168.34	**190.03**	**15.70**		20.66	160.32		**180.98**	**14.96**	**9.05**	0.75
23		21.70	168.34	**190.03**	**14.02**		20.66	160.32		**180.98**	**13.35**	**9.05**	0.67
24		21.70	168.34	**190.03**	**12.52**		20.66	160.32		**180.98**	**11.92**	**9.05**	0.60
25		21.70	168.34	**190.03**	**11.18**		20.66	160.32	(2,149.03)	**(1,968.05)**	**(115.77)**	**2,158.08**	126.95
	8,629.99	511.69	3,955.88	**13,097.57**	7,787.39	6,984.35	487.33	3,767.50	(2,149.03)	**9,090.15**	6,378.86	4,007.41	1,408.53

NPV	**IRR**	**B/C ratio**
1,408.53	29.226 %	1.221

Scenario 1: Base Case Sensitivity Analysis

Higher factor = more Revenue	NPV	Cost factor										
	1,408.53	**0.700**	**0.800**	**0.900**	**1.000**	**1.100**	**1.200**	**1.300**	**1.400**	**1.500**	**1.600**	**1.700**
	0.700	986	348	(290)	(928)	(1,566)	(2,203)	(2,841)	(3,479)	(4,117)	(4,755)	(5,393)
	0.800	1,765	1,127	489	(149)	(787)	(1,425)	(2,063)	(2,700)	(3,338)	(3,976)	(4,614)
	0.900	2,543	1,906	1,268	630	(8)	(646)	(1,284)	(1,922)	(2,560)	(3,198)	(3,835)
	1.000	3,322	2,684	2,046	1,409	771	133	(505)	(1,143)	(1,781)	(2,419)	(3,057)
	1.100	4,101	3,463	2,825	2,187	1,549	911	274	(364)	(1,002)	(1,640)	(2,278)
	1.200	4,880	4,242	3,604	2,966	2,328	1,690	1,052	414	(223)	(861)	(1,499)
	1.300	5,658	5,021	4,383	3,745	3,107	2,469	1,831	1,193	555	(83)	(720)
	1.400	6,437	5,799	5,161	4,523	3,886	3,248	2,610	1,972	1,334	696	58
	1.500	7,216	6,578	5,940	5,302	4,664	4,026	3,389	2,751	2,113	1,475	837

Higher factor = more Revenue	IRR	Cost factor										
	29.23%	**0.700**	**0.800**	**0.900**	**1.000**	**1.100**	**1.200**	**1.300**	**1.400**	**1.500**	**1.600**	**1.700**
	0.700	29.2%	18.0%	7.0%	0.3%	-2.4%	-4.0%	-5.1%	-5.8%	-6.4%	-6.9%	-7.3%
	0.800	40.4%	29.2%	19.4%	9.7%	2.1%	-1.3%	-3.1%	-4.3%	-5.2%	-5.8%	-6.4%
	0.900	50.8%	39.1%	29.2%	20.5%	11.9%	4.0%	-0.1%	-2.2%	-3.6%	-4.5%	-5.3%
	1.000	60.8%	48.3%	38.0%	29.2%	21.3%	13.6%	6.1%	1.2%	-1.3%	-2.8%	-3.9%
	1.100	70.5%	57.1%	46.3%	37.1%	29.2%	22.0%	15.0%	8.0%	2.6%	-0.3%	-2.1%
	1.200	79.9%	65.7%	54.2%	44.6%	36.4%	29.2%	22.6%	16.2%	9.7%	4.0%	0.7%
	1.300	89.1%	74.0%	61.9%	51.8%	43.3%	35.9%	29.2%	23.1%	17.2%	11.2%	5.6%
	1.400	98.1%	82.2%	69.4%	58.8%	49.9%	42.2%	35.4%	29.2%	23.5%	18.0%	12.5%
	1.500	107.0%	90.2%	76.8%	65.7%	56.3%	48.3%	41.2%	34.9%	29.2%	23.9%	18.8%

Higher factor=more Revenue	B/C	Cost factor										
	1.22	**0.700**	**0.800**	**0.900**	**1.000**	**1.100**	**1.200**	**1.300**	**1.400**	**1.500**	**1.600**	**1.700**
	0.700	1.22	1.07	0.95	0.85	0.78	0.71	0.66	0.61	0.57	0.53	0.50
	0.800	1.40	1.22	1.09	0.98	0.89	0.81	0.75	0.70	0.65	0.61	0.57
	0.900	1.57	1.37	1.22	1.10	1.00	0.92	0.85	0.78	0.73	0.69	0.65
	1.000	1.74	1.53	1.36	1.22	1.11	1.02	0.94	0.87	0.81	0.76	0.72
	1.100	1.92	1.68	1.49	1.34	1.22	1.12	1.03	0.96	0.90	0.84	0.79
	1.200	2.09	1.83	1.63	1.46	1.33	1.22	1.13	1.05	0.98	0.92	0.86
	1.300	2.27	1.98	1.76	1.59	1.44	1.32	1.22	1.13	1.06	0.99	0.93
	1.400	2.44	2.14	1.90	1.71	1.55	1.42	1.31	1.22	1.14	1.07	1.01
	1.500	2.62	2.29	2.03	1.83	1.66	1.53	1.41	1.31	1.22	1.14	1.08

NPV	Cost Factor										
872.10	**0.800**	**0.85**	**0.90**	**0.95**	**1.00**	**1.05**	**1.10**	**1.15**	**1.20**	**1.25**	**1.30**
0.80	1,127	808	489	170	(149)	(468)	(787)	(1,106)	(1,425)	(1,744)	(2,063)
0.85	1,516	1,197	878	559	240	(79)	(397)	(716)	(1,035)	(1,354)	(1,673)
0.90	1,906	1,587	1,268	949	630	311	(8)	(327)	(646)	(965)	(1,284)
0.95	2,295	1,976	1,657	1,338	1,019	700	381	62	(257)	(576)	(894)
1.00	2,684	2,365	2,046	1,727	1,409	1,090	771	452	133	(186)	(505)
1.05	3,074	2,755	2,436	2,117	1,798	1,479	1,160	841	522	203	(116)
1.10	3,463	3,144	2,825	2,506	2,187	1,868	1,549	1,230	911	593	274
1.15	3,852	3,533	3,215	2,896	2,577	2,258	1,939	1,620	1,301	982	663
1.20	4,242	3,923	3,604	3,285	2,966	2,647	2,328	2,009	1,690	1,371	1,052
1.25	4,631	4,312	3,993	3,674	3,355	3,036	2,717	2,399	2,080	1,761	1,442

higher factor = more Rev

1.30	5,021	4,702	4,383	4,064	3,745	3,426	3,107	2,788	2,469	2,150	1,831

Scenario 1: Sample monte carlo simulation result - revenues decrease by 0.969, cost increases by 1.047

Year	Total Revenues	PV Revenues	Total Cost	PV Costs	Net Cash flows	PV Cash flows
0	-	**-**	2,352.57	**2,352.57**	(2,352.57)	**(2,352.57)**
1	855.38	**763.73**	3,289.42	**2,936.98**	(2,434.04)	**(2,173.25)**
2	4,293.22	**3,422.53**	114.18	**91.03**	4,179.04	**3,331.50**
3	1,820.92	**1,296.10**	152.24	**108.36**	1,668.68	**1,187.73**
4	1,857.06	**1,180.19**	189.40	**120.37**	1,667.65	**1,059.82**
5	184.18	**104.51**	189.40	**107.47**	(5.22)	**(2.96)**
6	184.18	**93.31**	189.40	**95.96**	(5.22)	**(2.64)**
7	184.18	**83.32**	189.40	**85.68**	(5.22)	**(2.36)**
8	184.18	**74.39**	189.40	**76.50**	(5.22)	**(2.11)**
9	184.18	**66.42**	189.40	**68.30**	(5.22)	**(1.88)**
10	184.18	**59.30**	189.40	**60.98**	(5.22)	**(1.68)**
11	184.18	**52.95**	189.40	**54.45**	(5.22)	**(1.50)**
12	184.18	**47.28**	189.40	**48.61**	(5.22)	**(1.34)**
13	184.18	**42.21**	189.40	**43.41**	(5.22)	**(1.20)**
14	184.18	**37.69**	189.40	**38.76**	(5.22)	**(1.07)**
15	184.18	**33.65**	864.10	**157.87**	(679.92)	**(124.22)**
16	184.18	**30.04**	1,201.45	**195.98**	(1,017.27)	**(165.94)**

Sample Result - NPV, IRR and B/C [Monte Carlo Simulation]	
NPV	872.10
IRR	22.881%
NPV check @IRR =	0.00
B/C ratio	1.131
Probability of loss	3.62%

17	184.18	**26.83**	189.40	**27.59**	(5.22)	**(0.76)**
18	184.18	**23.95**	189.40	**24.63**	(5.22)	**(0.68)**
19	184.18	**21.38**	189.40	**21.99**	(5.22)	**(0.61)**
20	184.18	**19.09**	189.40	**19.63**	(5.22)	**(0.54)**
21	184.18	**17.05**	189.40	**17.53**	(5.22)	**(0.48)**
22	184.18	**15.22**	189.40	**15.65**	(5.22)	**(0.43)**
23	184.18	**13.59**	189.40	**13.98**	(5.22)	**(0.39)**
24	184.18	**12.13**	189.40	**12.48**	(5.22)	**(0.34)**
25	184.18	**10.83**	(2,059.60)	**(121.15)**	2,243.78	**131.99**
	12,694.42	7,547.69	9,513.01	6,675.59	3,181.41	872.10

Annexure 1 - Revised PC-I/Economic Analysis – Overall MSEZ Costs
Scenario 2: SMEZ Overall project costs - Government' perspective

	Revenues					Costs						Cash flows	
Year	Land sales/leases	Water supply	O&M	**Total Rev**	**PV Rev**	Capex	Water Supply	O&M	Salvage Value	**Total Cost**	**PV Costs**	**Net Cash flows**	**PV Cash Flows**
0		-	-	**-**	**-**	5,730.81	-	-		**5,730.81**	**5,730.81**	**(5,730.81)**	(5,730.81)
1	2,120.95	2.71	16.83	**2,140.50**	**1,911.16**	7,965.50	2.583	16.032		**7,984.11**	**7,128.67**	**(5,843.61)**	(5,217.51)
2	10,604.76	13.56	101.00	**10,719.32**	**8,545.38**		12.92	96.19		**109.11**	**86.98**	**10,610.22**	8,458.40
3	4,241.90	18.08	134.67	**4,394.65**	**3,128.03**		17.22	128.26		**145.48**	**103.55**	**4,249.18**	3,024.48
4	4,241.90	21.70	168.34	**4,431.94**	**2,816.58**		20.66	160.32		**180.98**	**115.02**	**4,250.95**	2,701.56
5		21.70	168.34	**190.03**	**107.83**		20.66	160.32		**180.98**	**102.69**	**9.05**	5.13
6		21.70	168.34	**190.03**	**96.28**		20.66	160.32		**180.98**	**91.69**	**9.05**	4.58
7		21.70	168.34	**190.03**	**85.96**		20.66	160.32		**180.98**	**81.87**	**9.05**	4.09
8		21.70	168.34	**190.03**	**76.75**		20.66	160.32		**180.98**	**73.10**	**9.05**	3.65
9		21.70	168.34	**190.03**	**68.53**		20.66	160.32		**180.98**	**65.26**	**9.05**	3.26
10		21.70	168.34	**190.03**	**61.19**		20.66	160.32		**180.98**	**58.27**	**9.05**	2.91
11		21.70	168.34	**190.03**	**54.63**		20.66	160.32		**180.98**	**52.03**	**9.05**	2.60
12		21.70	168.34	**190.03**	**48.78**		20.66	160.32		**180.98**	**46.45**	**9.05**	2.32
13		21.70	168.34	**190.03**	**43.55**		20.66	160.32		**180.98**	**41.48**	**9.05**	2.07
14		21.70	168.34	**190.03**	**38.88**		20.66	160.32		**180.98**	**37.03**	**9.05**	1.85
15		21.70	168.34	**190.03**	**34.72**	1,643.56	20.66	160.32		**1,824.54**	**333.34**	**(1,634.51)**	(298.62)
16		21.70	168.34	**190.03**	**31.00**	2,465.33	20.66	160.32		**2,646.32**	**431.67**	**(2,456.29)**	(400.67)

17		21.70	168.34	**190.03**	**27.68**		20.66	160.32		**180.98**	**26.36**	**9.05**	1.32
18		21.70	168.34	**190.03**	**24.71**		20.66	160.32		**180.98**	**23.54**	**9.05**	1.18
19		21.70	168.34	**190.03**	**22.06**		20.66	160.32		**180.98**	**21.01**	**9.05**	1.05
20		21.70	168.34	**190.03**	**19.70**		20.66	160.32		**180.98**	**18.76**	**9.05**	0.94
21		21.70	168.34	**190.03**	**17.59**		20.66	160.32		**180.98**	**16.75**	**9.05**	0.84
22		21.70	168.34	**190.03**	**15.70**		20.66	160.32		**180.98**	**14.96**	**9.05**	0.75
23		21.70	168.34	**190.03**	**14.02**		20.66	160.32		**180.98**	**13.35**	**9.05**	0.67
24		21.70	168.34	**190.03**	**12.52**		20.66	160.32		**180.98**	**11.92**	**9.05**	0.60
25		21.70	168.34	**190.03**	**11.18**		20.66	160.32	(5,478.52)	**(5,297.54)**	**(311.62)**	**5,487.57**	322.80
	21,209.52	511.69					487.33		(5,478.52)		14,414.94	9,095.59	2,899.45
			3,955.88	**25,677.09**	17,314.40	17,805.19		3,767.50		**16,581.50**			

NPV	**IRR**	**B/C ratio**
2,899.45	26.267%	1.201

Scenario 2: Base case sensitivity analysis

	NPV	Cost factor										
	2,899	**0.700**	**0.800**	**0.900**	**1.000**	**1.100**	**1.200**	**1.300**	**1.400**	**1.500**	**1.600**	**1.700**
Higher factor = more Revenue	**0.700**	2,030	588	(853)	(2,295)	(3,736)	(5,178)	(6,619)	(8,061)	(9,502)	(10,944)	(12,385)
	0.800	3,761	2,320	878	(563)	(2,005)	(3,446)	(4,888)	(6,329)	(7,771)	(9,212)	(10,654)
	0.900	5,492	4,051	2,610	1,168	(273)	(1,715)	(3,156)	(4,598)	(6,039)	(7,481)	(8,922)
	1.000	7,224	5,782	4,341	2,899	1,458	16	(1,425)	(2,867)	(4,308)	(5,750)	(7,191)
	1.100	8,955	7,514	6,072	4,631	3,189	1,748	306	(1,135)	(2,577)	(4,018)	(5,460)
	1.200	10,687	9,245	7,804	6,362	4,921	3,479	2,038	596	(845)	(2,287)	(3,728)
	1.300	12,418	10,977	9,535	8,094	6,652	5,211	3,769	2,328	886	(555)	(1,997)
	1.400	14,150	12,708	11,267	9,825	8,384	6,942	5,501	4,059	2,618	1,176	(265)
	1.500	15,881	14,440	12,998	11,557	10,115	8,674	7,232	5,791	4,349	2,908	1,466

	IRR	Cost factor										
	26.27%	**0.700**	**0.800**	**0.900**	**1.000**	**1.100**	**1.200**	**1.300**	**1.400**	**1.500**	**1.600**	**1.700**
Higher factor = more Revenue	**0.700**	26.3%	15.9%	7.1%	2.1%	-0.3%	-1.7%	-2.6%	-3.3%	-3.8%	-4.2%	-4.6%
	0.800	36.9%	26.3%	17.1%	9.0%	3.5%	0.7%	-0.9%	-1.9%	-2.7%	-3.3%	-3.7%
	0.900	46.8%	35.6%	26.3%	18.1%	10.7%	5.0%	1.7%	-0.1%	-1.3%	-2.1%	-2.8%
	1.000	56.3%	44.3%	34.6%	26.3%	18.9%	12.1%	6.4%	2.8%	0.7%	-0.6%	-1.6%
	1.100	65.5%	52.8%	42.4%	33.8%	26.3%	19.5%	13.3%	7.7%	3.9%	1.5%	0.0%
	1.200	74.6%	61.0%	50.0%	40.9%	33.1%	26.3%	20.1%	14.3%	9.0%	5.0%	2.4%
	1.300	83.4%	69.0%	57.3%	47.7%	39.6%	32.5%	26.3%	20.5%	15.1%	10.1%	6.0%
	1.400	92.0%	76.8%	64.5%	54.4%	45.9%	38.5%	32.1%	26.3%	20.9%	15.9%	11.2%
	1.500	100.5%	84.5%	71.6%	61.0%	52.0%	44.3%	37.6%	31.7%	26.3%	21.3%	16.5%

	B/C	Cost factor										
	1.20	**0.700**	**0.800**	**0.900**	**1.000**	**1.100**	**1.200**	**1.300**	**1.400**	**1.500**	**1.600**	**1.700**
Higher factor = more Revenue	**0.700**	1.20	1.05	0.93	0.84	0.76	0.70	0.65	0.60	0.56	0.53	0.49
	0.800	1.37	1.20	1.07	0.96	0.87	0.80	0.74	0.69	0.64	0.60	0.57
	0.900	1.54	1.35	1.20	1.08	0.98	0.90	0.83	0.77	0.72	0.68	0.64
	1.000	1.72	1.50	1.33	1.20	1.09	1.00	0.92	0.86	0.80	0.75	0.71
	1.100	1.89	1.65	1.47	1.32	1.20	1.10	1.02	0.94	0.88	0.83	0.78
	1.200	2.06	1.80	1.60	1.44	1.31	1.20	1.11	1.03	0.96	0.90	0.85
	1.300	2.23	1.95	1.73	1.56	1.42	1.30	1.20	1.12	1.04	0.98	0.92
	1.400	2.40	2.10	1.87	1.68	1.53	1.40	1.29	1.20	1.12	1.05	0.99
	1.500	2.57	2.25	2.00	1.80	1.64	1.50	1.39	1.29	1.20	1.13	1.06

Scenario 2: Sample monte carlo simulation result - revenues decrease by 0.984, cost increases by 1.1774

Year	Total Revenues	PV Revenues	Total Cost	PV Costs	Net Cash flows	PV Net cash flows
0	-	-	6,747.14	**6,747.14**	(6,747.14)	**(6,747.14)**
1	2,105.63	**1,880.03**	9,400.06	**8,392.91**	(7,294.43)	**(6,512.88)**
2	10,544.73	**8,406.20**	128.46	**102.40**	10,416.28	**8,303.79**
3	4,323.08	**3,077.08**	171.28	**121.91**	4,151.80	**2,955.17**
4	4,359.75	**2,770.70**	213.08	**135.42**	4,146.67	**2,635.29**
5	186.94	**106.07**	213.08	**120.91**	(26.14)	**(14.83)**
6	186.94	**94.71**	213.08	**107.95**	(26.14)	**(13.24)**
7	186.94	**84.56**	213.08	**96.39**	(26.14)	**(11.83)**
8	186.94	**75.50**	213.08	**86.06**	(26.14)	**(10.56)**
9	186.94	**67.41**	213.08	**76.84**	(26.14)	**(9.43)**
10	186.94	**60.19**	213.08	**68.61**	(26.14)	**(8.42)**
11	186.94	**53.74**	213.08	**61.26**	(26.14)	**(7.52)**
12	186.94	**47.98**	213.08	**54.69**	(26.14)	**(6.71)**
13	186.94	**42.84**	213.08	**48.83**	(26.14)	**(5.99)**
14	186.94	**38.25**	213.08	**43.60**	(26.14)	**(5.35)**
15	186.94	**34.15**	2,148.11	**392.45**	(1,961.18)	**(358.30)**
16	186.94	**30.49**	3,115.63	**508.23**	(2,928.70)	**(477.73)**

Sample Result: NPV, IRR and B/C [Monte Carlo Simulation]	
NPV	61.01
IRR	12.279%
NPV check @IRR =	0.00
B/C ratio	1.004
Probability of loss	5.06%

17	186.94	**27.23**	213.08	**31.03**	(26.14)	**(3.81)**
18	186.94	**24.31**	213.08	**27.71**	(26.14)	**(3.40)**
19	186.94	**21.70**	213.08	**24.74**	(26.14)	**(3.04)**
20	186.94	**19.38**	213.08	**22.09**	(26.14)	**(2.71)**
21	186.94	**17.30**	213.08	**19.72**	(26.14)	**(2.42)**
22	186.94	**15.45**	213.08	**17.61**	(26.14)	**(2.16)**
23	186.94	**13.79**	213.08	**15.72**	(26.14)	**(1.93)**
24	186.94	**12.32**	213.08	**14.04**	(26.14)	**(1.72)**
25	186.94	**11.00**	(6,237.04)	**(366.88)**	6,423.97	**377.88**
	25,258.88	17,032.39	19,522.17	16,971.38	5,736.71	61.01

NPV	Cost factor										
61	**0.80**	**0.85**	**0.90**	**0.95**	**1.00**	**1.05**	**1.10**	**1.15**	**1.20**	**1.25**	**1.30**
0.80	2,320	1,599	878	157	(563)	(1,284)	(2,005)	(2,726)	(3,446)	(4,167)	(4,888)
0.85	3,185	2,465	1,744	1,023	302	(418)	(1,139)	(1,860)	(2,581)	(3,301)	(4,022)
0.90	4,051	3,330	2,610	1,889	1,168	447	(273)	(994)	(1,715)	(2,436)	(3,156)
0.95	4,917	4,196	3,475	2,754	2,034	1,313	592	(129)	(849)	(1,570)	(2,291)
1.00	5,782	5,062	4,341	3,620	2,899	2,179	1,458	737	16	(704)	(1,425)
1.05	6,648	5,927	5,207	4,486	3,765	3,044	2,324	1,603	882	161	(559)
1.10	7,514	6,793	6,072	5,352	4,631	3,910	3,189	2,469	1,748	1,027	306
1.15	8,380	7,659	6,938	6,217	5,497	4,776	4,055	3,334	2,614	1,893	1,172
1.20	9,245	8,525	7,804	7,083	6,362	5,642	4,921	4,200	3,479	2,759	2,038
1.25	10,111	9,390	8,670	7,949	7,228	6,507	5,787	5,066	4,345	3,624	2,904
1.30	10,977	10,256	9,535	8,815	8,094	7,373	6,652	5,932	5,211	4,490	3,769

higher factor = more Rev

Annexure 10 - Evaluation of SEZ Mirpur Using the ADB toolkit

SPECIAL ECONOMIC ZONE (SEZ) ASSESSMENT FRAMEWORK TOOL			
GENERAL INSTRUCTIONS			
INPUT CELLS			
Please read and note the following instructions: **1) This tool requires inputs in the orange shaded cells** **2) User is required to provide inputs only to this sheet** **3) User is requested not to work/change/alter any other sheets of the workbook** **4) As this tool is designed for the feasibility of SEZs , therefore, in absence of existing SEZs, the factors should be observed and responded with respect to the environment (district, province, region etc.).**			
BACKGROUND			
Name of Special Economic Zone	Mirpur		
Location (Province)	AJK		
Location (City)	Mirpur		
Category of Industries	Mixed		Enlist all industrial sectors for the respective SEZ
LOCATION			
Parameter	**Input value**	**Units**	**Instructions**
Distance to nearest airport	145	km	Please enter the approximate distance in kilometers to the nearest airport. Sialkot Airport

Distance to nearest sea port	1380	km	Please enter the approximate distance in kilometers to the nearest seaport. **Some analysis of SEZs have even used Dry ports, this should be clarified in instructions.** We have used Karachi.
Distance to nearest railway station	25	km	Please enter the approximate distance in kilometers to the nearest railway station. Abandoned Railway Track is 2km away (as the crow flies) and nearest functional railway station is Dina, 25 Km. **The instructions should be nearest railway station which can handle bulk industrial cargo/dry port?**
Distance to nearest motorway	175	km	Please enter the approximate distance in kilometers to the nearest motorway. M-2
Distance to existing industrial cluster	40	km	Please enter the approximate distance to the nearest industrial cluster ***(Industrial cluster is defined by ten or more industries)*** **-**Jhelum City. **Suggest industrial cluster definition be more exact - In one specified area/industrial zone? Scattered across a city?**
Type of natural form (Topography)	Valleys/Canyons/ Gorges	Land form	Please select the overall regional topography from the following list: **Site is plain but flood prone area** ***1) Mountainous / Hilly*** ***2) Valleys/ Canyons/ Gorges*** ***3) Plains/Plateaus***
Distance to nearest city centre	12	km	Please enter the approximate distance in kilometers to the nearest city centre - **Should criteria specify size of city having a population of at least xx?** New Mirpur City / Mangla Cantt
INFRASTRUCTURE			
Distance to nearest grid station (220 kV)	150	km	Please enter the approximate distance in kilometers to the nearest grid station. Laraib Power Plant adjacent to SEZ location, average distance from center of site. **Grid station criteria need to be revised, H, M, L ranges are not realistic. Why not 132KV? 220KV is NTDC and 132KV is provincial/AJK.** Closest is Bara Kahu 220 KV Grid Station.

Distance to nearest TELCO tower	12	km	Please enter the approximate distance in kilometers to the nearest TELCO tower. **TELCO towers are placed at distances not more than 10 kms!, usually max is kept at 16 km. This criteria should be revised**
Road length (District)	804	km	Please enter the approximate length of road reported in kilometers by authorities in the district of the SEZ. Statistical Book 2018 metaled roads under PWD **(we should take national highway/motorways/expressway lengths only, almost all districts would score 9 if every type of metaled road is included)**
Distance to the nearest fresh water source	1	km	Please enter the approximate distance in kilometers to the nearest freshwater source (dam, lake, tube well, etc.) - Jhelum River
Distance to the nearest educational facility	12	km	Please enter the approximate distance in kilometers to the nearest educational facility (school, college, university) Mangla city/New Mirpur City. **Criteria should be more specific - what level of educational facility is to be counted; primary? High school? Should the weightage be same?**
Distance to the nearest health facility	12	km	Please enter the approximate distance in kilometers to the nearest health facility (hospitals, dispensaries etc.) Mangla city/New Mirpur City. **Criteria should be more specific - what level of health facility is to be counted; BHU, dispensary, full service hospital only ? etc**
HUMAN RESOURCES			
Human Development Index (District)	0.734	Between 0 and 1	Please enter a value between 0 and 1. UNDP Pakistan HD report
Labour force participation rate (Provincial)	22.9	%	Please enter a %age 0 - 100 (Labour Survey AJK 2017-18)
School enrollment rate (Primary) (District)	81	%	Please enter the net enrollment rate for the region (district) AJK statistics 2018, page 102
Enrolment of vocational institutions (District)	130	People enrolled	Please enter the number of enrollment for the region (district)-Refer AJK Presentation

ABSOLUTE FISCAL INCENTIVES			
Duration for tax exemptions (Number of Years)	10	Number of Years	Please enter the number of years for the duration of tax exemption ***(In case of absence of SEZs, please respond with respect to the provincial reference).*** *Tax exemptions provided to a specific industrial sector or type or to a specific SEZ. For example tax exemptions provided to industries in Masan Free Trade Zone (FTZ) in South Korea.*
%age of tax exemption	80	%	Please enter the %age of tax exemption ***(In case of absence of SEZs, please respond with respect to the provincial reference).*** *Tax exemptions provided to a specific industrial sector or type or to a specific SEZ. For example tax exemptions provided to industries in Masan Free Trade Zone (FTZ) in South Korea.* *Exemption on all income taxes for 10 years for zone enterprises, however sales tax and other local taxes are not income related, and exemption is not specified in SEZ Act*
%age of custom/duty exemption	Yes	Yes/ No	Select either Yes or No ***(In case of absence of SEZs, please respond with respect to the provincial reference).*** *Duty free import provisions provided to a specific industrial sector or type or to a specific SEZ. For example duty free imports of goods was provisioned to industries in Penang Free Zone in Malaysia. One Time Import.* **If this incentive is being provided then why is the score L=3? Also the word %age should be deleted.**
Easy credit schemes	1	Between 1 and 3	Select a number between 1 and 3 Criteria for credit schemes include (employment generation, stock exchange enlistment, extending investment) 3 = All three criteria provided 2 = Two criteria provided 1 = One or none criteria provided ***(In case of absence of SEZs, please respond with respect to the district reference).***

PERFORMANCE BASED INCENTIVES			
Interest free loans	**No**	Yes/No	Select either Yes or No ***(In case of absence of SEZs, please respond with respect to the provincial reference).*** *Performance based incentives include exemptions, leverages and benefits only provided in the condition of set benchmarks of performance for eg. Foreign companies that make investments in Masan FTZ with values greater than $10 million are altogether exempted from rent payments.*
Rent exemption/ Real estate incentives	No	Yes/No	Select either Yes or No ***(In case of absence of SEZs, please respond with respect to the provincial reference).*** *Performance based incentives include exemptions, leverages and benefits only provided in the condition of set benchmarks of performance for eg. Foreign companies that make investments in Masan FTZ with values greater than $10 million are altogether exempted from rent payments.*
HORIZONTAL AND VERTICAL LINKAGES			
Value of Production - VOP - (Provincial)	700	Billion Rupees	Please enter the Value Of Production (VOP) of the province where SEZ is located. In absence of specific data, source used: https://en.wikipedia.org/wiki/List_of_Pakistani_provinces_by_gross_domestic_product, and Rejuvenating Economic Environment in J&K 2013 (2011 estd 3.2b USD). **The link in user manual is data of 2005/6 and does not provide provincial breakup**
Number of Existing Industries (District)	108	Number of Industries	Please enter the number of existing reporting industries in the respective district where SEZ is located. From AJK presentation, functioning units in Industrial estates Mirpur. **The link in user manual is data of 2005/6 and does not provide breakup of industries by district or even province.**
Census value addition at producer prices (%age)	5	%	Please enter value addition as a %age of producer prices. Not available, Estimated, considering mostly small industries. **The link in user manual is data of 2005/6 and**

			does not provide %age values. In addition, no provincial or district level information.
Annual Agricultural Production (000 Tonnes) (Provincial)	1315	000 Tonnes	Please enter the reported annual agricultural productivity in 000 tonnes for the province, AJK Statistics 2018. **Note: Input mapping is not linked to this data cell and needs to be fixed. The link in user manual provides outdated statistics.**
MACROECONOMIC REFORMS			
GDP Growth (National)	3.3	%	Please enter the most recent reported GDP growth %age for the last fiscal term.
Fiscal Deficit (% of GDP) (National)	6.6	%	Please enter the most recent reported fiscal deficit as a %age of national GDP.
Inflation Rate (National)	9.11	%	Please enter the most recent reported inflation rate.
STREAMLINED PROCEDURES			
Ease of Doing Business Index (National)	55.31	Index	Please enter ease of doing buisness index for the country. We have used Index 55.31 and rank is 136. **This should be clearly mentioned as index or rank, index ranges from 0 to 100, while range from 1 to 190. In the H, M, L score if rank is intended then the higher rank (136/190) should get score of 3. And lower index score of 3. This needs to be checked**
%age of ISO certified industries	1	%	Please enter an approximate value of %age of industries with ISO certifications. ***(In case of absence of SEZs, please respond with respect to the provincial reference).*** *This evaluates accountability mechanisms in the region. A system of accountability ensures free flow of processes and efficient production lines for eg. Every SEZ in South Korea has a designated Project Manager.The project manager serves as a guide from initial review to follow-up services and provides legal, accounting, business and administrative facilitation service.* Estimated as 1% based on the type of industries mentioned in AJK presentation

Annual Volume of cargo - import (FT)	5	Freight Tonnes (FT) (Millions)	Please enter an approximate value of import volume of cargo in FT (Annual) **(In case of absence of SEZs, please respond with respect to the provincial reference).** **Not available, estimated based on Cross border trade. AJK production is most likely meeting local consumption demand only, and higher imports needed. AJK statistics 2018, pg 164, and 55** *This indicates the performance of the custom facilitation centres. Provision of custom facilitation centres for eg. staff from the office of Ministry of Trade, Industry & Energy is also available near the zone to provide administrative and paperwork facilitation support in South Korea.*
Annual Volume of cargo - export (FT)	0.5	Freight Tonnes (FT) (Millions)	Please enter an approximate value of export volume of cargo in FT (Annual) **(In case of absence of SEZs, please respond with respect to the provincial reference). Not available, estimated based on Cross border trade. AJK production is most likely meeting local demand only and exportable surplus is very low. AJK Statistics 2018 pg 164, and 55** *This indicates the performance of the the custom facilitation centres. Provision of custom facilitation centres for eg. staff from the office of Ministry of Trade, Industry & Energy is also available near the zone to provide administrative and paperwork facilitation support in South Korea.*
ZONE MONITORING AND REGULATION			
Time period to submit the annual financial statements to auditor general office	4	Number of Months	Please enter the average number of months taken by industries to submit financial statements to auditor general office. Ease of doing Business
Time period to submit the progress report on key performing indicators (KPI)	6	Number of Months	Please enter the average number of months taken by industries to submit the progress report on key performing indicators (KPI) Ease of doing Business
POLITICAL COMMITMENT			

Amendment in SEZ law (Frequency) over the last 10 years (National)	1	Between 1 and 10	Select a number between 1 - 10 *The frequency of amendments show the commitment of the governing authorities towards SEZ growth and development.* SEZ Act 2016
Amendment in foreign investment law (Frequency) over the last 10 years (National)	2	Between 1 and 10	Select a number between 1 - 10 *The frequency of amendments show the commitment of the governing authorities towards SEZ growth and development.* Estimated for AJK
PEACE AND STABILITY			
Polity IV Rank (National)	7	Between -10 and 10	Select a number between -10 and 10 *The Polity IV ranking will show the current security, justice, and governance situation for the respective country.* Polity IV Score Pakistan 2017, from Wikepdia. https://en.wikipedia.org/wiki/Polity_data_series. **It is not Rank**
Global Peace Index (National) (2018)	3.072	Between 1 and 4	Select a number between 1 - 4 *The Global Peace Index is a strong indicator depicting the peace and stability in the country.* http://statisticstimes.com/ranking/global-peace-index.php
ZONE ADMINISTRATION AND MANAGEMENT			
Time required to acquire power connection (days)	117	Number of Days	Please enter the number of days to acquire a power connection by the local authorities ***(In case of absence of SEZs, please respond with respect to the district reference). For Lahore - Ease of Doing Business, pg 35***
Time required to acquire gas connection (days)	120	Number of Days	Please enter the number of days to acquire a gas connection by the local authorities ***(In case of absence of SEZs, please respond with respect to the district reference). Estimated***
%age of industries posessing export licenses	5	%	Please enter the %age of industries possessing export license ***(In case of absence of SEZs, please respond with respect to the provincial reference).*** **Estimated**

SPECIAL ECONOMIC ZONE (SEZ) ASSESSMENT FRAMEWORK TOOL								
Name of Special Economic Zone :		Mirpur						
Location (Province)		AJK						
Location (City)		Mirpur						
Industries		Mixed						
GUIDING PRINCIPLES RANKING SCORECARD								
Parameter	**Input value**	**Units**	**Instructions**	**Rank**	**Score**	**High**	**Medium**	**Low**
LOCATION						**SCORING RANGE**		
Distance to nearest airport	145	km	Please enter the approximate distance in kilometers to the nearest airport.	**L**	**3**	Less than or equal to 30 km	Between 30 and 60 km	Greater than 60 km
Distance to nearest sea port	1380	km	Please enter the approximate distance in kilometers to the nearest sea port.	**L**	**3**	Less than or equal to 600 km	Between 600 and 1200 km	Greater than 1200 km
Distance to nearest railway station	25	km	Please enter the approximate distance in kilometers to the nearest railway station.	**H**	**9**	Less than or equal to 50 km	Between 50 and 150 km	Greater than 150 km

Distance to nearest motorway	175	km	Please enter the approximate distance in kilometers to the nearest motorway.	**M**	**6**	Less than or equal to 60 km	Between 60 and 300 km	Greater than 300 km
Distance to existing industrial cluster	40	km	Please enter the approximate distance to the nearest industrial cluster *(Cluster is defined by 10 or more industries)*	**H**	**9**	Less than or equal to 80 km	Between 80 and 150 km	Greater than 150 km
Type of natural form (Topography)	Valleys/ Canyons/ Gorges	Land form	Please select the overall regional topography from the following list: ***1) Mountainous / Hilly*** ***2) Valleys/ Canyons/ Gorges*** ***3) Plains/Plateaus***	**M**	**6**	Plain/Plateaus	Valleys/ Canyons/ Gorges	Mountainous/ Hilly
Distance to nearest city centre	12	km	Please enter the approximate distance in kilometers to the nearest city centre	**H**	**9**	Less than or equal to 50 km	Between 50 and 100 km	Greater than 100 km
AVERAGE SCORE				**H**	**6.43**			
INFRASTRUCTURE						**SCORING RANGE**		
Distance to nearest grid station (220 kV)	150	km	Please enter the approximate distance in kilometers to the nearest grid station.	**M**	**6**	Less than or equal to 50 km	Between 50 and 200 km	Greater than 200 km
Distance to nearest TELCO tower	12	km	Please enter the approximate distance in kilometers to the nearest TELCO tower.	**H**	**9**	Less than or equal to 50 km	Between 50 and 200 km	Greater than 200 km
Road length (District)	804	km	Please enter the approximate length of road reported by authorities in the district of the SEZ	**M**	**6**	Greater than or equal to 1000 km	Between 250 and 1000 km	Less than or equal to 250 km

Distance to the nearest fresh water source	1	km	Please enter the approximate distance in kilometers to the nearest freshwater source (dam, lake, tube well, etc.)	**H**	**9**	Less than or equal to 200 km	Between 200 and 500 km	Greater than 500 km
Distance to the nearest educational facility	12	km	Please enter the approximate distance in kilometers to the nearest educational facility (school, college, university)	**M**	**6**	Less than or equal to 10 km	Between 10 and 30 km	Greater than 30 km
Distance to the nearest health facility	12	km	Please enter the approximate distance in kilometers to the nearest health facility (hospitals, dispensaries etc.)	**M**	**6**	Less than or equal to 10 km	Between 10 and 30 km	Greater than 30 km
AVERAGE SCORE				**H**	**7**			
HUMAN RESOURCES						**SCORING RANGE**		
Human Development Index (District)	0.734	Between 0 and 1	Please enter a value between 0 and 1.	**H**	**9**	Greater than or equal to 0.6	Between 0.4 and 0.6	Less than or equal to 0.4
Labour force participation rate (Provincial)	22.9	%	Please enter a %age 0 - 100	**L**	**3**	Greater than or equal to 60%	Between 40% and 60%	Less than or equal to 40%
School enrollment rate (Primary) (District)	81	%	Please enter the net enrollment rate for the region (province)	**H**	**9**	Greater than or equal to 70%	Between 30% and 70%	Less than or equal to 30%
Enrolment of vocational institutions (District)	130	People enrolled		**M**	**6**	Greater than or equal to 300	Between 50 and 300	Less than or equal to 50
AVERAGE SCORE				**H**	**6.75**			
ABSOLUTE FISCAL INCENTIVES								

Duration for tax exemptions (Number of Years)	10	Number of Years	Please enter the number of years for the duration of tax exemption ***(In case of absence of SEZs, please respond with respect to the provincial reference).*** *Tax exemptions provided to a specific industrial sector or type or to a specific SEZ. For example tax exemptions provided to industries in Masan Free Trade Zone (FTZ) in South Korea.*	**M**	**6**	Greater than or equal to 20 Years	Between 5 and 20 Years	Less than or equal to 5 Years
%age of tax exemption	80	%	Please enter the %age of tax exemption ***(In case of absence of SEZs, please respond with respect to the provincial reference).*** *Tax exemptions provided to a specific industrial sector or type or to a specific SEZ. For example tax exemptions provided to industries in Masan Free Trade Zone (FTZ) in South Korea.*	**H**	**9**	Greater than or equal to 70%	Between 20 and 70%	Less than or equal to 20%
Duty free imports	Yes	Yes/ No	Select either Yes or No *Duty free import provisions provided to a specific industrial sector or type or to a specific SEZ. For example duty free imports of goods was provisioned to industries in Penang Free Zone in Malaysia*	**L**	**3**			
Easy credit schemes	1	Between 1 and 3	Select a number between 1 and 3 Criteria for credit schemes include (employment generation, stock exchange enlistment, extending	**L**	**3**			

			investment) 3 = All three criteria provided 2 = Two criteria provided 1 = One or none criteria provided ***(In case of absence of SEZs, please respond with respect to the district reference).***					
AVERAGE SCORE				**M**	**5.25**			
HORIZONTAL AND VERTICAL LINKAGES						**SCORING RANGE**		
Value of Production - VOP - (Provincial)	700	Billion Rupees	Please enter the Value Of Production (VOP) of the province where SEZ is located	**M**	**6**	Greater than 1000 Billion Rupees	Between 150 and 1000 Billion Rupees	Less than or equal to 150 Billion Rupees
Number of existing industries (District)	108	Number of Industries	Please enter the number of existing reporting industries in the respective district where SEZ is located.	**M**	**6**	Greater than 150 industries	Between 30 and 150 industries	Less than or equal to 30 industries
Census value addition at producer prices (%age)	5	%	Please enter value addition as a %age of producer prices	**M**	**6**	Greater than 10%	Between 5 and 10%	Less than or equal to 5%
Annual Agricultural Production (000 Tonnes) (Provincial)	1000	000 Tonnes	Please enter the reported annual agricultural productivity in 000 tonnes for the province	**L**	**3**	Greater than 100,000,000 tonnes	Between 50,000,000 and 100,000,000 tonnes	Less than or equal to 50,000,000 tonnes
AVERAGE SCORE				**M**	**5.25**			
PERFORMANCE BASED INCENTIVES						**SCORING RANGE**		
Interest free loans	No	Yes/No	Select either Yes or No *Performance based incentives include*	**L**	**3**			

			exemptions, leverages and benefits only provided in the condition of set benchmarks of performance for eg. Foreign companies that make investments in Masan FTZ with values greater than $10 million are altogether exempted from rent payments.					
Rent exemption/ Real estate incentives	No	Yes/No	Select either Yes or No *Performance based incentives include exemptions, leverages and benefits only provided in the condition of set benchmarks of performance for eg. Foreign companies that make investments in Masan FTZ with values greater than $10 million are altogether exempted from rent payments.*	**L**	**3**			
AVERAGE SCORE				**L**	**3**			

SPECIAL ECONOMIC ZONE (SEZ) ASSESSMENT FRAMEWORK TOOL							
Name of Special Economic Zone :	Mirpur						
Location (Province)	AJK						
Location (City)	Mirpur						
Industries	Mixed						
GOVERNANCE FACTOR RANKING SCORECARD							
Parameter	**Input value**	**Units**	**Rank**	**Score**	**High**	**Medium**	**Low**
MACROECONOMIC REFORMS					**SCORING RANGE**		
GDP Growth (National)	3.3	%	**M**	**6**	Greater than 6%	Between 3% and 6%	Less than or equal to 3%
Fiscal Deficit (% of GDP) (National)	6.6	%	**M**	**6**	Less than or equal to 4%	Between 4% and 8%	Greater than 8%
Inflation Rate (National)	9.11	%	**L**	**3**	Less than or equal to 2%	Between 2% and 5%	Greater than 5%
AVERAGE SCORE			**M**	**5**			
STREAMLINED PROCEDURES					**SCORING RANGE**		
Ease of Doing Business Index (National)	55.31	Index	**M**	**6**	Greater than 100	Between 50 and 100	Less than or equal to 50

%age of ISO certified industries (Province)	1	%	**L**	**3**	Greater than 50%	Between 50 and 20%	Less than or equal to 20
Annual Volume of cargo - import (FT) (Provincial)	5	Freight Tonnes (FT) (Millions)	**L**	**3**	Greater than 50 Million Tonnes	Between 30 and 50 Million Tonnes	Less than or equal to 30 Million Tonnes
Annual Volume of cargo - export (FT) (Provincial)	0.5	Freight Tonnes (FT) (Millions)	**L**	**3**	Greater than 3 Million Tonnes	Between 1 and 3 Million Tonnes	Less than or equal to 1 Million Tonnes
AVERAGE SCORE			**M**	**3.75**			
ZONE MONITORING AND REGULATION					**SCORING RANGE**		
Time period to submit the annual financial statements to auditor general office	4	Number of Months	**L**	**3**	Less than or equal to 1 month	Between 1 and 3 months	Greater than 3 months
Time period to submit the progress report on key performing indicators (KPI)	6	Number of Months	**M**	**6**	Less than or equal to 4 month	Between 4 and 6 months	Greater than 6 months
AVERAGE SCORE			**M**	**4.5**			
POLITICAL COMMITMENT					**SCORING RANGE**		
Amendment in SEZ law (Frequency) over the last 10 years (National)	1	Between 1 and 10	**L**	**3**	Greater than 6 times	Between 3 and 6 times	Less or equal to 3 times
Amendment in foreign investment law (Frequency) over the last 10 years (National)	2	Between 1 and 10	**L**	**3**	Greater than 6 times	Between 3 and 6 times	Less or equal to 3 times

AVERAGE SCORE			**L**	**3**			
PEACE AND STABILITY					**SCORING RANGE**		
Polity IV Rank (National)	7	Between -10 and 10	**H**	**9**	Greater than 5	Between 0 and 5	Less or equal to 0
Global Peace Index (National) (2018)	3.072	Between 1 and 4	**L**	**3**	Less or equal to 2	Between 2 and 3	Greater than 3
AVERAGE SCORE			**M**	**6**			
ZONE ADMINISTRATION AND MANAGEMENT					**SCORING RANGE**		
Time required to acquire power connection (days)	117	Number of Days	**L**	**3**	Less or equal to 30 days	Between30 and 60 days	Greater than 60 days
Time required to acquire gas connection (days)	120	Number of Days	**L**	**3**	Less or equal to 30 days	Between30 and 60 days	Greater than 60 days
%age of industries possessing export licenses	5	%	**L**	**3**	Greater than 50%	Between 25 and 50%	Less or equal to 25%
AVERAGE SCORE			**L**	**3**			