URBAN DEVELOPMENT SECTOR PLAN 2014-2018

GOVERNMENT OF PUNJAB

Draft dated 17 October 2014

HOUSING, URBAN DEVELOPMENT & PUBLIC HEALTH ENGINEERING DEPARTMENT

LOCAL GOVERNMENT & COMMUNITY DEVELOPMENT DEPARTMENT

TRANSPORT DEPARTMENT

LAHORE DEVELOPMENT AUTHORITY

PUNJAB HOUSING & TOWN PLANNING AUTHORITY

WATER AND SANITATION AUTHORITIES

THE URBAN UNIT

Supported by PLANNING & DEVELOPMENT DEPARTMENT

Financial assistance: INTERNATIONAL GROWTH CENTRE

TABLE OF CONTENTS

INTRODUCTION[1]

Punjab is in the midst of an urban transition due to natural increase & rural-to-urban migration along with a shift towards a manufacturing and service-based economy, associated with higher urbanization. A central principle of Punjab's Urban Growth Strategy is that "density" and "agglomeration" are central to economic development, higher productivity, social equity and human development. To make Punjab competitive for investment and development, cities are going to play a vital role, because they can benefit from a large and skilled labor force, economies of urban scale, economies of agglomeration (i.e. efficiency resulting from clustering of firms in a given industry or related industries), and the resulting demand for goods and services.

Further rural-urban migration and urbanization can only lead to higher income if manufacturing and services grow fast enough to absorb the supply of labor. Pakistan will have to invest in many cities at the same time to ensure a more geographically balanced rate of urbanization and the creation of a system of cities – an efficient network of urban centers whose manufacturing and services industry are connected. Harnessing and promoting this approach of "system of cities" will lead to faster job creation and higher growth of productivity.

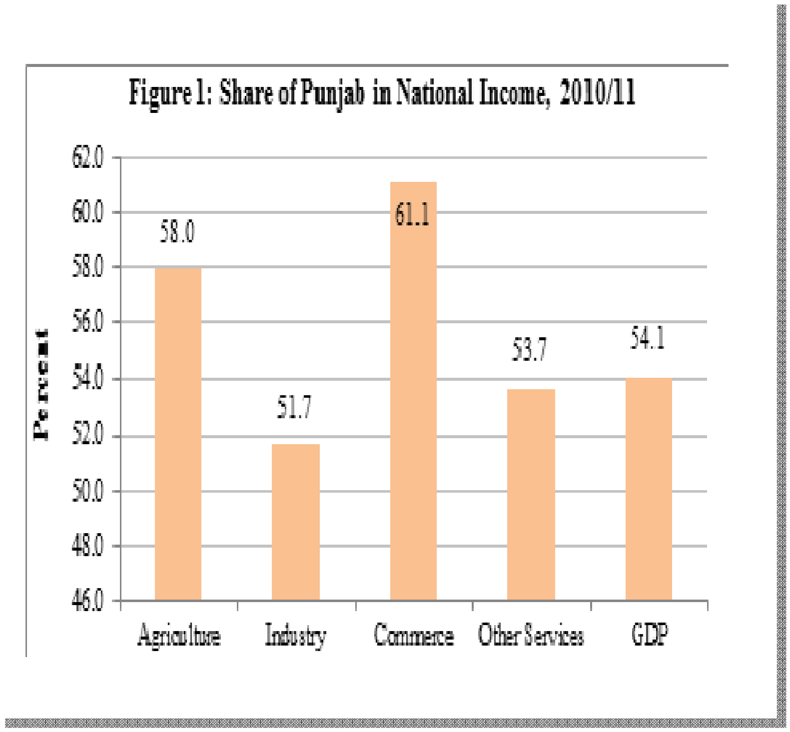
Placing urban development (with an emphasis on density and commerce) at the heart of our Growth Strategy has several advantages: dense multi-function urban areas create jobs and are free from barriers to entry and exit; and density attracts investment and helps the growth of the construction industry as well as commerce, both of which are employment friendly.

[1] The Government of Punjab acknowledges the assistance of Mr. Faisal Fareed (The Urban Unit, Government of Punjab) in developing this Sector Plan. Financial assistance was provided by the International Growth Centre.

1. Context and Background:

Confirming to the worldwide trend, the urban centers in Pakistan, as well as Punjab, have also become the drivers of economic growth[2] . It is estimated that cities contribute 78% of the country's GDP[3]. It is important to note that Punjab alone contributes half of the country's GDP as shown in the Figure1and its five large cities account for 50% of the gross value of industrial production[4].

Of Pakistan's current population of about 177 million, over 65 million (or 37%) live in cities[5] compared to 43 million (32%) in 1998.[6] Currently more than half of the urban population dwells in or near eight cities – Karachi, Lahore, Faisalabad, Rawalpindi, Multan, Hyderabad, Gujranwala and Peshawar. It is anticipated that by 2030, half of the country's population will be living in cities and that 12 cities have a population of one million.



Punjab is among the most urbanized regions of South Asia and is experiencing a consistent and long-term demographic shift of the population to urban regions and cities with around 40% of the population living in urban Punjab. The projections estimate that the urban population in Punjab will rise to about 52 million by 2025 and 59 million by 2030. While Lahore, the capital of Punjab and its largest city, is currently home to about 8 million people, its population is expected to reach 10.8 million people in 2025[7] owing to

---

2 Government of Pakistan, Planning Commission (2007). *Vision 2030.* The economic dynamics of Pakistan's cities makes them "important engines of growth" Section 10.4: Cities as Engines of Growth, p.95.

3 Government of Pakistan, Planning Commission (2011). *Task Force Report on Urban Development.* Executive Summary, p.vi.

4 Government of Punjab, Asian Development Bank, World Bank and UK Department for International Development (2005). *Pakistan: Punjab Economic Report.* Table 5.23, p. 96 based on the Punjab Census of Manufacturing Industry.

5 Government of Pakistan, Finance Division (2011). *Economic Survey of Pakistan 2010-11,* Islamabad.

6 Government of Pakistan (2001). *1998 Census Report of Pakistan,* Islamabad

7 Government of the Punjab, (2006). *Poverty Focused Investment Strategy for Punjab,* Lahore; this figure would be 12.4 million if projected on the basis of the inter-census growth rates from the last census are used.

its position as an urban magnet in the region. Punjab has four other cities with populations in excess of one million, namely Faisalabad (3 million), Gujranwala and Rawalpindi (2 million each), and Multan (1.7 million)[8]. Collectively, about half of the urban population in Punjab is concentrated in these five cities. In addition, three other large cities (Sialkot, Bahawalpur and Sargodha) are poised to cross the one million mark.

The cities in the Punjab face many challenges. They have inadequate infrastructure and urban management capacities to meet current needs, let alone an ability to respond to growing demand. While the Pakistan's Millennium Development Goals report indicates good progress in water supply and sanitation targets, in reality, the infrastructure and services are inadequate[9]. Water and sanitation service in the largest cities is unreliable and intermittent providing only 4-16 hours of water supply per day and to only about half of the urban population. Service provision is not financially sustainable due to a combination of low tariffs, low collections, and the steep increase in energy tariffs. Aquifers are over exploited: for instance in Rawalpindi, the water table has gone down from 8-20 meters in 1985-86 to 40-85 meters by 2010. Wastewater is disposed off untreated in natural channels and water-bodies. Similarly, the solid waste service collects only about half of the waste being collected; and this waste is disposed off in substandard dumps and waterways. Widespread under-performance in service delivery and infrastructure deficiencies affect living conditions and handicap business growth reducing the productive potential of cities. Poor public transport and weak traffic management render roads heavily encroached and congested, constraining urban mobility. There is massive shortage of housing facilities in the urban centers. Situation worse compounded, with the lack of strategic planning and poor enforcement and regulatory framework, a sizable population in the urban areas is living in slums.

2. Benefiting from Concepts of Density and Agglomeration

An underlying principle of the Punjab Growth Strategy's focus on urban development is that "density" and "agglomeration" are central to economic development, higher productivity, social equity and human development.

To make Punjab competitive for investment and development, cities are going to play a vital role, because they can benefit from a large and skilled labor force, economies of urban scale, economies of agglomeration (i.e. efficiency resulting from clustering of firms in a given industry or related industries), and the resulting demand for goods and services.

Further rural-urban migration and urbanization can only lead to higher income if manufacturing and services grow fast enough to absorb the supply of labor. Pakistan will have to invest in many cities at the same time to ensure a more geographically balanced rate of urbanization and the creation of a system of cities – an efficient network of urban centers whose manufacturing and

[8] Projected on the basis of the inter-census growth rates from the last (1998) population census.
[9] Ministry of Planning, Developmentand Reform, Government of Pakistan 2013, Pakistan Millennium Development Report, 2013. Islamabad.

services industry are connected. Harnessing and promoting this approach of "system of cities" will lead to faster job creation and higher growth of productivity.[10]

Dense multi-function urban areas create jobs and are free from barriers to entry and exit; and density attracts investment and helps the growth of the construction industry as well as commerce, both of which are employment friendly.[11]

3. Policy Framework:

With the shifting population trends and massive urbanization, the government has also focused on urban development in important policy frameworks and guidelines. The Planning Commission's Pakistan Vision 2025, approved by National Economic Council and Framework for Economic Growth[12] envisions Pakistan as a just and prosperous and modern nation characterized by sustainable development, competitive growth and good governance. The framework for Economic Growth envisages cities as engines of national growth, centres of economic activity, culture and knowledge.

One of the key factors hindering previous attempts to improve municipal services to urban populations was the relationship between the federal government and the provincial government on Urban Development. This was rectified with the 18th Amendment to the Constitution passed in 2010, which assigned the role for municipal services to provincial governments exclusively.

The government of Punjab puts urban sector at the forefront of its strategy to address the challenges of urban development. The Punjab Growth Strategy 2018 has been adopted by the Government to accelerate the rate of economic growth primarily through the means of inclusive growth and social development. The strategy comprises of four major sector clusters which are as follows:

1. Agriculture and Livestock
2. Industries and Skill Development
3. Preventive Health
4. Urban Development

As evident from the list of sector clusters, the strategy adopts a holistic and integrated approach to growth by catering to both rural and urban development.

The Government of the Punjab has also established an effective Urban Sector Planning and Management Services Unit Pvt. Ltd. (the Urban Unit) mandated for urban sector reform, policy, planning, legislative and regulatory improvement work, in the sector.

---

[10] World Bank (2014), "Pakistan Urban Sector Assessment: Leveraging the Growth Dividend from the Urbanization Process". A background paper for the World Bank's South Asia Urbanization Flagship Report.

[11] Planning Commission, Government of Pakistan (2011). "Pakistan: Framework for Economic Growth", Chapter 7: "Creative Cities". Available at: <http://www.pc.gov.pk/feg/>

[12] Planning Commission, Government of Pakistan, 2011, Framework for Economic Growth, Islamabad.

4. Sector Strategy, Programmes and Projects:

The Government's Mid-Term Development Framework 2014-17 incorporates the Urban Development agenda and seeks to develop modern and efficiently managed urban centers to serve as engines of growth for provincial economy. The key priority areas with in the sector include; supply of potable drinking water and its efficient use; provision of effective and efficient sewerage and drainage system; environment friendly disposal of sewage; safe and efficient roads infrastructure; provision of solid waste management services; strategic planning for growth of cities on scientific lines.

5. The Sector Plan:

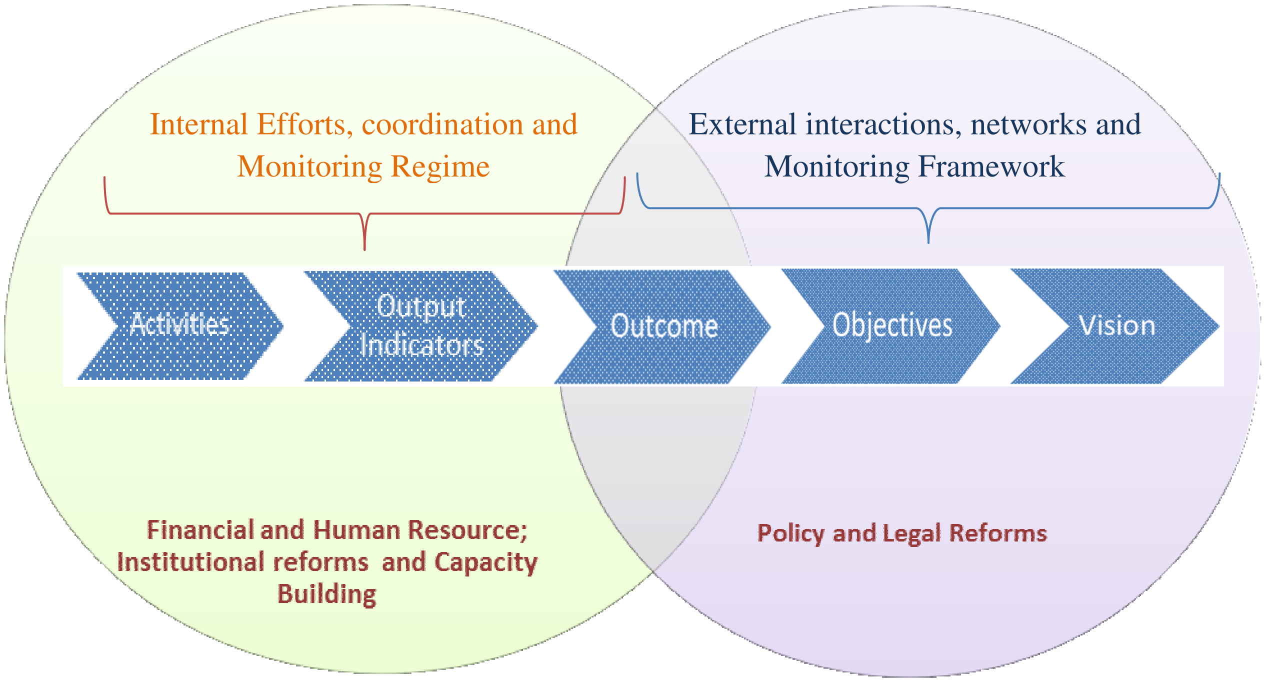
The Government of Punjab formed the Urban Development Working Group to create an Urban sector plan to determine outcomes, objectives, priorities and programs till 2018. These programs will then be reflected in the various Departments' MTDF and Annual Development Program (ADP) till 2018.

In order to achieve the objectives of the Punjab Growth Strategy 2018, the sector plan for the Urban Development has been developed by active coordination of HUD&PHE Department, LG&CD Department, Transport Department, LDA and the Urban Unit which provides a clear link between identified outcomes, outputs and inputs for the following subsectors.

- Housing and Urban Planning
- Water and Sanitation in Urban Areas
- Urban Solid Waste Management
- Public Transport

The plan defines the objectives, outcomes, output indicators and the activities for the next 4 years till 2018 for each sub sector mentioned above defining causal relationships to achieve targets and create efficiencies. The departments also identified programs, projects and interventions and the resource requirement for implementing the programs and projects. Moreover, the key policy reforms and institutional changes has also been discussed that would complement the achievement of these objectives.

The Sector Plan also provides a strategy for building and improving capacity of the government departments for implementing the Programs and projects identified above. This can figuratively be explained as under:



The figure shows that the output indicators would be achieved through internal coordination within various public sector entities, whereas to achievement of the outcome objectives, it is important to create synergies between public sector with private sector, donor agencies, other national and international organizations, communities and NGOs.

Methodology:

Component	Key Questions	Action
Review of Sector Performance / Situation Analysis	What is the existing situation for each sub-sector mentioned above?	• Literature Review mainly of those reports provided by the Departments and compiled by the Urban Unit[13]
Sectoral Development Vision and Objectives	Where do the departments want to go from the existing situation by FY 2018?	• Situation analysis • Punjab Growth Strategy • MTDF • Presentations and reports provided by the Departments
Sectoral Outcomes, Outputs and Activities	What to achieve over a period of time?	• Sector objectives • Punjab Growth Strategy • MTDF • Presentations and reports provided by the Departments • Consultations and discussions

[13] In the presence of wide range of existing literature on the analysis of the listed sectors of urban development, it was considered appropriate to use these reports

Component	Key Questions	Action
		with the Departmental officials
Resource Requirements	What financial and human resources will be required to enable us to get there?	• Provided by the Departments on the basis sectoral activities.
Policy and Legal reforms along with justifications.	What kind of policy and legal reforms required achieving those outcome and objectives?	• Indicated by the Departments on the basis of Sectoral objectives • Punjab Growth Strategy • MTDF
Institutional strengthening and capacity enhancement	What kind of institutional reforms required to enhance the capacity to achieve the objectives	• Indicated by the Departments on the basis of Sectoral objectives • Punjab Growth Strategy • MTDF
Monitoring of Outcomes	How to monitor the outcome objectives?	• MICS • PSLM • Third part surveys & reports • Departmental committees & reports
Review and Oversight committees	How to monitor the quarterly and yearly progress of activities?	• To be formed by P & D Board

6. Other major Government programmes in the Urban Sector

There are a number of other initiatives taken by the government which reflect upon the GOPb's determination and efforts to improve the existing situation of urban infrastructure and governance. Some of them have been discussed as in the following table.

Sr. No.	Name of the Project/programme	Brief Description	Location/ Scope	Time Period	Total Financial Outlay (In Millions)	Source of Funding
1.	***Punjab Cities Governance Improvement Project (PCGIP)***	The project is focused on strengthening of systems and governance improvement for enhanced service delivery. The development objectives are to support the Province of Punjab's cities in strengthening systems for improved planning, resource management, and accountability, and to improve the capacity to respond promptly and effectively to an Eligible Crisis or Emergency.	5 large cities of Punjab	5 years (2012-17)	**$154**	WB(loan) $ 150 GOPb $ 4.0
2.	***Punjab Intermediate Cities Improvement Investment Programme (PICIIP)***	The project aims to resolve the urban development challenges by ensuring integrated planning, improved institutional framework, transparent business procedures, strengthened urban infrastructure and improved service delivery in the intermediate cities of Punjab.	12 Intermediate cities of Punjab	10 years Expected to be started in next FY	**$500**	ADP (loan) $350 GOPb $150
3.	***Punjab Municipal Services Improvement***	The PMSIP-II envisions that every municipal committee shall be equally proficient in responding to municipal	Entire Punjab except five large cities	5 years July 2014-19	**Rs. 4500**	WB(loan)Rs. 4300 GOPb Rs. 200

Sr. No.	Name of the Project/programme	Brief Description	Location/ Scope	Time Period	Total Financial Outlay (In Millions)	Source of Funding
	Programme - II (PMSIP II)	services needs of its citizens. The objective is to enhance the efficiency, performance, and effectiveness of urban local governments such as TMAs, leading to improved governance, better public service, improved municipal service delivery leading to quick response to public complaints & demands and ultimately the citizen satisfaction.				
4.	***Automation of Urban Immovable Property Tax (UIPT)***	The Urban Unit in collaboration with the Excise and Taxation Department embarked upon the Sialkot Pilot Project for computerization of Urban Immovable Property Tax (UIPT). The Unit developed a computerized property tax system to improve and modernize the system and bring greater transparency to the process. The system consists of user friendly software and web based applications to cover all property tax operations, from the issuance of challan forms to the final submission of the property tax.	Sialkot and five large cities of Punjab	1 year (2013-14)	**Rs. 623**	GOPb 623
5.	***Punjab Urban Resilience Agenda***	It is a joint agenda of various entities namely the World Bank, the GFDRR, LEAD Pakistan and other national agencies towards resilient cities. Moreover, the Urban Unit, under PCGIP, shall prepare a	Urban Pakistan	On going	**$0.5**	World Bank and GFDRR

Sr. No.	Name of the Project/programme	Brief Description	Location/ Scope	Time Period	Total Financial Outlay (In Millions)	Source of Funding
		Contingent Emergency Response Plan. In this regard, the Urban Unit shall work closely with national, provincial and local entities to assess selected urban areas and conduct GIS based risk mapping				
6.	***Ravi Riverfront Development***	Being one of the biggest area development projects for expansion of Lahore, the project involves developing a Master Plan for the riverfront with details such as areas for residential, commercial, industrial, educational, recreational and mixed use development. It also includes designing infrastructure development aspects such as cleansing Ravi River with wastewater/sewage treatment plants, developing an area to contain any possible flood and channelizing the river.	Lahore	12 years	**Rs. 900**	Bonds and Equity (Govt of Punjab)
7.	***Ashyana Housing Scheme (low cost housing)***	It was launched by the GoPb through Punjab Land Development Company. The objective of the project is to increase the provision of housing to middle and low income groups.	Entire Punjab	On going	**Rs. 1000**	GoPb – 60%and Bahria Town– 40%
8.	***Energy Efficient Cities-Rainwater Harvesting***	The Urban Unit in collaboration with WASA Lahore conducted a pilot project in Lahore to develop a groundwater recharge structure for rainwater harvesting. The project aimed to purify the surface and	Various Pond sites in Lahore (GOR)	3 months	**Rs. 0.6**	GoPb (Urban Unit)

Sr. No.	Name of the Project/programme	Brief Description	Location/ Scope	Time Period	Total Financial Outlay (In Millions)	Source of Funding
		improve water management. Through rainwater harvesting techniques, rainfall runoff may be utilized and rainwater consumption may be reduced.				
9.	***Draft WASH Master Plan 2014***	With the technical support from UNICEF, the Urban Unit, HUD&PHED and relevant other entities are in the process of developing a comprehensive WASH Master Plan focusing on the water, sanitation and hygiene condition as well as service delivery in both rural areas and in peri-urban areas. The plan will provide a road map for prioritizing strategic actions, conduct investment profiling and design a comprehensive monitoring and evaluation framework.	Punjab	2 years – in progress		GoPb and UNICEF
10.	***Overcoming energy crisis through harvesting solar energy***	In this regard, the government has allocated 7500 acres of land near Bahawalpur for the establishment of a 1000 MW Solar Park. This project is being implemented by with the technical support provided by the Quaid-e-Azam Solar Power Company Pvt Ltd.	Lal Sohanra and Din Garh in Bahawalpur district of southern Punjab	Phased;2014-till date 1 year	**Rs. 216 million**	75% Debt (Bank of Punjab) and 25% Equity (GoPb)
11.	***Punjab Saaf Pani Company***	The Punjab Saaf Pani Company is a public owned entity that has taken upon the "Clean Water for All" initiative in which the company shall prioritize areas (rural	Rural and Peri-urban areas	Phased; 2014	**For the first phase – Rs.**	GoPb

Sr. No.	Name of the Project/programme	Brief Description	Location/ Scope	Time Period	Total Financial Outlay (In Millions)	Source of Funding
		and peri-urban) and then undertake interventions to ensure clean drinking water for everyone.			**15m**	
12.	***JICA Grant Aid***	The JICA Grant Aid aims to improve the sewage system through updating the machinery used at WASAs. ***Punjab Water and Sanitation Academy*** has been established by the Government of Punjab in collaboration with JICA that has been formed to build the capacity of the PHED's and the LG's staff in the respective TMAs. In this regard, an integrated training arrangement, on regular basis shall be provided. In order to motivate the staff, training shall be linked to promotion.	Commenced in WASA Faisalabad; shall be expanded to WASA Lahore and Gujranwala	Phased 2009 to date	**Rs. 273 (Gujranwala Sewerage System)**	JICA
13.	***Changa Paani Programme***	The programme integrates water supply schemes and sewage services and involves a strong component sharing model.	Faisalabad and Bhawalnagar	Phased 2013 to date	**Rs. 44**	Government – 69% Community – 31%
14.	***Pakistan Sustainable Transport (PAKSTRAN) Project***	The Urban Unit, UNDP, GEF, Government of Punjab, Government of Sindh and the Ministry of Industry and Production have collaborated to undertake the IUCN PAKSTRAN project. This project aims to create an environment conducive to investment in sustainable transport,	Punjab, Sindh and Islamabad	5 years	**Rs. 7800**	UNDP and GEF

Sr. No.	Name of the Project/programme	Brief Description	Location/ Scope	Time Period	Total Financial Outlay (In Millions)	Source of Funding
		formulate an institutional and policy framework to govern urban transit development, enhance fuel efficiency, and impart awareness pertaining to sustainable transit.				
15.	***Establishment of Waste Management Companies***	Seven waste management companies have been established over the recent years in seven cities of Punjab. These companies are committed to making their respective cities cleaner places to live in by motivating citizens to reduce waste, increasing awareness about waste management, creating safe disposal sites and collaborating with international agencies for knowledge sharing.	Lahore, Faisalabad, Multan, Gujranwala, Rawalpindi, Bahawalpur and Sialkot.	On going	As per requirement	GoPb and User Fees and such other charges

Urban Planning and Housing

Punjab's rapid urbanization and unplanned growth, as well as the historic nature of our governance structures, has led to numerous problems which adversely affect the life of its citizens. These range from: persistent and rising urban sprawl; chronic shortage of housing; poor quality of basic services such as water, sanitation and public transport; and inefficient urban land markets. Without resolving these problems, Punjab will not be able to harness the benefits of urbanizations. These problems are discussed below. Understanding their severity informs us that an urban strategy is necessary to turn the tide around.

There exists a range of impediments to efficient urban land and housing market performance including excessive public land ownership, inadequate infrastructure services, weak property rights, counterproductive urban planning policies and regulations, costly subdivision and construction regulations, limited financing for property development and acquisition, rent controls, and distortive taxation mechanisms. To foster sustainable economic growth and reduce poverty, the Punjab's main urban centers need to accommodate additional urban growth which requires sound planning, well-functioning urban land and housing markets, and capacity of the local institutions to enforce laws and regulate the sector.

1. Situation Analysis:

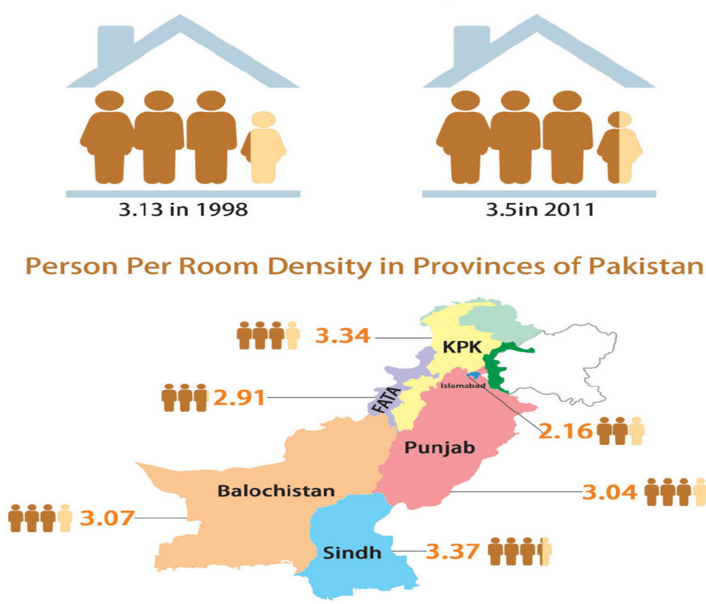
As discussed above, the Punjab Province in Pakistan is in the midst of a profound urban transition, driven by structural economic change. It is transforming from an agriculturally-based economy to a manufacturing and service based economy, which is leading to massive urbanization. This transformation is just getting started and will continue over the next decade. According to the World Bank's Development Data Platform (DDP) database (2006), urban-based manufacturing and service sectors composed 77 percent of the Pakistan's GDP in 2003 and experienced more than 90 percent of GDP growth during 1999 – 2003. As the Province economy continues to expand and modernize, it is estimated that the process of urbanization shall continue at a strong pace over the coming years.[14]

To foster sustainable economic growth and reduce poverty, the Punjab's main urban centers need to accommodate additional urban growth which requires sound planning, well-functioning urban land and housing markets, and capacity of the local institutions to enforce laws and regulate the sector.

However, there exists a range of impediments to efficient urban land and housing market performance. These include excessive public land ownership, inadequate infrastructure services, weak property rights, counterproductive urban planning policies and regulations, costly subdivision and construction regulations, limited financing for property development and acquisition, rent controls, and distortive taxation mechanisms (WB 2006)[15].

The following figure depicts the trend of room density in Pakistan which is much higher than other developing countries.

Figure: Room Density in Pakistan



Source: State Bank of Pakistan Review 2005-2011

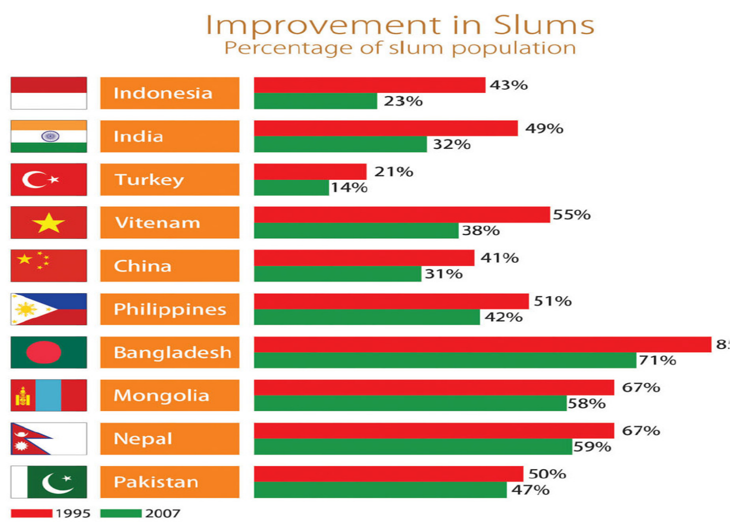
[14] The urban population of Pakistan is increasing at the rate of 4.8% a year (Tirmizi, 2006).

[15] Urban Land and Housing Markets in the Punjab, Pakistan. World Bank 2006.

Chronic shortage of Housing: The Government estimates that the cumulative housing shortage (rural and urban) in the province is 2.5 million units and annual investment in housing is about Rs.150-160 billion. It is expected that the housing demand in Punjab's urban areas will reach 7.4 million units by 2035, while both public and private sector will be able to provide only 5.2 million units. This means that 2.2 million housing unit shortage alone in towns. The demand for urban housing in the five largest cities of Punjab alone will be 5.8 million units by 2035, which accounts for 78% of the total.

In urban Pakistan, for 2009 alone, projected effective demand amounts to 470,000 housing units, at a total construction cost of $5.6 billion, or a requirement of $2.0 billion (1.26 percent of Pakistan's GDP) in financing[16].

In Pakistan 27.5 million people live in slums which is quite high and proper housing facilities are required to address this issue. Similarly, Pakistan showed minimum improvement in slums as compared to other Asian county which is a clear indication that people of Pakistan are in great need of housing facilities and proper housing unit[17].



Source: UN-Habitat Database, 2010

These statistics depict the need of greater housing supply in Pakistan which may be achieved through effective policy interventions.

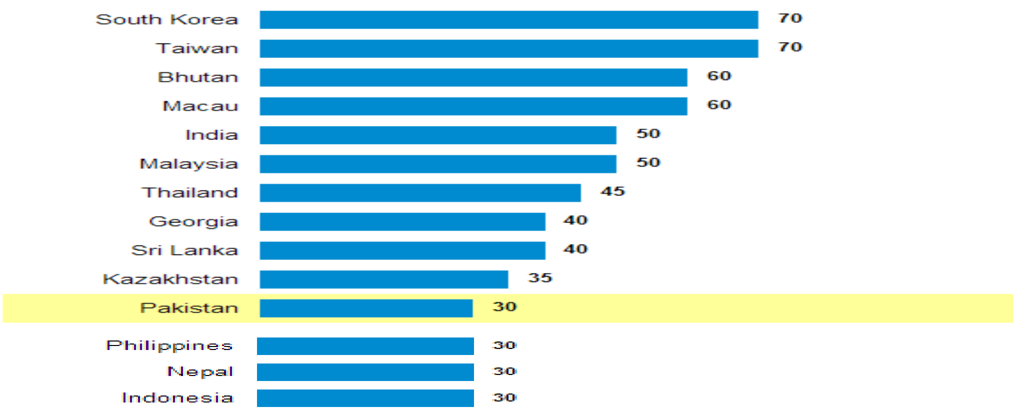
During the last three decades a large number of housing schemes[18] have been developed in Punjab by public, private and cooperative sectors. It is expected that the number of these residential schemes will exceed in the coming years due to urbanization. The current scenario of housing schemes is portraying an alarming situation because many of the schemes are not properly utilized and remain vacant. The land speculation is also severely affecting the colonization of housing schemes and also causing the overwhelming problem of deterioration of infrastructure.

No unified system of land titling and land transfers in urban areas: The existing Land administration system under the Board of Revenue was designed for agricultural lands, which is

[16] Census reports and Affordable Housing reports, McKinsey & Company 2012
[17] UN-Habitat urban indicators 2007
[18] The total number of housing schemes in Punjab has not been calculated yet. We can have round figures for cities like Lahore, Rawalpindi, Multan etc. It is because of the fact that number of institutions cater for the housing development. One has the data of only those schemes which are provided by the respective institution.

also in vague for urban areas. In addition to this, many Authorities, Societies and other agencies have their own systems of maintaining land records and titles – and in the case of some old city areas there exists no record at all. This has led to a situation where a major portion of urban properties remain outside the ambit of the formal economy. The situation is further compounded due to unclear legal titles system resulting in low investment in commercial and residential construction and so the housing mortgage system (WB 2008).

Figure: Property Rights Index



.

Source: http://www.globalpropertyguide.com/Asia/Pakistan/property-rights-index *Note: Scores are from 0 to 100.Higher scores are more desirable, i.e. property rights are better protected*

Ineffective urban land-use planning and development controls are impeding urban development. The existing building regulations and land use planning (zoning) encourage urban sprawl and low density in our cities, resulting in expensive housing, infrastructure and services and a high cost of doing business. There is an urgent need to redesign building regulations and land use across urban areas to facilitate higher density, promote mixed-use development and enhance the ratio of investments in relation to the cost of land (WB 2006).

The existing legal provisions for housing sector are sketchy and are promulgated for establishment of housing organization only, without a clear vision, objective and target for housing provision.

The existing organizational arrangement for Housing and urban planning has been explained as follows:

Table 5: Institutional Setup for Housing

Organization	Level	Responsibilities

Organization	Level	Responsibilities
Housing, Urban Development & Public Health Engineering Department (HUD &PHED)	Provincial	Provision of housing facilities to the population, up gradation and development of big cities
Punjab Housing and Town Planning Agency (PHATA) established under the PHATA Ordinance, 2002	Provincial	○ Develop and regulate Low Income Housing ○ Area Development Schemes. ○ Three Marla Housing Schemes. ○ Regulate private housing schemes ○ Physical / Spatial Planning ○ Regional Development Plans. ○ Master Plans. ○ Outline Development Plans. ○ Small Town Development Plans. ○ Provincial Land-use Plan. ○ District/Tehsil/Union Council Plans. ○ Provide technical assistance to the TMAs and District Governments in the housing and spatial planning
Kachi Abadies Directorate subsidiary of Board of Revenue	Provincial	Regularization, rehabilitation and up gradation of Katchi Abadies under the provision Punjab Katchi Abadis Act 1992 (Amendment Ordinance XVIII of 2007)
'Punjab Land Development Company (PLDC) creaed in 2010	Provincial	Affordable housing, urban renewal, municipal services, land management, land development, and the development of Economic Zones (Industrial Cities)
Tehsil Municipal Administrations (TMAs). Under PLGO 2001	Local	provision of housing to low-income population, and control on the growth of areas/settlements on scientific lines
Development Authorities (DAs) are subsidiaries of PHUD&PHED created under LDA Act 1975 and the Punjab Development of Cities Act 1976	Local	Spatial planning of a city, building control and planning, development-housing scheme and provision of serviced plots in various housing schemes

Source: *Low Income Housing in a Crunch of Institutional Mismatch, Syeda Shabnum Najaf Humphrey Fellow 2010-11*

7. Vision:

In the light of situation analysis, the government has set the following vision and the objectives for urban housing and urban planning sub sector to improve the situation over a period of four years.

"Provide affordable & quality housing solutions for the growing population of the Province; foster more effective urban planning that has economic value; and establishment of an enabling environment for making the cities engines of economic growth".

8. Sector Objectives:

- Provision of affordable housing for the growing population.
- Define city limits and streamline functional and operational alignments of District Governments, DAs, WASAs and TEPA etc through GIS technology.
- Master and strategic Planning for all Urban Centres to guide all future investments.
- Strategic Regional Planning for growth of city regions.
- Promotion of vertical growth of cities instead of horizontal growth for efficiency gains.
- Computerization of urban land titles and records.
- Better legal, institutional and institutional frameworks for empowered, responsive, efficient and accountable government entities.
- Provision of adequate and efficient urban services in cities, to provide enabling environment for making them Engines of Economic Growth.

9. Sector Outcomes and Outputs for PHATA (HUD&PHED) and TMAs (LG&CDDD):

Outputs	**Projects/Indicators/Activities**	**Responsible Agency**	**Targets**	**Medium Term Targets**		
			2014-15	2015-16	2016-17	2017-18
Outcome 1:	**Combat Housing Shortage for Low Income Groups with quality infrastructure**					
1.1 Provided serviced plots by 3 Marla (pro poor) schemes for affordable housing to the low income segment of the society	1.1.1 Numbers of 3 Marlas (pro poor) Schemes	PHATA	2	2	4	4
	1.1.2 Land acquired for 3 Marla Housing Schemes in acres	PHATA	100	50	50	50
	1.1.3 Number of Schemes developed	PHATA	3	2	4	4
	1.1.4 Number of plots developed	PHATA	6000	3000	6000	6000
	1.1.5 Number of persons benefitted from the 3-Marla schemes	PHATA	36000	18000	36000	36000
1.2 Provided Affordable Housing and Area Development Schemes Solutions for low and middle income groups	1.2.1 Number of Area Development Schemes developed	PHATA	11	10	10	10
	1.2.2 Number of plots created through area development schemes	PHATA	16308	8400	ongoing	6000
	1.2.3 Number of persons benefited from area development schemes	PHATA	97848	50400	ongoing	36000
	1.2.4 Number of plots reserved for low cost housing in new housing schemes(DAs)	HUD&PHED	1618	10824	10824	10124
	1.2.5 Number of small and medium cities where Percentage of plots reserved for low cost housing in private schemes registered with TMAs	LG&CDD		30	35	40
	1.2.6 Number of population benefited from construction of affordable flats	HUD&PHED	9708	64944	64944	60744
1.3 Katchi Abadis Upgraded,	1.3.1 Number of Katchi Abadis regularised	DGKA	44	50	50	50

Regularized and restricted	1.3.2 Percentage of beneficiaries of regularized Kachi Abadis as against the total target population	DGKA	12.54	15.5	13.7	16.25
	1.3.3 Number of Katchi Abadis up-graded	DGKA	0	110	116	100
	1.3.4 Percentage of beneficiaries of up-graded Kachi Abadis as against the target population living in Kachi Abadis	DGKA	0	5.3	5.6	4.8
Outcome 2	**Foster efficient urban & regional planning and infrastructure development for economic growth**					
2.1 Urban & Regional Plans Prepared	2.1.1 Number of Integrated Strategic/Action Development Plans prepared against the total number of city districts and TMAs	LG&CD D		30	35	40
	2.1.2 Number of Outline Development Plans prepared of urban Centers having population more than 300,000 as against the total.	PHATA	4	4	4	4
2.2 Infrastructure developed and improved for better living in Urban areas	2.3.1 Number of schemes planned for Infrastructure improvement by TMAs	LG&CD D	8			
	2.3.2 Number of schemes planned for Infrastructure improvement by DAs & PHAs except LDA	HUD&P HED	11			
Outcome 3	**Improve institutional framework for public lands, construction and building regulatory system**					
3.1 Public ownership of land reduced	3.1.1 Number of cities where properties would be surveyed (GIS based) owned by the government	LG&CD D	75 (Phase I)	70 (Phase II)	50 (Phase II)	45 (Phase II)
	3.1.2 Percentage of properties entered in computerized database	LG&CD D	100% (Phase I)	100% (Phase II)	100% (Phase II)	100% (Phase II)
	3.1.3 Number of cities where public land as against the total cities	LG&CD D	75 (Phase I)	70 (Phase II)	50	45
	3.1.4 Number of cities where amount is collected from public land re-use	LG&CD D		20	30	30

Outcome 4	**Improved governance and internal monitoring systems**					
4.1 GIS based survey conducted to identify revenue potential and update the tax base (such as illegal land use, rents, commercialization potential, and for other related taxes, penalties, fee and fines).	4.1.1 Number of small and medium cities where revenue will be increased through survey	LG&CD D		30	35	40
	4.1.2 Number of large cities where revenue will be increased through survey	DGs/Urban Unit	5	contd	contd	
4.2 Billing and collection system improved	4.2.1 Number of small and medium cities where clients entered into database	LG&CD D		30	30	35
	4.2.2 Number of small and medium cities where clients got computerised billing and have access to web based application	LG&CD D		30	30	35
	4.2.3 Number of small and medium cities where amount collected against the bills generated improved	LG&CD D		30	30	35
	4.2.4 Number of small and medium cities where arrears reduced	LG&CD D		30	30	35
	4.2.5 Number of large cities where billing and collection system improved	DGs/Urban Unit	5	contd	contd	

10. Programs, projects, expenditures to achieve Outcomes

The following table shows the list of the major projects, programmes to be carried out by various agencies to achieve the stated outcomes. It also includes the investments that have to be made by the Development Authorities (DAs) except the LDA. The objective is to reflect the ADP 2014-15 in its entirely, otherwise, this sector plan do not cover the sector priorities of all the Development Authorities.

Names of Schemes/Projects/Programmes	Responsible Agency	Funding Source	Estimate 2014-15	Projection for 2016	Projection for 2017	Projection for 2018

Names of Schemes/Projects/Programmes		Responsible Agency	Funding Source	Estimate 2014-15	Projection for 2016	Projection for 2017	Projection for 2018
Outcome 1:	**Combat Housing Shortage for Low Income Groups with quality infrastructure**						
Infrastructure development for Area Development and low income housing schemes (ongoing)		PHATA	GOPb	210.456	70		
Infrastructure development for Area Development and low income housing schemes (new)		PHATA	GOPb	160	870	950	1000
Land Acquisition and Partial Development		PHATA	GOPb	90	3510	1990	1300
Aashiyana Housing Scheme		HUD&PHED	GOPb	1000	-	-	-
Estimated expenditure on up gradtion		DGKA	GOPb	0	1255 m	1580 m	1400 m
Outcome 2	**Foster efficient urban & regional planning and infrastructure development for economic growth**						
Outline Development Plans		HUD&PHED	GOPb	9.745	10	10	10
Development of Strategic / Action development Plan		LG&CDD	GOPb		60	70	80
Comprehensive study / database for area development schemes implemented		LG&CDD	GOPb		15	18	20
Establishment of Children Park at Pipnakka Gujranwala		LG&CDD	GOPb	25.972			
City Park Gujrat		LG&CDD	GOPb	40	80		
Providing and laying tuff tiles from Bijli Ghar to district complex Narowal		LG&CDD	GOPb	37.028			
Sustainable development of Walled City lahore		LG&CDD	GOPb	200	100		
Establishment of Sangla Hill Park		LG&CDD	GOPb	30	35		
Construction of Central Park in layyah		LG&CDD	GOPb	30	12.992		
New Development Schemes of BDA		LG&CDD	GOPb	50			
Improvement of condition of public graveyards in Punjab		LG&CDD	GOPb	1000			

Names of Schemes/Projects/Programmes		Responsible Agency	Funding Source	Estimate 2014-15	Projection for 2016	Projection for 2017	Projection for 2018
Allocation for Green Development Fund		HUD&PHED	GOPb	500			
Widening and Improvement of Double Road from Murree Road to IJP Road Rawalpindi		RDA	GOPb	142.992			
Construction of Road from Samanabad Chungi to GT Road Gujranwala		GDA	GOPb	135.148			
Construction of Canal Express Way from Gatwala Bridge to Sahianwala Interchange Faisalabad		FDA	GOPb/CDG	1000	1000	1000	1825
Improvement of Jhal Khanuana Chowk, Faisalabad		FDA	GOPb/CDG	100	500	448.628	
Faisalabad Link Roads Development Programme		FDA	GOPb/CDG	50	350		
Pedestrian Bridge at Airport road Rawalpindi		RDA	GOPb	23.293			
Rehabilitation of Airport Road from Ammar Chowk to Karal Chowk Rawalpindi		RDA	GOPb	100	350		
Dualization of Adayala road Rawalpindi		RDA	GOPb	100	225		
Rehabilitation /Improvement of High court Road Rawalpindi		RDA	GOPb	100	225		
Rehabilitation & Improvement of Road Junction, Gujranwala		GDA	GOPb	80			
Construction of Road along Gujranwala Main Drain		GDA	GOPb	200			
Outcome 3	**Improve institutional framework for public lands, construction and building regulatory system**						
Assets Management of Municipal Properties		LG&CDD	GOPb	50	50		
Outcome 4	**Improved governance and internal monitoring systems**						
Survey of Professional & Trade Licenses in TMAs		LG&CDD	GOPb		21	25	28
Urban Land Record System		HUD&PHED/Urban	GOPb		1000		

Names of Schemes/Projects/Programmes	Responsible Agency	Funding Source	Estimate 2014-15	Projection for 2016	Projection for 2017	Projection for 2018
	Unit/BOR					
GIS based survey conducted to identify revenue potential and update the tax base (such as illegal land use, rents, commercialization potential, and for other related taxes, penalties, fee and fines) for TMAs of medium and intermediate cities.	LG&CDD	GOPb/ World Bank/ADP	Under PMSIP II and PICIIP Project			
Billing and collection system improved for medium and intermediate cities	LG&CDD	GOPb/ World Bank/ADP	Under PMSIP II and PICIIP Project			
GIS based survey conducted to identify revenue potential and update the tax base (such as illegal land use, rents, commercialization potential, and for other related taxes, penalties, fee and fines) for five large cities.	DGs/Urban Unit	GOPb/ World Bank	Under PCGIP Project			
Billing and collection system improved for five large cities.	DGs/Urban Unit	GOPb/ World Bank	Under PCGIP Project			

11. Sector Outcomes and Outputs for LDA:

As discussed earlier, the sector plan does only cover the outcome and output objectives of the Lahore Development Authority out of the total five Development Authorities mandated to plan and implement the development agenda of the five big cities respectively. This would serve as an example for the other DAs who may follow the suit .

Outputs		Indicators	Targets	Medium Term Targets		
			2014-15	2015-16	2016-17	2017-18
Outcome 1:	**Managing Urbanization Effectively**					
1.1 Proactive urban planning		1.1.1 Integrated Strategic Regional Development Plan for Lahore Division	33%	33%	34%	-

	1.1.2 Strategic development plans for industrial and business growth	2	0	0	0
	1.1.3 Number of urban centres in Lahore Division for which 20-year plans developed for (Lahore city considered as one urban centre)-land use; transport infrastructure; public transport; water supply sewerage and reclassification and zoning drainage	2	2	2	2
1.2 Provision of improved urban infrastructure					
	1.2.1 Aggregate implementation of 20-year development plans across all urban centres of Lahore Division (@5% of plan each year for each centre that plan has been developed for)land use; transport infrastructure; public transport; water supply; sewerage and drainage; reclassification and zoning	0.4%	1.3%	2.5%	4.2%
1.3 Provision of efficient transport infrastructure	1.3.1 Annual traffic catered to with new transport links	15m	15m	15m	15m
	1.3.2 Number of vehicle minutes saved annually with new transport links	100m	100m	100m	100m
	1.3.3 Length of new roads laid (km)	20km	20km	20km	20km
	1.3.4 Length of road repaired and maintained (km)	30km	30km	30km	30km
1.4 Regularisation of private housing schemes	1.4.1 Number of housing schemes approved	2	2	2	2
	1.4.2 Percentage decrease in illegal housing schemes	3%	3%	3%	3%
Outcome 2	**Improvement of Living Standards**				
2.1 Creation of social facilities	2.1.1 Number of educational sites effectively utilized in housing schemes	5	5	10	10
	2.1.2 Number of annual users of new health and sports facilities	0.5m	1m	1.5m	2m
	2.1.3 Number of annual visitors of new theme parks and recreational centres	0.2m	0.2m	1m	1m
2.2 Redevelopment and urban renewal	2.2.1 Number of alternate housing units provided to the families residing in *katchi abadis*	-	200	300	500
	2.2.2 Area of *katchi abadis* redeveloped into commercial areas	-	20 acres	25 acres	30 acres

Outcome 3	**Equitable Provision of Housing**					
3.1 Reduction of housing stock deficit		3.1.1 Number of plots developed	-	15,000	30,000	40,000
		3.1.2 Number of beneficiaries assisted in getting house financing	-	100	200	300
		3.1.3 Number of plot ownership deeds computerized	20,000	10,000	10,000	5,000
3.2 Provision of low cost and affordable housing		3.2.1 Number of affordable housing constructed for low income groups	-	10,000	10,000	10,000
		3.2.2 Number of plots reserved for low cost housing in new private housing schemes	1000	1000	1000	1000
Outcome 4	**Capitalizing the City Potential through Revenue Generation, Investment and Economic Growth**					
4.1 Revenue generation from fees and fines		4.1.1 Amount of revenues generated from existing sources and fees	5b	5.5b	6b	6.5b
		4.1.2 Amount of revenues from new fees and taxes	1b	1.5b	2b	2.5b
		4.1.3 Number of properties granted permanent commercialization license	2,000	1,000	500	500
		4.1.4 Number of properties granted temporary commercialization license	5,000	15,000	25,000	30,000
4.2 Mobilization of private investment		4.2.1 Amount of private investment attracted via joint venture and public- private partnership projects	10b	20b	20b	30b
		4.2.2 Amount of development expenditure	15b	20b	25b	30b
4.3 Generating economic growth		4.3.1 Number of heritage sites developed for tourism growth	1	1	2	2
		4.3.2 Area developed for commercial corridors	66 acres	-	1,000 acres	1,000 acres
		4.3.3 Area developed for industrial estates	-	-	-	-
		4.3.4 Area developed for central business districts	50 acres	-	1,200 acres	-

12. Programs, projects, expenditures and policy reforms to achieve Outcomes LDA

Name of Projects	Provision for 2014-20145	Projection for 2016	Projection for 2017	Projection for 2018
Outcome 1	**Managing urbanization efficiently**			
Proactive urban planning				
i. Integrated Strategic Development Plan	0.2 b			
ii. Water and Sanitation Master plans for Sheikhupura, Kasur and Nankana Sahib				
iii. Quaid-e-Azam Apparel Park Master Plan				
iv. Ravi Riverfront Urban Development	.15 b	100 b	100 b	100 b
Provision of efficient transport infrastructure				
i. Elevated Expressway from Gulberg to Ring Road	5.7 b			
ii. Maintenance of Canal Road	1.4 b			
iii. Remodeling of Wahdat Road	1.0 b			
iv. Remodeling of GT Road from Co-op Store to Do Moria Pul	0.5 b			
v. Remodeling of Inner Circular Road	0.7 b			
vi. Alternate Route to Raiwind Road	3.0 b			
vii. Construction of Structure Plan Road from Raiwind Road to Defence Road	3.0 b	3.0 b		
viii. Flyover from Ferozepur Road to DHA over Ghazi Road	3.2 b	0.8 b		
ix. Extension of College Road from Ghazi Chowk to Defence Road	1.2 b	0.3 b		
x. Construction of Structure Plan Road from Kayban e Junnah to Defence Road to Ring Road (Butcher Khan Distributory) to Railway Line, Parallel to Raiwind Road	2.4 b	0.6 b		

Name of Projects	Provision for 2014-20145	Projection for 2016	Projection for 2017	Projection for 2018
xi. Constrcution of Structure Plan Road from Madar-e-Millat Road to Defence Road	1.6 b	0.4 b		
xii Flyover at Canal/New Campus Crossing	1.2 b	0.3 b		
xiii. Flyover at Ek Moria to Railway Station				
Total Provisions	**25.2 b**	**105.4 b**	**100 b**	**100 b**
With 15% Escalation	**-**	**134.4 b**	**221.2 b**	**215 b**
Outcome 2:	Improvement of Living Standards			
Creation of Social Facilities				
i. Shahi Bagh Project	22.4 b	5.6 b	-	-
ii. Amusement Park at FTC, Johar Town	3. b	0.9 b	-	-
Total Provisions	26.8 b	6.5 b		
With 15% Escalation	-	37.3 b		
Outcome 3:	Equitable Provision of Housing			
3.1 Reduction of Housing Stock Deficit				
i. LDA City	-	-	-	-
Total Provisions	-	-	-	-
Outcome 4:	Capitalizing the City Potential through Revenue Generation, Investment & Economic Growth			
Revenue Generation from fees and fines 1	35.8 b	8.3 b	-	-
Mobilization of Private Investment				
i. Luxury Apartments at FTC, Johar Town	7.7 b	1.9 b	-	-
ii. Mixed Use Tower at Jail Road	4.5 b	1.1 b	-	-
iii. GT Road Expressway (PPP)	4.6 b	1.1 b	-	-
iv. Sharaqpur Link (PPP)	4.3 b	1.0 b	-	-
v. Southern Bypass (PPP)	5.1 b	1.2 b	-	-

vi. LED Streetlights (PPP)	1.28 b	0.3 b	-	-
Generating Economics Growth				
i. Restoration of Jahangir Tomb & Baradri	1.2 b	0.3 b	-	-
ii. Restoration of Hiran Minar, Shiekhupura	-	-	-	-
Total Provisions	64.6 b	15.5 b		
With 15% Escalation	-	89.8 b		

Total Provision of Projects as per Objectives - Lahore Development Authority

Programs, Projects, Expenditures and Policy Reforms to Achieve Objectives					
Sr No.	**Outcomes**	**Provision for 2014-15**	**Projections for 2016**	**Projections for 2017**	**Projections for 2018**
1	**Managing Urbanization Effectively**	25.2 b	134.4 b	221.2 b	215 b
2	**Improvement of Living Standards**	26.8 b	37.3 b	-	-
3	**Equitable Provision of Housing**	-	-	-	-
4	**Capitalization of City Potential**	64.6 b	89.8 b		

Assumptions:

Provisions are set on the basis of following criterion:

Greater than 1 Year	80%	20%

13. Policy and Legal reforms along with justifications

Sr No.	Policy Reform	Justification	Responsibility	Timeline
1	Draft Punjab Regional & Urban Planning Act	Revise and adopt the Punjab Regional and Urban Planning Act to mandate n integrated economic, urban, and infrastructure development approach to regional planning, regular updating of the plans through stakeholder consultation and integrated land use and transportation planning in the value chain for priority sectors	Urban Unit Law HUD&PHED LG&CD Depts.	December 2015
2	Draft Punjab Urban Land Records Act	At the moment there is no legal framework to confer conclusive title to the owners as well as maintain a comprehensive data base to ensure strengthening of property rights and improve efficiency of land titling and registration. Vacuum should be filled immediately. The draft has been prepared by the Urban Unit.	BOR HUD&PHED, DAs And Urban Unit	December 2014
3	Draft Punjab Building Control Act	In order to ensure the enforcement of building regulations, it is important to provide legal framework for it.	LG&CDDD Urban Unit	May 2014
4	Draft Punjab Multiple ownership Premises Act	To allow for common ownership of property. The current draft of the Act should be broadened from residential land use to all land uses, including industrial land, so that the unit holders of industrial estates can take over the management (through Boards of Management) of common property within the site.	HUD & PHED Urban Unit	December 2015
5	Revise the Punjab Land Use Rules and building and zoning regulations	Urban master plans and zoning regulations need to be revised to better align urban land supply with market demands. Plans should be developed based on more careful and rigorous analysis of future development trends. Assessed through market studies rather than perceived "need" based on demographic trends. This would allow planners to explicitly consider economic as well as social, environmental and physical implications of alternative master plans and zoning.	LG&CDD DAs	December 2015
6	Incentive for large scale low cost housing facilities	There is need to incentivize the large scale housing facilities in big cities against the creation of plots	HUD & PHED LG & CDD	December 2015
7	Provision of Multi-Story Flats on Public Lands (PPP basis)	Given the space constraints and distorted housing market, it is important to utilize public land in urban centers for Multi- story quality flats.	TMAs DAs in their area of jurisdiction	2014-18
8	Legal framework for housing facilities in	The large industries should develop labour colonies near the industrial estates. The	Labour Department	FY 2015-16

Sr No.	Policy Reform	Justification	Responsibility	Timeline
	large factories	government should enact laws requiring large industries (employing 200 or more workers) to build housing for at least 50 percent of their employees near their industries (with sufficient safeguard from environmental hazards)	DAs	
9	Introduce tax on vacant land/plots and enforcement of non-utilization	Land is a precious commodity. Generally people now prefer to invest in plots rather than productive sectors to harvest speculative dividends. The National housing policy 2001 and many studies done in the past have been emphasizing upon imposing of tax on vacant developed plots after a certain period of time. Amendment Urban Immovable Property Tax (1958) is required to introduce property taxes on vacant land so as to release speculative holdings for productive uses and compact development (rather than the current leap-frog patterns of development) and require regular valuation updates and improved procedures.	DAs, TMAs, Cooperative Department in their respective areas of jurisdiction.	FY 2015-16
10	Rationalize tariffs and fees	The development Authorities, TMAs and other public service provision agencies at local levels charge very nominal fee for its services. These user charges need to be rationalized in accordance with the rate of inflation.	DAs TMAs UCs	FY 2015-16
11	Reduce levels of public land ownership through auctions and use proceeds to finance critical infrastructure and engage in a reform of public land development agencies.	An initial step would be to conduct a comprehensive survey of public land ownership in Punjabi cities. Holdings should be evaluated for potential development. High value sites should be auctioned off and the proceeds used to finance infrastructure. At the same time, the Government of Punjab should undertake a thorough assessment of the performance of public land development agencies and undertaking the necessary adjustments. Those may include restructuring, full or partial privatization, liquidation of agencies as well as auctioning of public land holdings and concentrating on provision of infrastructure.	DAs LG&CDD HUD&PHED	2014-18
12	Revision of Punjab Development Cities Act 1976	Review the development authorities' acts (LDA 1975, etc) and Development of Cities Act to determine if existing structures such as Development Authorities (DAs) may function as Special Purpose Organizations (SPO) for planning and development of growth corridors and industrial regions that span divisions, starting with the Punjab Golden Triangle.	HUD & PHED DAs	December 2015

14. Institutional strengthening and capacity enhancement

The following steps need to be undertaken to achieve the above stated vision, objectives and outcomes:

1. Capacity Building of professional staff of TMAs and DAs
2. Establish Divisional Building Control Authorities
3. Establish Divisional Urban Planning Authority
4. Establishment of Regional Land Records Authority and Tribunals
5. Establish Land Market Information System and land development facilitation centers

15. Additional consideration for Expenditure program:

The TMAs and the LDA will be able to generate enough resources to achieve the desired outcomes through;

a. Improved governance and internal monitoring systems with the organizations
b. Sale of Public lands
c. Rationalization of fee structures
d. Public Private Partnerships and
e. Joint venture schemes especially by LDA

16. Organizational tools for achieving Outcomes and implementing programs:

Local Government & Community Development Department will try to improve the capacity of the employees of the TMAs through "Punjab Municipal Services Improvement Project (PMSIP)" funded by World Bank with active involvement of "Punjab Municipal Development Fund Company (PMDFC)". Similarly, the Urban Unit will assist the District Governments and TMAs to improve their efficiencies through Punjab Cities Government Improvement Project and Punjab Intermediate Cities Improvement Project respectively.

The LDA has established a special Planning Unit to undertake large area development schemes. This Unit may facilitate the LDA to monitor the Sector plan activities.

The function of formulation of Area Development Plans of medium and intermediate cities should be given to PHATA or the Urban Unit for time being as the TMAs do not possess the capacity to do the same.

17. Monitoring of Outcomes

Outcomes	Performance Targets and Indicators	Data Source and Reporting Mechanisms
Combat Housing Shortage for Low Income Groups with quality infrastructure	Provided serviced plots by area development/ 3 Marla schemes for affordable housing to the low income segment of the society Provided Affordable Housing	GOPb MICS Departmental Reports Various departmental and

Outcomes	Performance Targets and Indicators	Data Source and Reporting Mechanisms
	Solutions for low income groups Katchi Abadis Upgraded, Regularized and restricted	international agencies' reports
Foster efficient urban & regional planning and infrastructure development for economic growth	Urban & Regional Plans Prepared Area development schemes implemented Provision of improved urban infrastructure Provision of efficient transport infrastructure	Various departmental and international agencies' reports PHEDD and LG&CDD project completion Reports GOPb Municipal Surveys GOPb Service Delivery Surveys
Improve institutional framework for public lands, construction and building regulatory system	Public ownership of land reduced Regularisation of private housing schemes	Independent verifiers Reports
Improved governance and internal monitoring systems	Billing and collection system improved GIS based survey conducted to identify revenue potential and update the tax base Generating economic growth	GOPb Municipal Surveys GOPb Service Delivery Surveys

18. Review and Oversight committees

Planning and Development Board may provide the composition of the committees

Urban Water Supply and Sanitation

Providing clean drinking water and adequate sanitation and sewage facilities to urban residents is a priority area of the Government. This is critical for public health reasons – more than 50% of diseases are water-borne. Investment in this area will have a major benefit of preventing diseases and reducing expenditure in healthcare. This will raise the productivity of our labor force, which will lead to economic growth.

Investment in providing adequate sewerage and sanitation facilities has very high returns, as it has a significant impact on improving public health by reducing waterborne diseases, thus raising productivity and economic potential of labor.13 The Government is therefore prioritizing investments in improving sanitation facilities especially in deprived areas on a need basis.

Measured relation to the coverage in 1990, the MDG Goals aimed at halving the share of people without sustainable access to an improved water source by 2015. This essentially requires Punjab to achieve a target of 93 % by 2015. Nevertheless, the situation is quite opposite with respect to overall targets of Punjab. Punjab is on target with regard to achievements of MDGs for provision of improved drinking water while off track with regard to improved sanitation facilities.

1. Urban Water Supply:

Punjab is the most populous province which inhabits about 93 million people that make 56% of total population of the country, 38% (32 million) live in urban and 62% (61 million) in rural areas[19]. As of 2014 nearly 57 % of the urban population resides in the 5 largest cities including Lahore, Faisalabad, Multan, Gujranwala and Rawalpindi and Urban Water and Sanitation Authorities (WASA's) service the large cities. The remaining urban population is scattered in small and intermediate towns serviced by "Tehsil Municipal Administrations (TMAs).

The province can be divided into three drinking water zones; predominately sweet ground water zone (53%) comprising of districts from central and southern parts, predominately brackish zone (29%) mostly located in southern part, predominately barani areas (18%) comprising of southern and northern parts.

The table depicts the population distribution according to water quality zone.

WQ Zone	Population (000)	District
Sweet	**38,200**	**14**
Brakish	**35,280**	**13**
Barani	**24,500**	**09**
Total	**98,000**	**36**

Source: PHED 2014

Underground water sources are fast being depleting due to unsustainably high withdrawals. The amount of per capita water resources has decreased from 5,300 cubic meters in the 1950s to about 1,000 cubic meters in 2011 – the international definition of water stress.

Surface water supplies are increasingly threatened by waste water pollution, since only 50% of waste water is collected and 10% treated. Moreover, the groundwater is now being over-exploited in many areas, and its quality is deteriorating, a reality that is likely to get worse, because there is 20 million tons of salt accumulating in the system every year.

Definitional issues impede a clear consensus on coverage estimates for the water and sanitation sector in Pakistan as a whole, and in the Punjab. There are differences in determining what constitutes 'improved' coverage and indicators used by the various household surveys. Broadly, however, there is consensus that while the water supply sector is on track to meet the MDG target, sanitation lags behind fairly limited targets.

MDG Goals and Targets	Indicators for Monitoring	MDGs Targets by 2015	Coverage as per MICS 2011			Status of Urban Coverage
			Punja b	Urban	Rural	
Halve, by 2015, the proportion of the population without	Proportion of population using an improved drinking water	93%	94%	88%	96%	**Off Track**

[19] Punjab Bureau of Statistics 2013

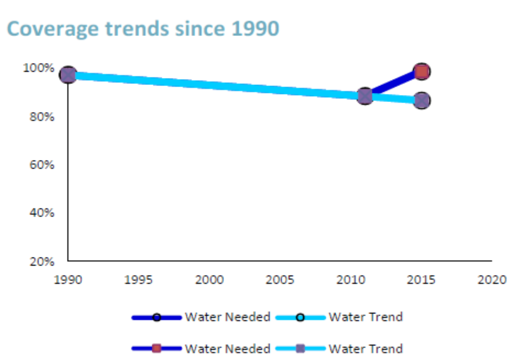
sustainable access to safe drinking water and basic sanitation	source					
	Proportion of population using an improved sanitation facility	90%	72%	92%	64%	**On Track**

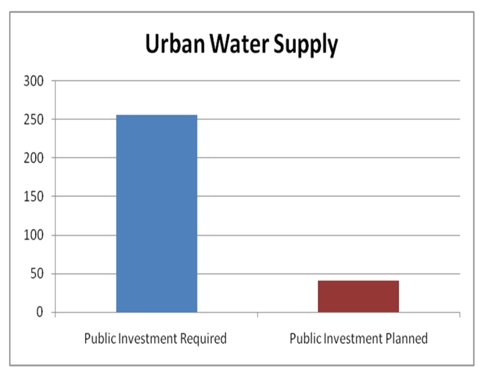
Source: HUD & PHE Department

<u>Improved drinking water sources</u> means piped water, hand pump, motorised pump, tubewell /borehole or turbine, protected well and spring

<u>Improved sanitation</u> means flush or pour flush to a piped sewer system, septic tank, or pit latrine, ventilated improved pit latrine, pit latrine with slab, and use of a composting toilet

Estimates of provincial coverage for 2011 are also contained in the Punjab MICS 2011, that shows that the urban coverage in Punjab has surprisingly declined to 88 %; 9 % coverage drop over a 20 year period. The 2010/11 estimates from the Pakistan Social and Living Standards Measurement Survey (PSLM) shows a slightly higher estimate with a distribution of 32% tap water, 28% hand pumps, 27% motor pumps, 4% dug wells and 9% others. Assuming “other sources” reflect unimproved water sources, the aggregate access to improved water source stands at 91%. Measured in relation to the coverage in 1990, the MDG Goals aimed at halving the share of people without sustainable access to an improved water source by 2015. This essentially requires Punjab to achieve a target of 93 % by 2015. Nevertheless, the situation is quite opposite with respect to overall targets of Punjab. Punjab is on target with regard to achievements of MDGs for provision of improved drinking water while off track with regard to improved sanitation facilities.





Other than the source of drinking water, it also imperative to determine whether the water has been treated to ensure that it is safe to drink. According to the World Health Organization guidelines safe drinking water is the water with microbial, chemical and physical characteristics that meet WHO guidelines or national standards on drinking water quality.

Water treatment trends are higher in large cities where 31 % of the residents use some form of treatment followed by other urban areas (7%). Majority of urban schemes are provided with water treatment facilities, often in the form of chlorine injectors, although this does not always translate into effective or consistent practices for water treatment.

The analysis of Water quality Monitoring Survey 2012 conducted by the PHED in collaboration with UNICEF and Pakistan Council of Research in Water Resources (PCRWR) shows that overall 36% of drinking water from improved sources of Punjab is safe.

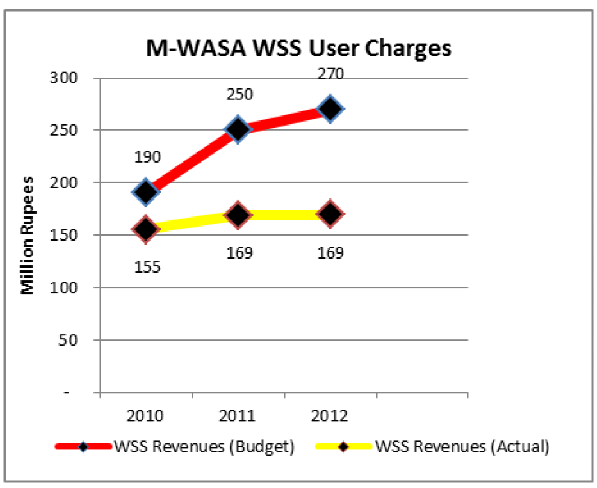
On the operational fronts virtually all of the Punjab "Urban Water and Sanitation Authorities" (WASA's) are faced with a grim fiscal situation. Operating Ratio is the ratio of operating expenditure (OPEX) to operating revenues (User Charges + other operating income excluding UIPT). It should ideally be less than 1.00 i.e. the OPEX should be less than the operating revenues of the organization. In all the five WASAs in FY 2012 this ratio was more than 1.00 i.e. operating revenues were unable to cover the operating expenditure which is many times the operating revenues ranging between 1.66 (R-WASA) to 4.75 (G-WASA). During this period, each year the working ratio has generally become poorer compared to the previous year.

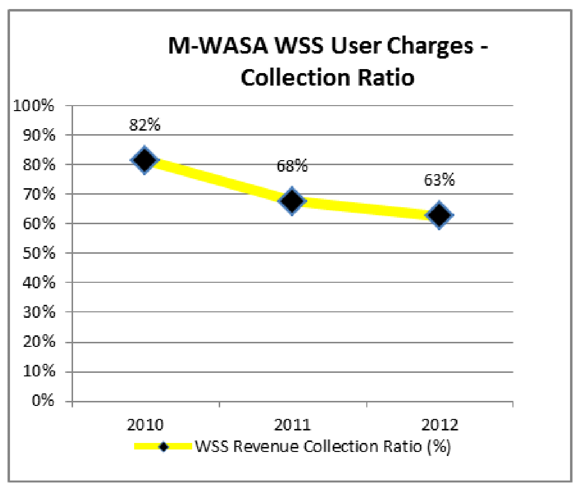
WASAs – Operating Ratio/ Working Ratio

	2010	2011	2012
M-WASA	2.76	2.77	3.44
L- WASA	1.95	2.11	2.27
G- WASA	7.04	4.35	4.75
R- WASA	1.48	1.82	1.66
F- WASA	1.43	1.74	1.86

Source: The Urban Unit 2013

Outside the large cities the urban population is spread over a large number of small and intermediate Punjab towns which are serviced by "Tehsil Municipal Administrations" (TMAs) that are faced with a similar financial crunch. Over a 5 year period salary costs for urban water supply in Punjab TMAs have risen by 220 % while non-salary costs have increased by 73 %. Stuck with poor tariff structures and no mandates or capacities for generating other "revenue sources" virtually all of the Punjab TMAs are heavily reliant on annual provincial transfers that keep them afloat[20].





A review of the tariff structure shows inadequate tariffs and up-dation frequency; virtual lack of metering (less than 5 %); "land area" versus "water usage" based flat rates; and poor collection efficiencies. Provincial policy controls have also restricted WASA's from raising tariff which is widely seen to be politically sensitive.

Moreover, the sector institutions have remained in flux with overlapping and unclear roles, particularly in non- WASA areas. Service provision and regulation functions are currently inter-twined within the broad roles of WASAs and TMAs which is in clear contrast with stated public policy and best practices. On the planning fronts, no formal and consistent mechanism exists to coordinate sanitation sub-sector investments. Quarterly and Annual departmental reviews take place at the level of WASA's, LG&CD, PHED and the P&D. However there is no evidence of a structured

[20] Punjab Service Delivery Assessment 2013

W&S Institutional group for sector or sub-sector wide review; coordination of funding flows or joint reviews of progress across respective domains. Moreover, to date there is no consolidated geo-referenced database which will allow for planning. Similarly, no regulatory body exists. In effect this means that there is no body that provides neutral or third party audited information on:

- coverage
- performance
- sector financing/targets formulae

Broad oversight is provided by the Planning Department, but the capacity for detailed sector oversight by the small cell remains limited.

With regard to equity policy and procedures exist for community local participation but these are not operationalized; thus neither WASAs, PHEDs or the TMAs have any structured system for local participation in planning and decision making in urban areas (such as those for PHED for rural areas). The few pilot schemes under the "Changa Paani project" are an exception where a structured approach to community participation has been successfully demonstrated. Multi-stakeholder events in the sector are few and ad hoc.

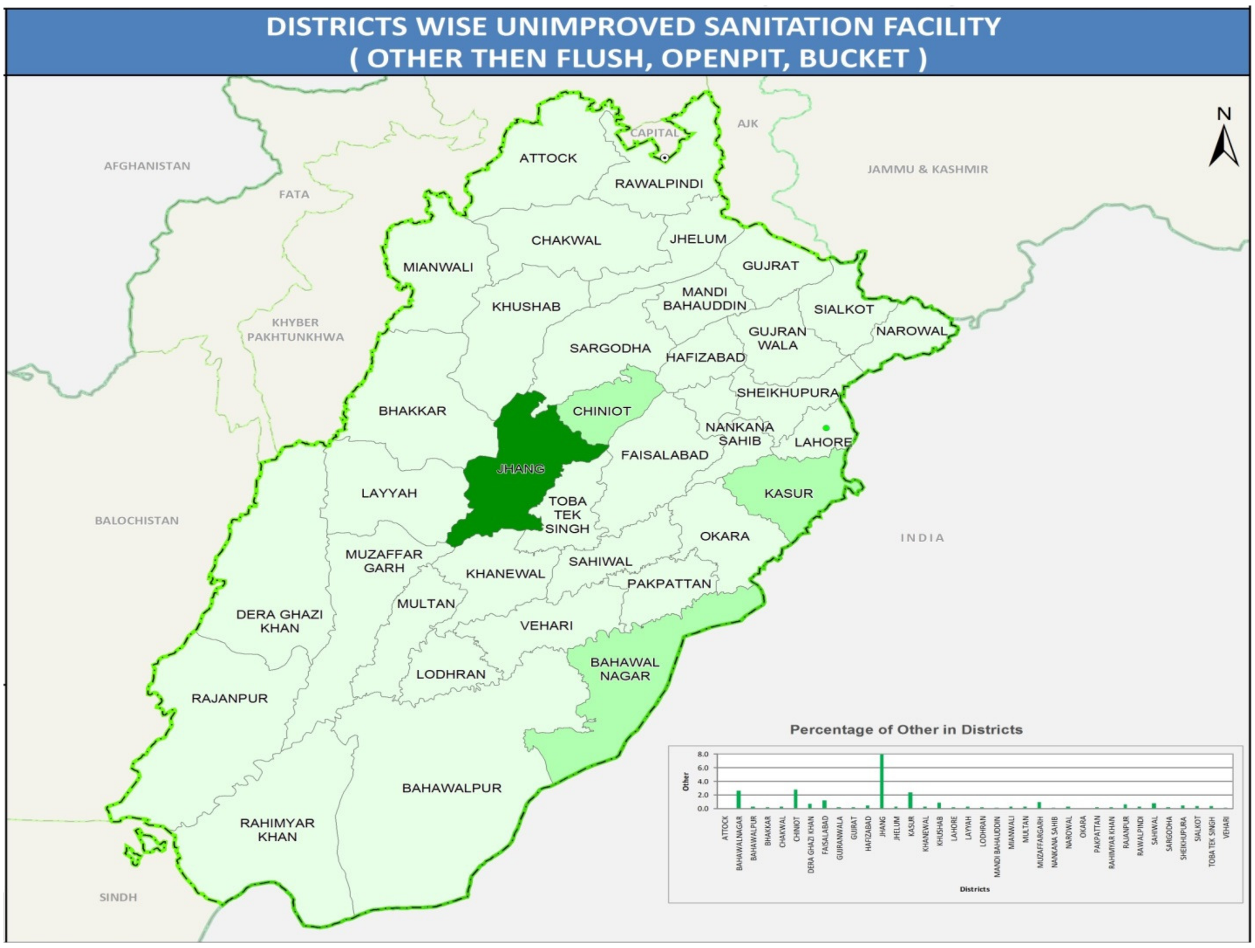
To recapitulate, the following are the major constraints in sustained supply of improved water in urban areas[21]:

- Depletion of water level due to successive supply of underground water and decreasing recharge of aquifers due to shortage in the moment of water through river basins and concretization of urban areas.
- Wastage of sweet drinking water as a result of lack of awareness absence of regulatory frameworks, non-existence of demand management tools like consumer meters and highly inappropriate tariffs.
- Contamination of surface and underground water aquifer due to discharge of untreated industrial, domestic and commercial effluent.
- Increase in arsenic levels and of other contaminants in the underground aquifer and of urban drinking water due to leakage in over aged water and sewerage pipes.
- Financial constraints
- Institutional bottlenecks
- Lack of capacity

[21] Salman Yusuf "Challenges and opportunities in urban water supply in Punjab province 2011", HUD&PHED

19. Urban Sanitation:

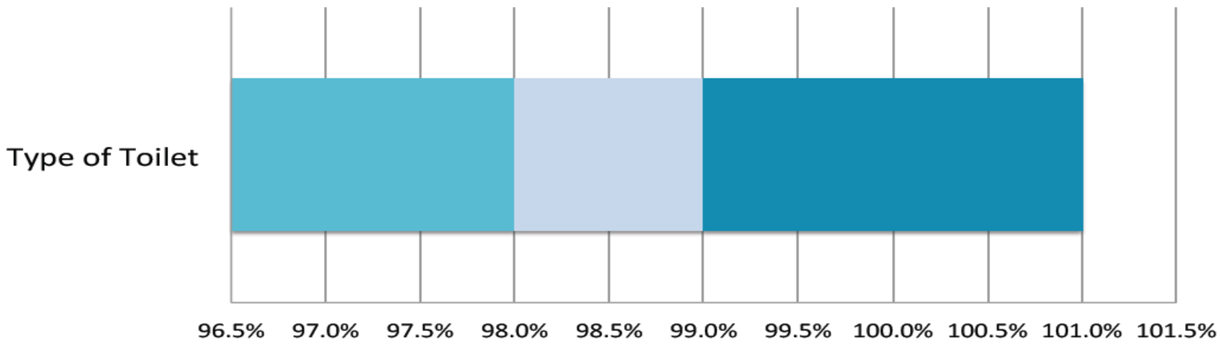
The baseline data on urban sanitation coverage of improved sources in 1990 was estimated at 78 %. Estimates of sanitation coverage for 2011 are contained in the Punjab MICS 2011. This shows a distribution of Flush to pipe sewer (57.3%); Flush to septic tank (32.5 %); Flush to pit latrine (1.8 %); Flush to VIP latrines (0.2 %); Flush to pit latrine (0.4 %); and compost at (0.1 %). Using a correction factor for the “flush to septic tank” and “flush to pit latrines” the updated Punjab coverage for “Sanitation” from safe sources works out to 84 % .Measured in relation to the coverage in 1990, the MDG Goals aimed at halving the share of people without sustainable access to an improved sanitation source by 2015. This essentially requires Punjab to achieve a target of 89 % by 2015. Using the Punjab MICS and projecting a linear trend, the 2015 coverage is estimated at 85 %. Thus MDG goals are not likely to be achieved.



The PSLM 2012-13 shows that flush toilet is the prominent source of sanitation in urban. No toilet was found in about 2% of households.

The urban sewerage system faces many problems. These range from frequent blockage of sewers due to inadequate maintenance, to uncontrolled raw sewage generated by the use holds of low income areas that flows either directly into residential lanes, or into small open or covered drains, or into sewers along these lanes, or accumulates to form ponds, or percolates into shallow groundwater contaminating the aquifer often used by households for their water supply.

The budget structure for WASA as well as PHED shows sewerage and drainage combined and therefore poses a fundamental question for assessing and analyzing sub-sector budgets. For the purposes of the SDA the "household sanitation" and "street level drainage" is currently lumped and treated as "Sanitation". The key reason for this is that WASAs as well as all TMAs currently manage the two under a common heading. All capital and recurring costs on the sub-sector are also difficult if not impossible to dis-segregate for Punjab and therefore treated as a lumped sector.



	Type of Toilet
Flush	98.0%
Non Flush	1.0%
No Toilet	2.0%

The Government of Punjab is committed to provide adequate facilities of safe drinking water and improved sanitation facilities to the entire population of the province in general and the urban areas in particular. This commitment is has been manifested at number of Forums and policy documents such as Mid Term Development Framework 2015, adoption of MDGs wherein the target 10 of Goal 7 is to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. In South Asian Conference on Sanitation (SACOSAN –V) it has been committed to have an Open Defecation Free Environment by 2023 and to progressively move towards sustainable environment sanitation. The Punjab Growth Strategy 2018 echoes that the provision of clean drinking water and adequate sanitation and sewage facilities to urban residents is a priority area of the Government.

The 1973 Constitution made the provision of water supply and sanitation services a provincial responsibility. This has been further reinforced by the Local Government Act 2013. The Punjab Local Government & Community Development Department (LG&CDD), including local bodies, and the Housing, Urban Development and Public Health Engineering Department (HUD&PHED), including WASAs and CDGs, has been mainly entrusted to translate the public policy into reality.

20. Sector Vision

"Provision of sustainable and safe water and adequate sanitation services to the entire population and for the economic activities in the urban areas of Punjab"

21. Sector Objectives and priorities:

The strategic objectives enlisted in MTDF for water and sanitation sub sector are as follows:

- Provision of safe drinking water and sanitation facilities to the urban communities of Punjab to achieve Millennium Development Goals (MDGs) by 2015.
- Ensuring water quality through provision of water filtration plants.
- Improving sanitation and environmental sustainability.
- Ensuring priority in resource distribution for sanitation sector.
- Effective Measures to make maximum area of Southern Punjab Open Defecation Free (ODF).
- Rehabilitation of dysfunctional schemes in brackish and barani areas.
- Ensuring regional equity (North & South Zones) in the developmental portfolio.

22. Sector Outcomes and Outputs:

The HUD & PHED and LG&CD Departments have converted their agenda of priorities, described above, into measureable and achievable targets in annual and medium term perspective necessary to achieve the objectives of the sector.

As discussed above, many changes are on the cards in near future in terms of functional hierarchies and organizational arrangements within the HUD & PHE Department such as formulation of district water authorities, turning WASAs into companies and enhancing the role of Saaf Pani Company, nevertheless the targets, listed below, may remain the same, whoever the responsible agencies may change.

Outputs	Activities	Responsible Agency	Targets	Medium Term Targets		
			2014-15	2015-16	2016-17	2017-18
Outcome 1:	**"Expanded service coverage to give access to 100% of the population of Urban areas to safe drinking water and improved sanitation facilities"**					
1.1 Improved sanitation facilities to 100% population in Urban Areas	1.1.1 Percentage of population having improved sanitation services	HUD & PHED	93%	95%	97%	100%
1.2 Access to adequate quantity of improved drinking water provided to 100% population of urban areas	1.2.1 Percentage of population having improved drinking water	HUD & PHED	90%	93%	96%	100%
	1.2.2 Number of existing water supply schemes replaced/rehabilitated	LG &CD		6	6	4
1.3 Water quality testing labs operationalized in all districts	1.3.1 Number of water quality Testing laboratories in operation	HUD & PHED	3 35	36 (1 new)	4 36	- 36
	1.3.2 Number of water samples examined	HUD & PHED	14400	14400	14800	14800
Outcome 2:	**"Sustained and environment friendly service provision through resource management and technical efficiency"**					
2.1 Water resources effectively managed	2.1.1 Number of cities (District HQs/Urban Centres) where rainwater harvesting systems institutionalized through Notifications	LG &CDD		5	12	19

Outputs	Activities	Responsible Agency	Targets	Medium Term Targets		
			2014-15	2015-16	2016-17	2017-18
	2.1.2 Number of ground water recharge system developed for aquifer replenishment (institutionalization and investments)	WASAs	1	3	10	10
	2.1.3 No. of cities where Production cost reduced through Energy Audit investments & conservation against the total number	LG&CD		15 cities (5%)	20 cities (10%)	20 cities (15%)
		WASAs		5	contd	contd
	2.1.4 Number of cities where ground water level monitored through provincial GIS/MIS based system.	IPD/Urban Unit		System Established	36	contd
2.2 Environment friendly disposal of sewage water	2.2.1 Number of feasible studies for treatment system of wastewaters conducted	EPD/PHED	1	2	2	
	2.2.2 Number of pilot decentralized Sewage water treatment system constructed one in big city, one intermediate and one in small city	WASAs/LG &CDD		(1)WASAs	1 (LG &CDD)	1
2.3 Community mobilized for efficiency gains.	2.3.1 Number of Teachers trained on health education and environmental education (conservation and protection of potable water & hygiene)	LG&CDD/ Education		10,000	10,000	10,000
	2.3.2 Number of employees trained as Master Trainers on water conservation methods and techniques	Punjab WATSAN Academy		360		
	2.3.3 Number of targeted households aware on water conservation through communication strategy	HUD & PHED /Information Dept			50%	50%

Outputs	Activities	Responsible Agency	Targets 2014-15	Medium Term Targets 2015-16	2016-17	2017-18
	2.3.4 Number of small and medium cities where Changa Paani/component sharing project scaled up/expanded	LG&CDD		3	5	5
Outcome 3	**"Improved Governance and administrative systems for better and efficient service delivery"**					
3.1 Resource planning carried out	3.1.1 Percentage of total number of big cities with Master Plans for sanitation , Water supply and drainage upto 2035	WASAs		4	Contd	
	3.1.2 Percentage of total number of intermediate cities with Master Plans for sanitation, Water supply and drainage upto 2035	LG&CDD		4	4	4
	3.1.3 Number of cities GIS based survey of facilities/Asset Management	LG&CDD	75 (Phase I)	70 (Phase II)	50 (Phase II)	45 (Phase II)
		WASAs		5	contd	contd
	3.1.3 Number of cities where Energy Audit of Production Facilities carried out/ and appropriate corrective investments planned and undertaken.	WASAs		5	contd	contd
	3.1.4 Number of cities where bulk meters installed at major distribution system, tubewells, disposal stations and overhead reservoirs to measure quantity pumped of water.	LG&CDD D		20	30	30
		WASAs		5	contd	contd
3.2 Efficient Billing and collection system put in place for enhanced revenue collection	3.2.1 Number of cities where Unit cost for each service calculated	LG&CDD D		20	30	30
		WASAs		5	contd	contd
	3.2.2 Number of cities where	LG&CDD		30	30	45

Outputs	Activities	Responsible Agency	Targets	Medium Term Targets		
			2014-15	2015-16	2016-17	2017-18
	improved system for customer reference numbers developed	WASAs		5	contd	contd
	3.2.3 Number of cities where computerized billing and collection system established	LG&CDD		30	30	45
		WASAs		5	contd	contd
	3.2.4 Billing ratio increased for each service for small & medium cities and five big cities(water supplies) as per agreed KPIs through efficient means (such as outsourcing)	LG&CDD		30 cities (10%)	30 cities (10%)	45 cities (10%)
		WASAs		5	contd	contd
	3.2.5 Collection ratio increased for each service for small and medium cities (water supplies) and five big cities as per agreed KPIs through efficient means (such as outsourcing)	LG&CDD		30 cities	30 cities	45 cities
		WASAs		5	contd	contd
	3.2.6 Amount of arrears recorded and recovered for small and medium cities (water supplies) and five big cities as per agreed KPIs through efficient means (such as outsourcing)	LG&CDD		10	15	15
		WASAs		5	contd	contd
	3.2.7 Illegal connections detected and regularized for small and medium cities (water supplies) and five big cities	LG&CDD		20	20	30
		WASAs		5	contd	contd
	3.2.8 Consumer water meters installed for accurate billing for small and medium cities (water supplies) and five big cities (through service connection fee/ govt support)	LG&CDD D		10	10	10
		WASAs		5	contd	contd

23. Programs, projects, expenditures to achieve Outcomes (*Expenditure program*)

In this section only those initiatives have been reflected that would be financed from capital side of the budget or through development portfolio by the government (whether through local or foreign funding or even in the form of PPP projects). The activities, listed above, which need to be financed from the revenue side or from the current side of the provincial budget, have not been incorporated in this section.

Projects/Programmes	Responsible Agency	Funding Source	Budget Estimates 2015	Projection for 2016	Projection for 2017	Projection for 2018
			(Rupees in Million)			
Outcome 1:	**"Expanded service coverage to give access to 100% of the population of Urban areas to safe drinking water and improved sanitation facilities"**					
Water supply New and Ongoing schemes in Urban Areas	HUD &PHED	GOPb /PICIIP /Own source revenues	3207.96	**7000**** (3197 MTDF + +3808 addl)	**6000** (3532 MTDF + 2468 a(ddl)	**6000** (3960 MTDF + 2040 addl)
Provision of Water Supply facilities in poor localities of Faisalabad	WASA-F	GOPb	86.805			
Augmentation of water Supply System in Multan	WASA-M	GOPb	150			
Number of existing water supply schemes replaced/rehabilitated	LG&CDD	PMSIP – II		150	150	100
Replacement of Outlives, Deeper and Inadequate Water Supply Lines , Lahore	WASA-L	Gastro Phase II	800	400	508	
Replacement of Outlives, Deeper and Inadequate Water Supply Lines , Faisalabad	WASA-F	Gastro Phase II	100	75		
Replacement of Outlived, Rusty & Leaking pipelines in Multan	WASA-M	Gastro Phase II	39.157			
Replacement of Outlived, Rusty & Leaking pipelines in Gujranwala	WASA-G	Gastro Phase II	100	60		

Projects/Programmes	Responsible Agency	Funding Source	Budget Estimates 2015	Projection for 2016	Projection for 2017	Projection for 2018
			(Rupees in Million)			
Replacement of Outlived, Rusty & Leaking pipelines in Gujranwala	WASA-G	GOPb	200	400	400	
Rehabilitation/Replacement of 20 No. inefficient and Abandoned Tubewells with pumping machinery and Allied Works Rawalpindi	WASA-R	GOPb	20			
Comprehensive water supply scheme for various localities of RWP	WASA-R	GOPb	200	340	300	300
Feasibility and detailed design for Augmentation of water supply of Rawalpindi based on Chahan Dam Source for new areas added in jurisdiction	WASA-R	GOPb	20			
Improvement of Water Supply schemes in various localities of Lahore	WASA-L	GOPb	1300	1000	1879.447	1500
Water Supply Distribution Network in Gujranwala City	WASA-G	GOPb	75	75		
New and Ongoing Schemes for urban sanitation	HUD &PHED	GOPb /PICIIP /Own source revenues	3592.288	**4400*** 1441 (MTDF) + 2959 (addl)	**4500** 1208 (MTDF) + 3292 (addl)	**4500** 1208 (MTDF) + 3292 (addl)
Restoration of original cross section of Sattu Katla Drain from Ferozpur road to Peco Road Lahore	WASA-L	GOPb	110.789			
Miscellaneous Sewerage & Drainage Requirements of different towns of Lahore	WASA-L	GOPb	100	141		

Projects/Programmes	Responsible Agency	Funding Source	Budget Estimates 2015	Projection for 2016	Projection for 2017	Projection for 2018
			(Rupees in Million)			
Provision of Sewerage in UC 117.118,& 120 Lahore	WASA-L	GOPb	1400	1000	509.806	
Elimination of Sewerage inlets in Lahore Branch Canal from Harbanspra Interchange to BRB canal	WASA –L	GOPb	100	220		
Sewerage System from Larex Colony to Gulshan-e-Ravi lahore	WASA –L	GOPb	50	500	800	1516
Construction of RCC Conduit Sewer from Shaukat Khanam Hospital chowk to Sattu Katla Drain	WASA –L	GOPb	100	200	300	400
Laying of Forvce-main from Bhogiwal Road Disposal Station to Shalimar Escape Channel	WASA –L	GOPb	400			
Comprehensive Sewerage Scheme for Gujranwala City	WASA-G	GOPb	843.730			
Up grading of mechanical system for sewerage and drainage services in Gujranwala	WASA-G	GOPb	75	100	36.468	
Replacement of Outlived Sewer lines in four towns of Faisalabad	WASA-F	GOPb	100	89.932		
Provision of Sewerage Facilities in various Abadis of Faisalabad	WASA-F	GOPb	100	216.096		
Remodeling of Channel # 4 Faisalabad	WASA-F	GOPb	67.416			
Remodeling of Channel # 1-F Faisalabad	WASA-F	GOPb	43.412			
Rehabilitation of/Replacement of existing pumping machinery at	WASA-F	JICA Grant	10	50	60	

Projects/Programmes	Responsible Agency	Funding Source	Budget Estimates 2015	Projection for 2016	Projection for 2017	Projection for 2018
			(Rupees in Million)			
Inline Booster Pump Station & Terminal Reservior Pump Station , Faisalabad						
P/L Sewerage Lines of Sewer Deficient Areas, Faisalabad	WASA-F	GOPb	50	130		
Dredging/Desilting of Lai Nullah, Rawalpindi	WASA-R	GOPb	30.700			
Laying of Trunk, secondary and lateral sewer in eastern side of Muree road	WASA-R	GOPb	100	100		
Construction of Leftover Works of Sullage carrier from Bosam Road Disposal Station to Seagw treatment plant at Suraj Mianai and STP to River Ghenab Multan	WASA-M	GOPb	501.360			
Construction of RCC Drain Qila MianSingh Minor from Rajkot disposal station to Western Bypass Gujranwala	WASA-G	GOPb	500	460		
Sewerage scheme Rakh Kikranwali, Gujranwala	WASA-G	GOPb	76.125			
Water Testing Lab in Channiot	HUD &PHED	GOPb		1.00		
Outcome 2:	**"Sustained and environment friendly service provision through resource management and technical efficiency"**					
Training of Master Trainers by HUD&PHED	HUD &PHED	GOPb		4.86		
Training by master trainers (mobilization) by HUD&PHED	HUD &PHED	GOPb			40	40
Rainwater harvesting initiatives	LG & CDD	GOPb		5		

Projects/Programmes	Responsible Agency	Funding Source	Budget Estimates 2015	Projection for 2016	Projection for 2017	Projection for 2018
			(Rupees in Million)			
Water Managements through aquifer replenishment.	WASAs	GOPb	5	15	50	50
Extension of Water Resources for Faisalabad	WASA-F	GOPb	887			
Changa Paani Programme Shamabad Faisalabad	WASA-F	GOPb	44			
Upgradation/Rehabilitation of Rawal lake Filteration Plant Rawalpindi	WASA-R	GOPb	200			
Production cost reduced (energy conservation) against the total number in small and intermediate cities	LG & CDD	GOPb		61.5	75	75
People educated on health hygiene practices, conservation and protection of potable water for						
Small and medium cities where Changa Paani project scaled up/expanded						
Production cost reduced (energy conservation) against the total number in five big cities	WASAs	PCGIP	One of the components of the action plan agreed by WASAs through PCGIP funds.			
Feasibility study for Hadyara Drain for treatment of drain wastewaters	Environment	GOPb	50			
Decentralized Sewage water treatment system constructed	WASAs/LG &CDD	GOPb		60 (WASAs)	50 (LG)	50 (LG)
Feasibility study for surface water induction and construction of water treatment plant Lahore	WASA	GOPb	8			
Outcome 3	**"Improved Governance and administrative systems for better and efficient service delivery"**					

Projects/Programmes	Responsible Agency	Funding Source	Budget Estimates 2015	Projection for 2016	Projection for 2017	Projection for 2018
			(Rupees in Million)			
Punjab Water and Sanitation Academy, Lahore	WASA Urban Unit	JICA	19.538	20	100	286.292
Local Government initiatives to improve governance and administrative systems and efficient service delivery in small and intermediate cities	LG & CDD	GOPb		452.5	480	603.8
	LG & CDD	PIMSIP-II		35	35	30
Preparation of Master Plan fro Water Supply, Sewerage & Drainage System for Lahore	WASA-L	ADP PCGIP	80	110		
Master Plan for Water Supply, Sewerage and Water Treatment Plant for Faisalabad	WASA-F	GOPb	66			
Master Plan for Water Supply, Sewerage and Water Treatment Plant for Rawalpindi	WASA-R	GOPb	25	25		
Master planning of Water Supply, Sewerage and Drainage System of WASA Multan	WASA-M	GOPb	20	50		
Feasibility study for integrated solution of water supply, sewerage,	WASA-F	French Grant	10			

Projects/Programmes	Responsible Agency	Funding Source	Budget Estimates 2015	Projection for 2016	Projection for 2017	Projection for 2018
			(Rupees in Million)			
Drainage, and waste water treatment system in Faisalabad						
Reform Programme to improve governance and administrative systems and efficient service delivery in five large Cities	WASAs	PCGIP	One of the components of the action plan agreed by WASAs through PCGIP funds.			

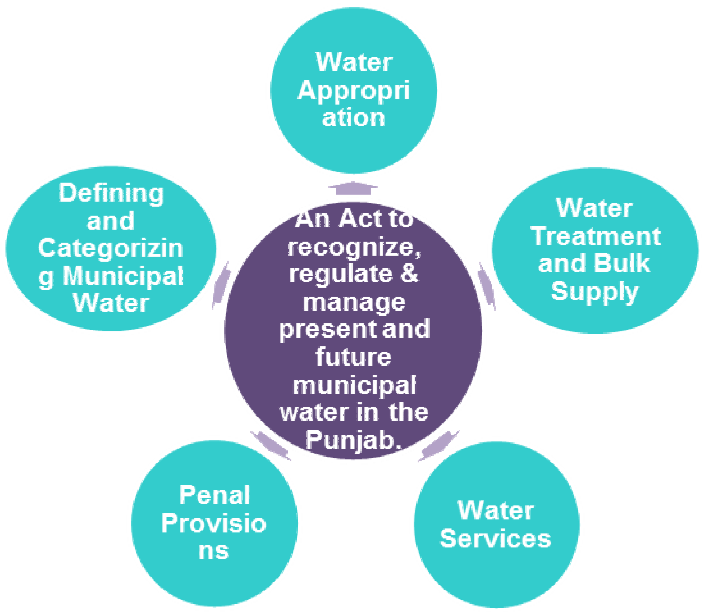
*This is 57%ofthe total cost because the trend (MICS) shows that people themselves invest for the rest of the cost for improved sanitation.

** This is about 51% of the total cost because the trend (MICS) shows that people themselves invest for the rest of the cost for improved water.

24. Policy reforms

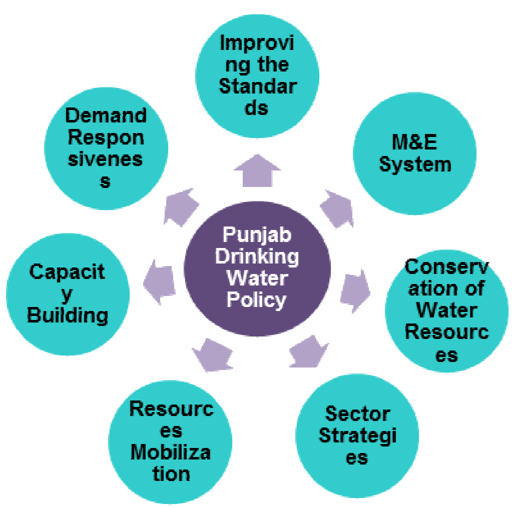
a) Draft Punjab Water Act:

At the moment there exists no provincial legal framework that covers all the aspects of sound water management and ensures this basic service to the people, today and tomorrow, on sustained basis without any hazard to the environment. The draft of the ACT has been prepared by the Urban Unit and it is hoped that, after meaningful consultations, it would be presented in the provincial legislature for discussion and approval.



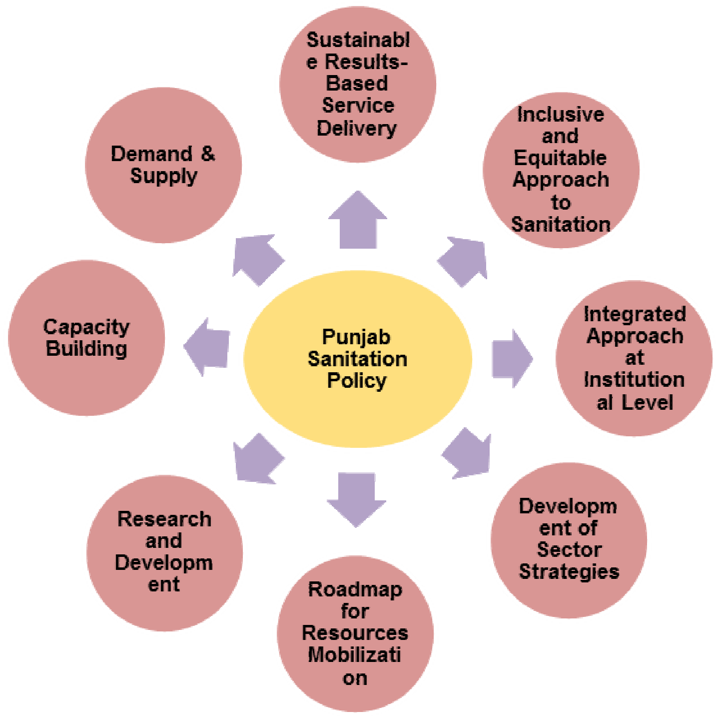
b) Punjab Drinking Water Policy

The aim of the policy is the provision of safe drinking water of an adequate quantity at an affordable cost through equitable, efficient and sustainable services to all citizens by 2020.



c) **Punjab Sanitation Policy**

The draft for Punjab Sanitation Policy is ready for approval to ensure that the entire population of punjab has access to safe and affordable sanitation for quality life by 2025. The salient features of the policy have been summarised as follows.



d) **User fee rationalization for water and sanitation**

As explained in the section of situation analysis, it is quite evident that WASAs and TMAs have been badly trapped in financial crunch due to non - revision of water rate since 2003. Resultantly, the cost of production of water is increasing whereas the collection is either static or decreasing. I this scenario it is imperative to link the Water Tariff with the Electricity, Salaries & Price Index. Moreover, the collection ratio may also be increased through capacity building of the agencies.

e) **Rainwater Harvesting Rules**

The government of the Punjab, within the framework of sustainable Development and conservation of ground water resources, need to address the issue of over exploitation of ground water resources and encourage and regulate recharge of ground water through Rain Water Harvesting.

Under PLGA 2013 section 145 , it has been decided that henceforth, no building permission be granted unless provision is made for Rain Water Harvesting System Bye law after approval of Government . It is therefore, necessary to include Rain Water Harvesting Scheme provision in Building Control Rules & Bylaws and for that purpose, directions to all the Development Authorities, District Government and Local Government entities to modify the control regulations to incorporate special provision for installation of Rain Water Harvesting System esp the cities of the Northern Punjab.

25. Institutional strengthening and capacity enhancement

a. Formulation of Regulatory Bodies

In compliance of the Punjab Water Act and carryout the regulatory functions, it is important to ensure a provincial "Regulatory body" is created along with its field. The watchdog body will require sustained policy and financial support. It will provide for a long-term sector perspective with regulatory functions to cover: (i) compliance with environmental regulations and monitoring of water quality; (ii) groundwater abstraction; (iii) tariff setting; (iv) providers' performance; and (v) protection of customer interests.

b. Water and Sanitation Authority/Company at Five WASAs (corporate).

One of the important institutional reforms that need to be carried out to achieve the desired objectives is to transform WASAs into independent entities to be governed by Board of Directors under HUD & PHED Act. The following slide explains the reform agenda in a summarized manner.

Basic Principles

- Professional Board of Directors
- Regulation (Regulator)
- Autonomy & Accountability
- Organization re-structuring

Stakeholders

- WASA
- LWMC
- PHED
- Local Governments and Authorities
- Lahore Chamber of Commerce & Industries
- Irrigation Department (for Surface Water)
- Fisheries and Wildlife
- Parks and Horticulture

Water Regulation

- Administrative regulator
- (Government)
- Technical regulator
- (Water quality, Environmental standards)
- Economic regulator
- (Tariff, costs, etc.)

Outcomes

- Improvement in Service Delivery Levels
- Quick Decision
- Involvement of Pillars of Society in decisions
- Customers Satisfaction
- Protection of water resources
- Establishing rights
- Conversion into Utility equal to the good water utilities of the world

c. Punjab WATSAN Academy

The Punjab WATSAN Academy has been planned by GoPb & JICA after consultation with Stakeholders in realization of Needs of WASA's PHED etc through JICA grant in Aid Technical Support to Punjab Government in 2010. The overall goal is to build the capacity of the professionals in the sector with the objective to improve the delivery of service to the people. The academy shall be manned by the Urban Unit, Pvt Ltd Planning and Development Department.

d. Improvement in Service Cadres and Mandatory Training

It is very important to review the service cadres engaged in sector service delivery (at all levels) with a view to developing a coherent service cadre for the sector and introduce mandatory trainings for promotions. This would require assessment of existing capacities and HR needs for: (i) strategic planning and management; (ii) engineering and technical; (iii) financial management; (iv) urban management; (v) social/community development/customer focus.

26. Additional consideration for Expenditure program:

It is hoped that the implementation of the Sector Plan, in its entirely, the government may save additional funds as a result of the corrective measures especially tariff rationalization and improving billing and collection system. These savings, for each year, may be channelized to fund the water and sanitation schemes for the next years.

27. Monitoring Framework for the Outcomes

Outcomes	Performance Targets and Indicators	Data Source and Reporting Mechanisms
Expanded service coverage to give access to 100% of the population of Urban areas to safe drinking water and improved sanitation facilities	Improved sanitation facilities to 100% population in Urban Areas Access to adequate quantity of improved drinking water provided to 100% population of urban areas Water quality testing labs operationalized in all districts	GOPb MICS GOPb MICS Departmental Reports
Sustained and environment friendly service provision through resource management and technical efficiency	Water resources effectively managed Environment friendly disposal of sewage water Community mobilized for efficiency gains.	Various departmental and international agencies' reports PHEDD and LG&CDD project completion Reports GOPb Municipal Surveys GOPb Service Delivery Surveys
Improved Governance	Resource planning carried out	GOPb MICS

Outcomes	Performance Targets and Indicators	Data Source and Reporting Mechanisms
and administrative systems for better and efficient service delivery	Efficient Billing and collection system put in place for enhanced revenue collection	Independent verifiers Reports GOPb Municipal Surveys GOPb Service Delivery Surveys

28. Review and Oversight committees

Planning and Development Board may provide the composition of the committees

URBAN SOLID WASTE MANAGEMENT

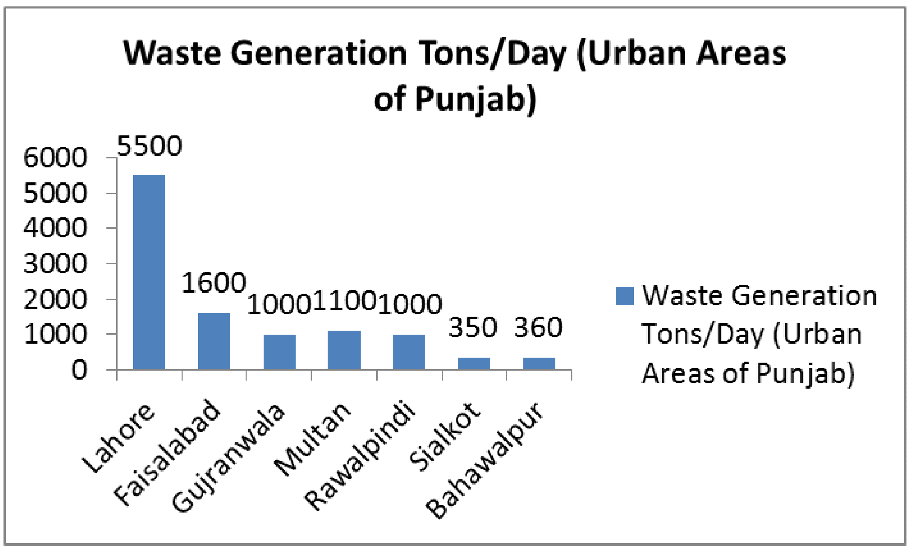
While SWM Companies will be responsible for service delivery in large cities, the remaining urban centers in Punjab desperately need additional resources and better management to overcome the crisis of solid waste, which causes large health and environmental hazards. The Government will provide machinery, equipment and training to TMAs in a systematic manner, through the Punjab Municipal Services Training Institute of the LG&CD Department and the technical support of the Punjab Municipal Development Fund Company (PMDFC) and the Lahore Waste Management Company.

Solid waste collection services by government in the cities of Punjab averages only 50 percent of waste generated. However, for cities to be relatively clean, at least 75 % of these quantities should be collected. Treatment and disposal technologies such as sanitary land filling, composting and incineration are comparatively new concepts in Pakistan. The aim of the government is to provide healthy and clean environment to the entire urban population of Punjab through improved solid waste management services.

1. Situation Analysis:

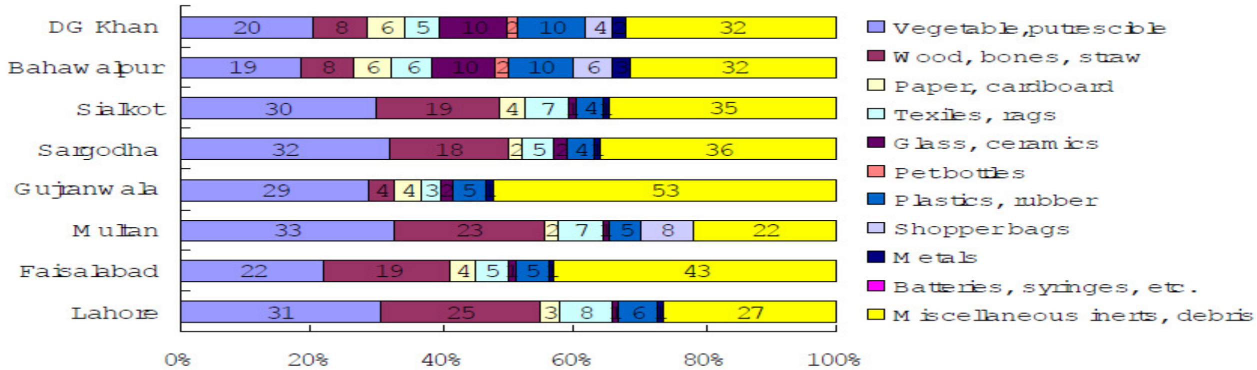
Solid Waste is a major environment and health hazard in the urban areas of Punjab. Cities economies are fast growing leading to rapid urbanization and changed consumption patterns driving up solid waste quantities causing unprecedented deterioration in the eco system.

It has been estimated that about 22600 tons of solid waste is generated in the Urban Punjab per day and the seven big cities generate 10910 tons of solid waste per day as shown in the fig below.



Source: Local Government Department

Solid waste in Punjab is generally composed of plastic and rubber, metal, paper and cardboard, textile waste, glass, food waste, animal waste, leaves, grass, straws and fodder, bones, wood, stones and fines to various extents. A typical distribution of waste fractions is given in the following Fig. This shows that organic materials account for more than a half of total waste even though the composition of waste changes from the point of generation to final disposal sites.

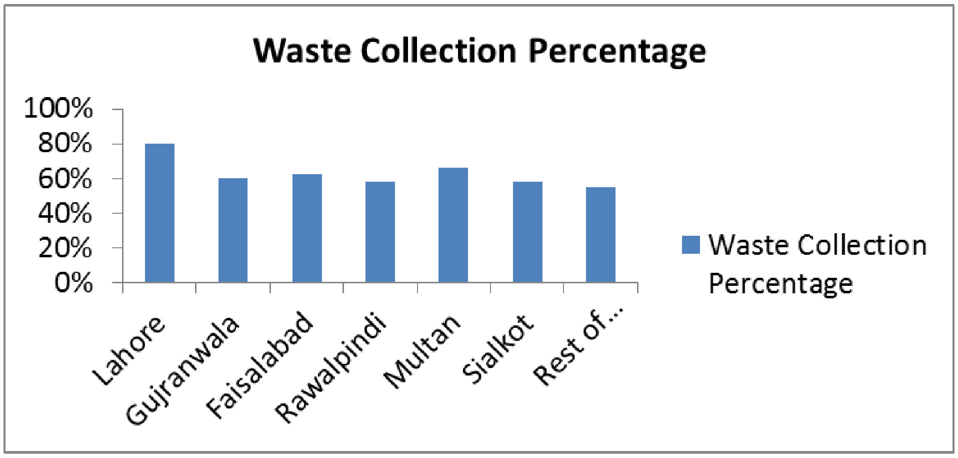


Source: Ernst Basler+Partber, Icepak, 2007, p.71
Note: *Year of sampling - Faisalabad 1996 / Lahore, Gujranwala, 2005 / Multan, DG Khan 2006 / Sargodha, Bhawalpur 2007; Data for Faisalabad is not available.

The responsibility of solid waste management rests basically with the municipalities. Traditionally, in Pakistan's large cities, the local government (now through waste management companies) collects waste from households in middle to high-income areas and is in charge of street sweeping. Solid waste collection services by government in Punjab's cities averages only 50 percent of waste generated; however, for cities to be relatively clean, at least 75 % of these quantities should be collected. The uncollected waste remains on street or road corners, open spaces and vacant plots, etc., polluting the environment continuously. The rate and amount of the waste collected in all the selected cities are given in the following table (JICA, 2005: 11-12).

In intermediate and small cities the available fleet for waste collection and transport typically is composed of handcarts, donkeys and bulla carts for primary collection; and open trucks, tractor/trolley systems, arm roll containers/trucks for secondary collection and transport. A number of municipalities have hired the sweepers and sanitary workers. Workers collect solid waste from small heaps and dustbins with the help of wheelbarrows and brooms, and store it at formal and informal depots and then carry out the sweeping of streets and roads.

The proportion of waste collected is much less in many other areas of the country, particularly in poorer areas, where the only means of solid waste disposal is often informal scavenging by people and animals, and local self-help for disposal to informal (technically illegal) dumping sites.



Source: LG&CD Department Punjab

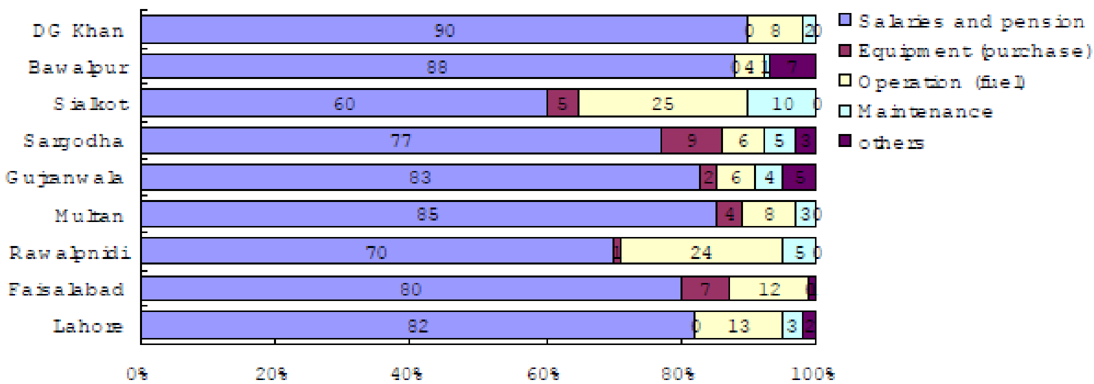
In fact, presently none of the municipalities have a formal recycling system in place. The mostly informal classification activities take place at various step of the cycle, from the source to the disposal site. What happens normally is that the main recyclable items such as paper, plastic glass and metals are retained by the people themselves, which are later sold to street hawkers or waste dealers for recycling.

Besides there being a great number of illegal dumping sites at any open space, the "official" disposal sites are far from being acceptable from an environmental point of view. Delivered garbage is dumped without any base protection from potential leachate infiltration into ground water, leachate collection and treatment nor collection and control or gas evacuation / flaring system – those being the minimum requirements for an acceptable practice. The presence waste pickers on the sites is hindering a more efficient operation of them and is critical from a public health perspective.

City	**Disposal Facility**
Lahore	Sanitary Landfill, Compost Plant, RDF Plant
Faisalabad	Open Dumping
Gujranwala	Open Dumping
Multan	Landfill Site (33% Of Waste), RDF Plant
Rawalpindi	Open Dumping
Chiniot	Landfill (Operational Issues)
Japalpur Pirwala	Landfill (Non Operational)
Rest of Punjab	**Open Dumping**

Treatment and disposal technologies such as sanitary land filling, composting and incineration are comparatively new concepts in Pakistan. Open dumping is the most common practice throughout Pakistan and dumpsites are commonly set on fire to reduce the volume of accumulating waste, hence adding to the air pollution caused by the uncovered dumped waste itself. The practice of sanitary land filling is still in its infancy in Pakistan and the first site has yet to be developed. At present, there are no landfill regulations or standards that provide a basis for compliance and monitoring, but national guidelines for these standards are being prepared by the consultant under the National Environmental Action Plan Support Program (NEAPSP).

Most municipalities do not levy the waste collection fee at proper level or charge very nominal amount. Therefore, direct cost recovery through user fee/charge is very low. Resultantly, the municipalities/TMAs /CDGs are not able to finance their activities as shown in the graph.



Source: Ernst Basler+Partber, Icepak, 2007, p.93.

To recapitulate the problems of the sector may be summarized as under:

- Lack of appropriate collection services
- Improper solid waste disposal facilities
- Poor institutional and financial arrangements
- Lack of reliable data for municipal waste management
- Challenges pertaining to the presence of scavengers
- Low level of public understanding and support

29. Vision:

"Provide healthy and clean environment to the entire urban population of Punjab through improved solid waste management services"

30. Objectives

- Provision of solid waste management services
- Collection of Transfer of solid waste from the urban areas of Punjab on scientific lines
- Environment friendly disposal of solid waste
- Capacity building of TMAs for provision of services
- Purchase of machinery and equipment for improved services

31. Sector Outcomes and Outputs:

The following indicators have been developed by the Local Government and Community Development Department for TMAs. As discussed earlier, the government has formed Waste Management companies in seven big cities. The get single line budget and prioritise their activities accordingly.

Outputs	Schemes and Projects	Responsible Agency	Targets	Medium Term Targets		
			2014-15	2015-16	2016-17	2017-18
Outcome 1:	**Enhanced Solid Waste collection and transfer ratios and system in urban areas**					
1.1 Improved efficiency in waste collection	1.1.1. Number of cities where Percentage of Municipal waste generators serviced by municipal collection as a percentage of total number of generators (coverage).	LG&CDD		50% (20 cities)	60% (20 cities)	70% (20 cities)
	1.1.2. Number of cities where Percentage of garbage/ waste collected against the estimate/amount of garbage produced	LG&CDD	50%	70% (20 Cities)	70% (20 Cities)	70% (20 Cities)
1.2 Improved solid waste transfer efficiency	1.2.1 Number of cities where residual waste reaching disposal sites as a percentage of total residual waste generation	LG&CDD	50%	70% (20 Cities)	70% (20 Cities)	70% (20 Cities)
	1.2.2 Number of cities where secondary collection points established for small and medium cities	LG&CDD	-	20	20	20
	1.2.3 Number of Cities to solicit public support to eliminate the illicit dumping of wastes.	LG&CDD	-	20	20	20

Outcome 2	**Improved Waste disposal System**					
2.1 Improved system in waste disposal	2.1.1 Number of cities where solid waste treated (SEGREGATION) before disposal (by degree of environmental protection) for small and medium cities	LG&CDD	-	20	20	20
	2.1.2 Percent of waste final disposed	LG&CDD	50%	70% (14 Cities)	70% (20 Cities)	70% (20 Cities)
	2.1.4 Number of cities where informal dump sites cleaned up	LG&CDD	-	14	10	20
	2.1.5 Number of cities where hospital hazardous waste shall be managed and disposed of	LG&CDD	-	30	30	40
2.2 Land Fill sites established	2.2.1 Land fill sites constructed in accordance with the standards for cities	LG&CDD	-	*14	10	20
	2.2.2 Percentage of waste disposed at land fil sites against the total waste collected for cities.	LG&CDD		75% (20 cities)	75% (20 cities)	75% (20 cities)
Outcome 3	**"Improved planning, monitoring and financial system for better and efficient service delivery"**					
3.1 Resource planning carried out	3.1.1 Number of cities for Reliable data collected for each category of the waste generators against total number of cities.	LG&CDD		30	35	40
	3.1.2 Number of cities with Master plans for solid waste management	LG&CDD		20	20	20
	3.1.3 Number of cities where MIS Developed for human and physical Resources available for SWM	LG&CDD		30	35	40
	3.1.4 Number of cities where market potential assessed and different compost qualities determined.	LG&CDD		10	10	10

	3.1.5 Number of cities where GIS based survey of waste generators and formal/informal landfill sites carried out	LG&CDD		30	35	40
	3.1.6 Number of cities where necessary equipment requirements assessed.	LG&CDD		20	20	20
	3.1.7 Number of seminars and conferences arranged on SWM initiatives (Divisional basis)	LG&CDD		9	9	9
3.2 Better Monitoring tools employed	3.2.1 Number of cities where Android based attendance system employed	LG&CDD		25	20	20
	3.2.2 Number of cities where community members involved for monitoring	LG&CDD		20	20	20
	3.2.3 Number of computerized complaint cell established	LG&CDD	105 (ensure proper functioning)			
	3.2.4 Standard performance evaluation indicators developed for sound SWM on localized basis for small and medium cities	LG&CDD	***105	30	35	40
3.3 Efficient financial system put in place for enhanced revenue collection	3.2.1 Number of cities where Unit cost for service calculated.	LG&CDD		20	30	30
	3.2.2 Number of cities where user charges introduced.	LG&CDD		20	20	20
	3.2.3 Number of cities where proper cost accounting system introduced for SWM activities.	LG&CDD		30	35	40

*Already created under PMSIP and SPBUSP
** Already plan to be piloted by PMDFC in 2014-15
***one indicator is already being tracked regarding solid waste disposal on monthly basis which will be continued in 2014-15.

More indicators are planned to be finalized after consultation with TMAs to track the progress of solid waste sector from 2015-16 onwards.

32. Programs, projects, expenditures to achieve Outcomes (*Expenditure program*)

(All cost in million rupees)

Name of Schemes	Responsible Agency	Provision for 2014-15	Projection for 2016	Projection for 2017	Projection for 2018
Outcome 1 & 2:	**Enhanced Solid Waste collection and transfer ratios and system in urban areas Improved Waste disposal System**				
Solid Waste Management Schemes under PMSIP- II	LG&CDD		1200	1200	1200
Outcome 3	**Improved planning, monitoring and financial system for better and efficient service delivery**				
Capacity Building Initiatives under PMSIP II	LG&CDD		75	75	50
*Piloting of Android Application, Unit Cost determination exercise & Community based Monitoring (planned by PMDFC)	LG&CDD		-	-	-
Total Cost	LG&CDD		1275	1275	1250

Note: Initiatives under PMSIP II will be managed through foreign funding

33. Policy reforms along with justifications

Sr. #	Policy Reforms	Justifications	Deadlines for target
1	Solid Waste Management Regulation Act	• Essential for the provision SWM rules which regulates and mitigates the adverse impacts associated with the uncontrolled generation and disposal of waste. • To promote integrated waste management strategies for sustainable economic growth, social development and environmental protection. • Solid waste management Regulation Act can lead to develop IRRC (Integrated Resource Recovery centers) for the betterment of waste recovery and recycling.	2014-2015
2	Rationalization of User fee	• Required for revenue generation to fulfill resources expenditure. • Important to minimize burden on government finances and to overcome expenditures of outsourced services. • Solid Waste department will be little independent through such capital generation.	2015-2016
3	Public Private Partnership for the SWM activities	• Important to incorporate the experts to improve existing system, identify the gaps and to design SWM system on technical basis. • Accommodation of Public sector is important for investment and to run the system on scientific basis. • Improvement of recycling, segregation, and waste to energy projects require public sector involvement.	Till 2017
4	Introduction of incentive system to take waste to official dump sites (e.g. payment of drivers according to amount	• Need to pay incentives as an attraction to work in a tough work environment as well as to ensure the completion of the task.	FY 2015-16

Sr. #	Policy Reforms	Justifications	Deadlines for target
	delivered).		
5	Explore revenue potentials in solid waste	• Recycling and waste to energy projects are highly profitable for revenue generation. • Integrated waste management system can lead to generate revenue potentials through, recycling of waste, segregation of waste at source, waste to energy projects and development of landfill sites. • User fee collection from commercial and residential areas.	2014-2015
6	IT based M&E mechanism	• To be updated with technical assistance of IT based system for proper collection, transportation and dumping of solid waste. • To minimize Gaps of manual handling of solid waste. • Android based attendance, VTMS, video wall establishment and computerized evaluation help to cater data compilation and record keeping issues.	need no deadline
7	Development of land fill sites	• Disposal of solid waste on scientific basis to minimize soil, air and water pollution. • Landfill site eventually help to establish waste to energy plants and treatment of waste which help in revenue generation and to treat waste. • Need to develop modern land fill sites at divisional level in intermediate cities.	2014-2015
8	Capacity building of local informal solid waste pickers	• It will help to incorporate scavengers in solid waste sector which will help in waste recycling and to compile data /record keeping of waste originally generate and being collected.	2015-2016

34. Institutional strengthening and capacity enhancement

I. Formation of Divisional Regulatory Authority for Solid Waste Management System under the Local Government and Community Development Department to strengthen the TMAs and provide necessary technical support.

II. Capacity enhancement of Local Bodies by LG & CDD through;
- Trainings of key officers in Lalamusa Academy
- Hands on trainings to support and field staff in Lalamusa Academy
- Introduction of **"Computerized Complaint Tracking System (CCTS)"**
- Implementation of **"Operation and Maintenance Framework"** for all municipal services
- Introduction of **"Computerized Performance Management System (CPMS)"**
- GIS mapping of city areas and disposal stations.
- Introduction of **"Computerized Financial Management System (CFMS)"** for accounting and budgeting

III. Provision of new machinery for each TMA

35. Organizational tools for achieving Outcomes and implementing programs:

Local Government & Community Development Department will achieve the required outcomes by entrusting the work to **"Punjab Municipal Development Fund Company (PMDFC)"** which is equipped with expertise and trained staff and over the last eight years it has performed these tasks in selected local bodies under a project captioned as "Punjab Municipal Services Improvement Project (PMSIP)" funded by World Bank.
The source of funding can be;

- Government of Punjab
- Donor Agencies
- Consultancy services rendered by PMDFC

36. Monitoring of Outcomes

Outcomes	Performance Targets and Indicators	Data Source and Reporting Mechanisms
Enhanced Solid Waste collection and transfer ratios and system in urban areas	Improved efficiency in waste collection Improved solid waste transfer efficiency	GOPb MICS Departmental Reports
Improved Waste	Improved system in waste	Various departmental and

disposal System	disposal Land Fill sites established	international agencies' reports GOPb Municipal Surveys Departmental Reports
Improved planning, monitoring and financial system for better and efficient service delivery	Resource planning carried out Better Monitoring tools employed Efficient financial system put in place for enhanced revenue collection	GOPb Municipal Surveys GOPb Service Delivery Surveys Departmental Reports

37. Review and Oversight committees

Planning and Development Board may provide the composition of the committees

URBAN TRANSPORT

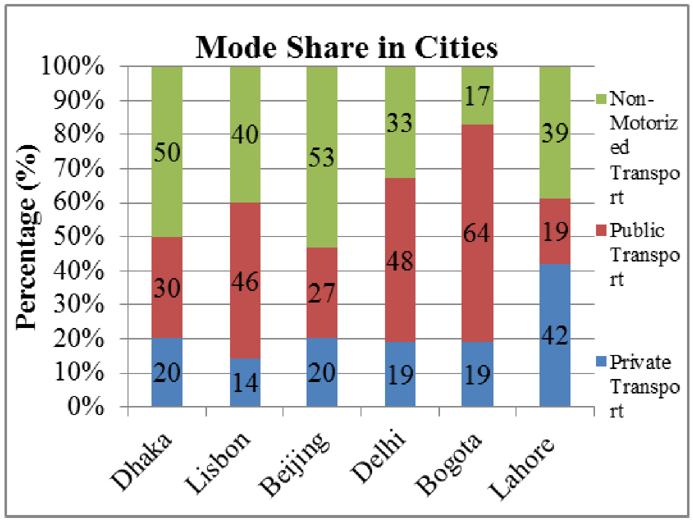
The demand for motorized urban transport facilities has increased tremendously in all expanding cities. With some exceptions, the present public transport comprises of low quality buses, mini busses, wagons and vans owned by individual operators. For lack of quality public transport, the use of private motorized transport is increasing on urban roads. It is estimated that the traffic in large cities is increasing at 12% per annum as compared to the national average of 8%. Car ownership has increased from 6 cars per thousand persons in 1998 to 13 in 2009. About 12 million trips are made on a usual weekday in Lahore, out of which 8.3 million are on motorized forms of transport

Urban transport in Punjab is one of the most important sectors facing extreme challenges due to rapid urbanization and motorization. The current public transport services suffer from inappropriate operation timetables, inefficient use of road space and poor condition of public transport facilities (including bus terminals and buses) due to the absence of proper government regulations. Nevertheless, the government is bent upon to increase the transport network in urban areas of Punjab especially in big cities.

1. Situation Analysis:

Economic and social development of any city is linked with the sufficiency of its transport network for strong, efficient and an affordable transport system is critical to good investment climate and a pre-condition to sustain the growth momentum and competitiveness. Particularly, public transport network connect people with their desired activity locations. In case of non-availability of accessibility and mobility means, people are considered socially excluded from the society.

Urban transport in Punjab is one of the most important sectors facing extreme challenges due to rapid urbanization and motorization. The astronomical vehicular traffic increase, without adequate management is becoming a serious problem and major cause of stress among the citizens and is one of the major causes of pollution in the cities. The number of registered vehicles in Punjab, from December 2002 to September 2006, increased from 2.6 million to 4.5 million, which is a growth of more than 10 percent a year. Lahore is one of the cities where public transport network is below tan 25% of the total mode of transport causing congestion, pollution, anxiety, and of course economic inefficiency.



The current public transport services suffer from inappropriate operation timetables, inefficient use of road space and poor condition of public transport facilities (including bus terminals and buses) due to the absence of proper government regulations. There are around 1,200 large size buses operating in Lahore, Multan, Gujranwala and Faisalabad. The number of passengers per vehicle for each city has been given below.

Population per Vehicle (HOV/LOV)

Population / HOV	District	Population / LOV	District
<= 20000	Lahore	<= 10000	Faisalabad, Gujranwala, DG Khan, Hafizabad, Narowal, Rawalpindi
20001 - 50000	Multan, Gujranwala	10001 - 50000	Multan, Sahiwal, Bahawalpur, Bhakkar, Khushab, Mianwali, Sheikhupura
50001 - 100000	None	50001 - 100000	Sargodha, Sialkot, Chakwal, Attock
100001 - 500000	Sialkot, Faisalabad, Rawalpindi	100001 - 1000000	Lodhran, Rahim Yar Khan, Gujrat
>= 500001	Bahawalpur	>= 1000001	Okara, Khanewal, Jhang

Most of the public transport is through overcrowded, poorly managed and rashly driven mini-buses and vans. There is a need to organize the public transport infrastructure, such as terminals, halting points and routes.

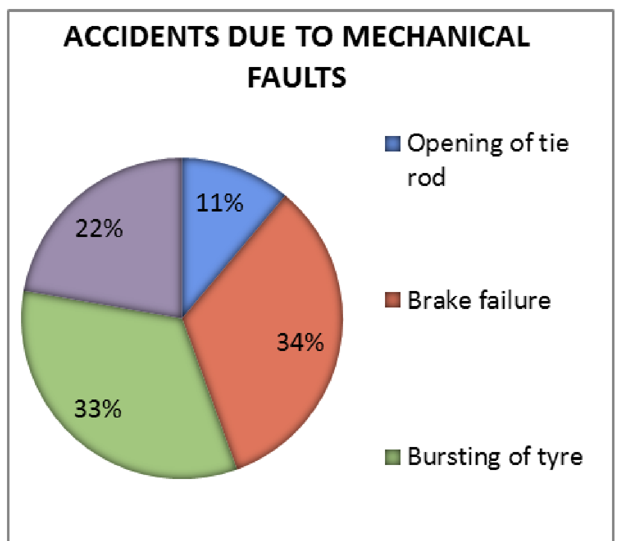
The following table shows the demand and supply gap in major cities of Punjab.

SUPPLY VS DEMAND GAP

City	CNG(D)	Diesel/Converted	Total	Shortage (Notified Route)	Req on VR
Lahore	404	90	494	385	235
Faisalabad	26	--	26	5	246
Rawalpindi	15	--	15	--	227
Multan	10	30/44	84	32	32
Gujranwala	12	82	94	44	55
Bahawalpur	5	--	5	7	--
Sialkot	20	--	20	--	--
Total	492	246	738	473	795

Total Buses Required	1268

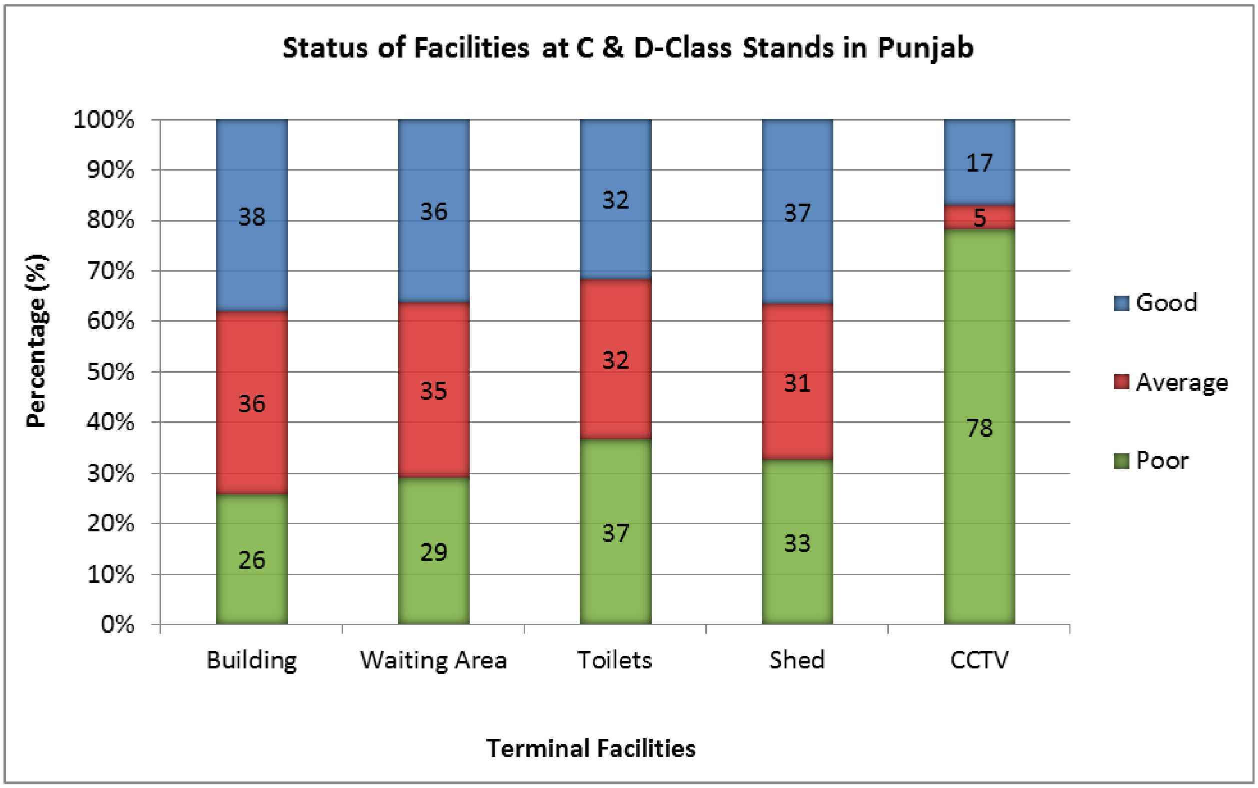
The estimated motor vehicle injuries in 2006 by the National Road Safety Secretariat, Ministry of Communications, and Government of Pakistan were about 2 Million, which showed that police was reporting less than 1% of all motor vehicle injuries. The regional comparison with other Asian countries revealed that the reported fatalities in Pakistan are 4.5 times less than that in other countries. The economic cost of road crashes and injuries is estimated to be over 100 billion rupees for Pakistan. However, the loss is more than just numbers, since road traffic injuries push many families more deeply into poverty by the loss of their bread-earners and inflict a tremendous continuous burden on the disabled victims and their families and on health care system. It is estimated that approximately 7,000 to 10,000 people die per year due to road traffic accidents. The number of fatality may be even higher because of an unsatisfactory system of reporting and follow-ups.



Source: Punjab Transport Department

The chart shows that most of the accidents occur due poor enforcement of the responsible agencies in the public sector.

The private sector runs a number of vehicle stands in all cities of Punjab. The enforcement capacity of the Government of Punjab decides the level of facilities in the Stands which is as follows.



The demand for urban transport facilities has increased manifold in all expanding cities in Punjab, while public transport has been of inadequate quality with a few exceptions. Due to lack of quality public transport, the use of private motorized transport is increasing on roads. Nevertheless, the government is bent upon to increase the transport network in urban areas of Punjab especially in big cities.

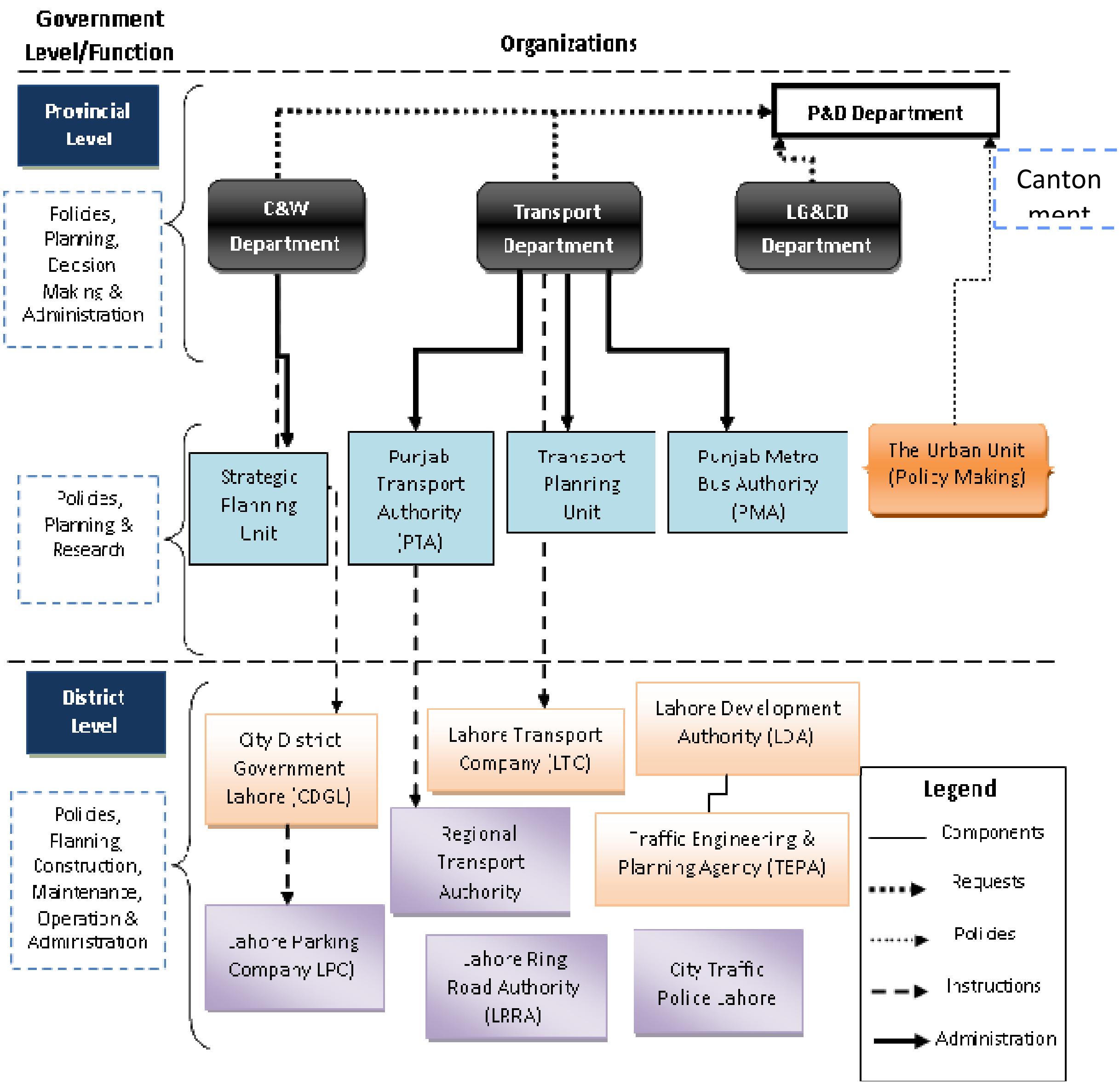
The following institutional arrangement of government of the Punjab is responsible to provide the adequate transport facilities to the people.

The Punjab Transport Department is responsible for public transport administration and policy making and planning in the province. It was established in 1987 under the West Pakistan Motor Vehicle Ordinance 1965. It is responsible for the licensing of public transport services outside of the major cities throughout the Provincial Transport Authority (PTA) and, by a statutory exemption, the licensing of bus service in large cities.

The District Road Transport Authority was set up in 2001 through a Notification issued by the Punjab Transport Department, and The Provincial Motor Vehicle Ordinance authorized it. The provincial Motor Vehicle (Amendment) ACT 2005 granted the PTA the power to award bus routes. The DRTA continues to issue route permits for minibuses.

The Government of the Punjab has established Punjab Metrobus Authority (PMA) for construction, operations and maintenance of mass transit system in Punjab.

Lahore Transport Company (LTC) is a wholly owned company of the Government of Punjab (Pakistan) registered under section 42 of Companies Ordinance 1984 to undertake or engage in such activities, negotiations ,contracts ,agreements and understandings which provide safe, affordable, reliable and efficient transport services for the general public in the city of Lahore.



The Government has also established a Transport Planning Unit housed in Transport House Lahore. The main objective of the Unit is to carryout research and planning to provide better transport facilities in the province.

38. Vision

"To provide safe, efficient and comfortable urban transportation system in the major cities of Punjab"

39. Objectives :

- Up-scaling Mass Transit System
- Affordable, accessible and integrated public transport network and services
- Enhancing road safety
- Institutional realignment and regulation
- Enhanced efficiency

40. Sector Outcomes and Outputs:

The Transport Department, Government of the Punjab, has converted their agenda of priorities, described above, into measureable and achievable targets in annual and medium term perspective in consultation with the attached departments.

Outputs	Activities/Indicators	Responsible Agency	Targets	Medium Term Targets		
			2014-15	2015-16	2016-17	2017-18
Outcome 1:	**"Improving accessibility by public transport"**					
1.1 New Mass Transit Networks developed.	1.1.1 Number of Mass Transit Networks developed	PMA	1	1	1	-
	1.1.2 Numbers of commuters benefitted from Metro Bus Service	PMA	135000	152000	Feasibility study in progress	
1.2 Improved capacity and quality of existing public transport system	1.2.1 Number of buses included in the existing fleet in Lahore	LTC	422+100=522	522+177= 699	699+125= 824	824+200 = 1024
	1.2.2 Number of buses per thousand population in Lahore	LTC	0.06	0.08	0.09	0.11
	1.2.3 Number of buses included in the existing fleet in other major cities (Fsd, Rwp, Multan, Guj, Sialkot, Bhawalpur)	Transport Department	-	125	150	200
	1.2.4 Number of Motor cycle rickshaws phased out	LTC	32649 Enrolled in Lahore	(Phasing out as per policy decision linked with increasing existing bus fleet to cater demand)		
1.3 Transit and travel facilities improved	1.3.1 Number of Intercity Bus Terminal to be developed	TD/ DRTAs/ CDGs	1	1	2	
	1.3.2 Number of Intercity Bus Terminals to be Improved	DRTAs/ CDGs	8	10	12	12
	1.3.3 Number of Intra-city Bus Terminal developed	LTC		1		
	1.3.4 Number of Public Transport Bus	LTC	166	250	250	310

Outputs	Activities/Indicators	Responsible Agency	Targets	Medium Term Targets		
			2014-15	2015-16	2016-17	2017-18
	stops, Bays and Bus Shelters Renovated in Lahore					
Outcome 2	**" Ensure safe journey for the commuters"**					
2.1 Transport vehicles checked for safe journey	2.1.1 Percentage of vehicles inspected and certified against the total vehicles	PTA/ DRTAs	43%	50%	60%	70%
	2.1.2 Number of complaint cells established	TD	Compliant desks to be established within the integrated facilitation management centers developed by PIBT GOPb			
	2.1.2 Reduced ratio in PSVs accidents due to mechanical failure against the base current year	TD/ PTA/ DRTAs	12%	10%	7%	Less then 5%
2.2 Enforcement mechanism Improved	2.2.1 Number of VICS compliance monitoring cells established	TD		1		
	2.2.2 Percentage of Stands having digital monitoring and regulation	PTA/ DRTAs	30%	50%	70%	100%
	2.2.3 Percentage of staff trained as against the total	TD/ PTA	24%	35%	50%	70%
	2.2.4 Provision of vehicles in district for checking and monitoring and vehicle inspections and route permits (2 vehicles/ district)	TD/ PTA/ DRTAs	10	20	21	21
	2.2.5 Plan for Vehicle inspection and certification system formulated	TD	1			
Outcome 3	**"Improve planning for public transport system and better regulatory and service delivery regime"**					
3.1 Improved planning for public transport system	3.1.1 Master Plan Studies for major cities of the province conducted	TPU	Gujranwala	Sialkot	Bahawalpu r	Sahiwal
	3.1.2 Number of Feasibility Studies/	TPU/ PMA	Gujranwala	Faisalabad/	Bahawalpu	

Outputs	Activities/Indicators	Responsible Agency	Targets	Medium Term Targets		
			2014-15	2015-16	2016-17	2017-18
	Route Planning and Realignment Studies of selected cities conducted		/ Sialkot (TPU) Rawalpindi (PMA)	Multan (PMA) Sargodha (TPU)	r/ Sahiwal (TPU)	
	3.1.3 Planning wing established in Lahore	TD	1			
	3.1.4 Planning wing established in each division headquarter	TD/ PTA/ Commissioner Office	Continuous	Continuous	Continuous	Continuous
	3.1.5 Zoning Policy Study for Establishment of Bus Terminals/ Stands conducted	TD/ TPU/ DRTAs	5 Districts	7 Districts	8 Districts	16 Districts
3.2 Improved regulations and service delivery	3.2.1 Percentage of beneficiaries of Computerization of PRTC pension data	TD/ PRTC		100%	100%	100%
	3.2.3 Number of cities where One Window Operation established for Issuance of Route Permits along Major Highways/ Motorway	TD/ PTA/ DRTAs	2 District	5 Districts	5 Districts	5 Districts
	3.2.4 Monitoring and control centers established in Transport department	TD	1			
	3.2.5 Punjab Transport Infrastructure Management System (Bus Terminals, Route Alignment, Intra-city public transport and journey planner)	TPU	50% (Online and Continuous Updating)	100%	Online and Continuous Updating	Online and Continuous
	3.2.6 Number of Districts where Transport Department Automation System Implemented	TD/ DRTAs	All 36 Districts			
	3.2.7 Replacing Obsolete ticketing	DRTAs/ PTA	5 Major	Remaining		

Outputs	Activities/Indicators	Responsible Agency	Targets	Medium Term Targets		
			2014-15	2015-16	2016-17	2017-18
	system in district by opening bank accounts		districts	31 districts		

41. Programs, projects, expenditures to achieve Outcomes (*Expenditure program*)

In this section only those initiatives have been reflected that would be financed from capital side of the budget or through development portfolio by the government (whether through local or foreign funding or even in the form of PPP projects). The activities, listed above, which need to be financed from the revenue side or from the current side of the provincial budget, have not been incorporated in this section.

Projects/Programmes	Responsible Agency	Funding Source	Budget Estimates 2015	Projection for 2016	Projection for 2017	Projection for 2018
			(Rupees in Million)			
Outcome 1:	**"Improving accessibility by public transport"**					
Transport Modeling and Feasibility Study for Mass Transit System in Rawal pindi, Multan and Faisalabad.	PMA	GOPb	20000 (Estimated for Rawalpindi part only)	37000	45000	
Number of buses included in the existing fleet in Lahore (20% upfront subsidy to be paid to operators for buses by GoPb under the existing model)	LTC	GOPb		354	250	400
Number of buses included in the existing fleet in major cities (20% upfront subsidy to be paid to operators for buses by GoPb under the existing model)	TD	GOPb		250	300	400
Intercity Bus Terminals to be developed	TD/DRTAs	PPP Mode		2500 M on PPP mode by Concessionaire	2000 M on PPP mode by Concessionai	

Projects/Programmes	Responsible Agency	Funding Source	Budget Estimates 2015	Projection for 2016	Projection for 2017	Projection for 2018
			(Rupees in Million)			
				750 M by Govt for outside infrastructure development	re 750 M by Govt for outside infrastructure development	
Construction of new General Bus Stand, Rahim Yar Khan	TD	GOPb	60.00	40.00		
Outcome 2	**“ Ensure safe journey for the commuters”**					
Establishment of Vehicle Inspection and Certification System in Punjab	TD	PPP (BOT)		200 by Concessionaire Govt to provide land on lease/ rental basis	700 by Concessionai re Govt to provide land on lease/ rental basis	100 by Concessionai re
Land Acquisition for Vehicle Inspection and Certification System	TD	GOPb	10			
Provision of vehicles in district for checking and monitoring and vehicle inspections and route permits (2 vehicles/ district)	TD	GOPb		120	50.4	50.4
Outcome 3	**“Improve planning for public transport system and better regulatory and service delivery regime”**					

Projects/Programmes	Responsible Agency	Funding Source	Budget Estimates 2015	Projection for 2016	Projection for 2017	Projection for 2018
			(Rupees in Million)			
Establishment of Transport Planning Unit for execution of Transport Master Plan, Public Transport Improvement and Route Planning Studies	TD	GOPb	39.00	37.53	38.00	38.00
Establishment of Monitoring Cell & Control Room at TD	TD	GOPb		10	10	10
Transport Data Automation System	TD	GOPb	110			

42. Policy reforms along with justifications

The following policy reforms have been planned by the Department to achieve the desired outcomes.

	Policy Reforms	Justification	Time line	Responsibility
1	Punjab Urban Transport Policy	Direction for future Investment priorities in Transport Sector	30th December, 2014	Transport Department
2	Draft Punjab Road Safety Act	Safety Guidelines for Public Service Vehicles	31st December, 2014	Transport Department
3	Review and Updating Motor Vehicle Rules 1969	Improved Regulations for effective Monitoring Especially inclusion of private vehicles inspection and certification	31st December, 2014	Transport Department
4	Revamping of Fee Collection system	Elimination of Pilferages, transparency and enhancement of Government revenue	31st December, 2014	Transport Department
5	Subsidizing public transport system	To encourage private sector investment as well keeping fares at affordable level	June 2015	Transport Department

43. Institutional strengthening and capacity enhancement

a. Establishment of Transport Planning Offices at District Level
b. Devolution of Department activities and enhanced role for Commissioners
c. Establishment of Monitoring Cell at Transport Department

44. Monitoring Framework for the Outcomes

Outcomes	Performance Targets and Indicators	Data Source and Reporting Mechanisms
Improving accessibility by public transport	New Mass Transit Networks developed. Improved capacity and quality of existing public transport system Transit and travel facilities improved	GOPb Service Delivery Surveys PSLM GOPb Service Delivery Surveys Various departmental and international agencies' reports
Ensure safe journey for the commuters	Transport vehicles checked for safe journey Enforcement mechanism Improved	Various departmental reports GOPb Service Delivery Surveys
Improve planning for public transport system and better regulatory and service delivery regime	Improved planning for public transport system Improved regulations and service delivery	GOPb Surveys; Third party reports GOPb Service Delivery Surveys

45. Review and Oversight committees

Planning and Development Board may provide the composition of the committees