



# TECHNICAL PAPER 12

## MUNICIPAL SERVICES



## 12. MUNICIPAL SERVICES

### 12.1 INTRODUCTION

Cities, often, are associated with higher incomes given their central role in innovation and job creation, amidst rapidly increasing economic and technological complexity. Sustainable economic growth is virtually impossible without the growth of cities. Globally, improving the competitiveness of cities is a pathway to eliminating extreme poverty and to promoting shared prosperity. According to a World Bank (2015) report, of the largest 750 cities in the world, three-quarters have grown faster than their national economies since the early 2000s<sup>1</sup>. Other than generating income and creating mass employment opportunities, cities are the agents of social, cultural, economic, technologic and political changes and advancement.

With 54 per cent of the world’s population, cities account for more than 80 per cent of global GDP. In virtually all cases, the contribution of urban areas to national income is greater than their share of national population.<sup>2</sup> For instance, Paris accounts for 16 per cent of the population of France, but generates 27 per cent of GDP<sup>3</sup>. Likewise, Kinshasa and Metro Manila account for 13 per cent and 12 per cent of the population of their respective countries, but generate 85 per cent and 47 per cent of the income of the democratic republic of Congo and Philippines, respectively.<sup>4</sup> The GDP contribution of global cities has been portrayed in **Figure 12.1**. Hence, in a nutshell, “Cities play a pivotal role as engines of growth for any economy.”

**Figure 12.1: GDP contribution of global cities**



<sup>1</sup> World Bank. 2015. “Competitive Cities for Jobs and Growth”. The World Bank Group

<sup>2</sup> United Nations (2016). “World Cities in 2016: Data Booklet”

<sup>3</sup> UN-HABITAT (2016). “Urbanization as a Transformative Force - World Cities Report 2016”

<sup>4</sup> *Ibid*

**Data Source: Oxford Economics, U.S. Census Bureau, and Moody’s Analytics**

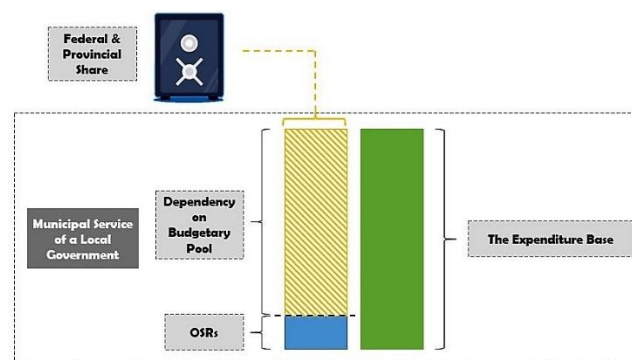
The core spatial strategy of PSS revolves around the identification of growth nodes and to plan investments around them with the broader objective of achieving high economic growth. And the provision of all municipal services and enabling all basic infrastructure in cities is the key to develop vibrant cities characterized by better way of living and quality of life.

Provision of these municipal services is the primary responsibility of the Municipal Government and ensuring the smooth access of the same through a self-sustainable framework is also included in the mandate of Municipal Government. Although the support from Provincial Government in terms of share from ADP receipts under PFC award and project specific grants like PCGIP grants, monsoon grants, etc. or federal transfers is part of the overall budgetary structure but the same should not be deemed to be the sole source of funds to bank upon for service delivery. Ideally, dependency on ADP share should be deemed to be the last resort for the Municipal Government after the development finance has been arranged through OSR structure and novel and untapped sources.

**“Five big cities<sup>5</sup> of Punjab, on average, generate OSRs that are usually less than 5% of the total City Receipts”<sup>6</sup>**

The current situation of the city financing framework has been portrayed in **Figure 12.2**. With varying level of dependencies, municipal services including water supply and sanitation, solid waste management, urban transportation, etc. is significantly dependent on the federal transfers and provincial share to support its operations and incur development expenditures for expansion and service delivery quality maintenance and almost none of them are in even breakeven position.

**Figure 12.2: Current city financing portrait in Punjab**



The above picture portrays that our cities are far behind compared to global city financing patterns as reflected in **Figure**

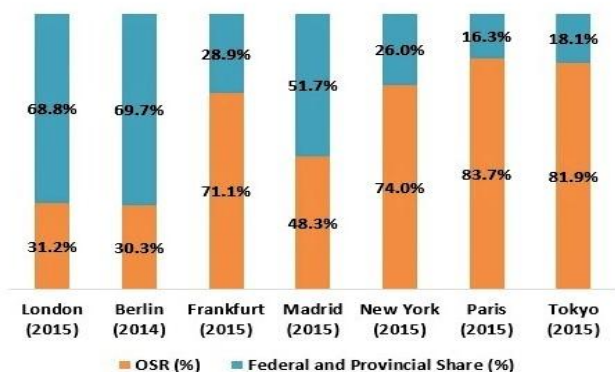
<sup>5</sup> Lahore, Faisalabad, Rawalpindi, Gujranwala and Multan

<sup>6</sup> Enhancement of Own Source Revenue in Five Large Cities of Punjab (PCGIP); Situation Analysis & Action Plans (Feb 2014)



12.3 which clearly depicts that a serious redressal measures are needed to balance out the financial dependency pattern been confronted in the local scenario, historically, which is expected to replicate in the future as well if status quo prevails.

**Figure 12.3: Global comparison of city financing patterns**



**Data Source: International Comparison of Global City Financing; A Report to the London Finance Commission by Enid Slack (Oct 2016)**

Accordingly, as part of the achievement of the over-arching objective of PSS, as mentioned above, the investment framework at municipal service level has been made the integral part of overall core strategy to make potential investment activities more rationale and justified in face of current and potential urbanization pattern (*growing population of existing citizens and migration of inhabitants from towns to intermediate cities/primary cities*). The underlying goal envisages strategizing possible target service delivery levels at municipal level and identification of new or untapped sources of finance to meet the same and to augment the existing municipal budgetary fund base.

Improvements and self-sustainability of water and sanitation, solid waste management and urban transportation have been envisioned in the overall **Sustainable Development Goals (SDGs)** which makes them even more crucial in face of exponential growth in urbanization in the coming years.

**Goal no. 6** of SDGs directs towards the need to ensure access to water and sanitation for all as water and sanitation directly impacts *human health, environmental sustainability and economic development*. **Target no. 11.2** of **Goal 11** places precise emphasis on provision of safe, affordable, accessible and sustainable transport systems for all as urban transportation is the basic mode of connectivity amongst local and national routes and highways and is the basic ingredient and driver for *community growth and revitalization*. Likewise, with an over-arching target of reducing per capita adverse environmental impact, solid waste management including waste collection and final discharge have been identified as core indicators in **target 11.6** of **Goal 11** as negligence in the same may leave negative impressions on land, environment, human health and climate

and may create *unsanitary conditions* thereby leading to pollution & outbreak of *vector-borne diseases*.

The entire discussion concludes down to the need for assessing the existing service delivery level; identifying the targeted level to be achieved for ensuring an improved service delivery network and identifying the financing framework to finance the same. The current demand for each of the five municipal service in face of the current service delivery level along with the targeted demand to meet the improved service delivery level for the next three decades has been given in **Figure 12.4** for five big cities.

**On average, the current water supply coverage in five big cities is 68% which is targeted at 95% over the next three decades. Likewise, sewerage and solid waste management average coverage is targeted to be uplifted from current 67% and 70% respectively to 95% each. Percentage population served by bus stops is envisaged to enhance from an average of 78% to 95%**

In an urge to meet the envisaged service delivery level as mentioned above, the demand surge is foreseen to be a challenge to catch up. As given in Figure 12.4, water demand shall be estimated to increase from current level of around 599 MGD<sup>7</sup> to estimated 2,131 MGD by 2047 which makes up around 3.5 times increase over the three decade period driven by population and targeted coverage increase in five big cities. Likewise waste tonnes per day is estimated to increase by around 3 times over the envisaged period (*from 10,800<sup>8</sup> to 33,660 tonnes a day*) driven by the same variables mentioned earlier. Daily ridership is expected to increase by 2.25 times (*4 million a day<sup>9</sup> to 9 million a day*) primarily driven by transportation utilization preference pattern and population increase.

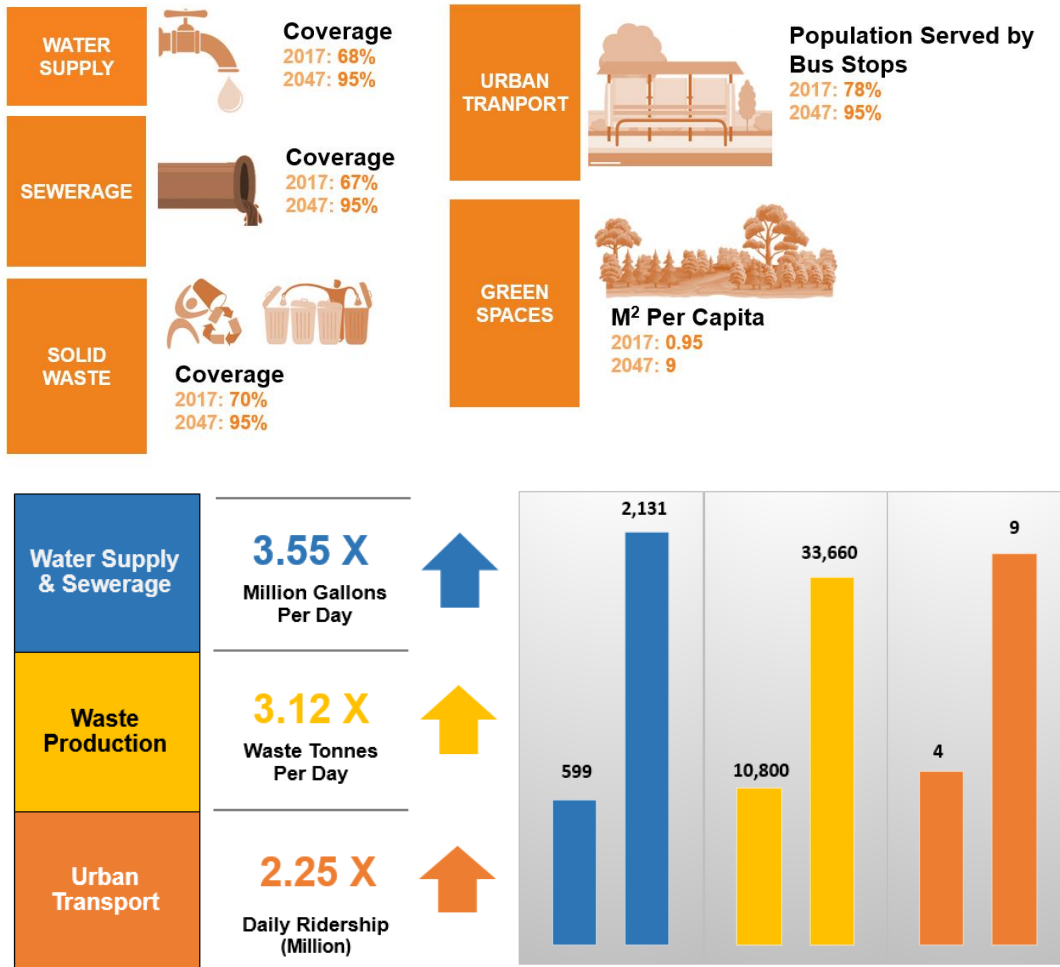
<sup>7</sup> Energy Audit Reports, PCGIP Project

<sup>8</sup> Waste Amount Characterization Survey (Urban Unit Team)

<sup>9</sup> Published Feasibility Studies by Osmani & Co. and data from PMA, Govt. of the Punjab



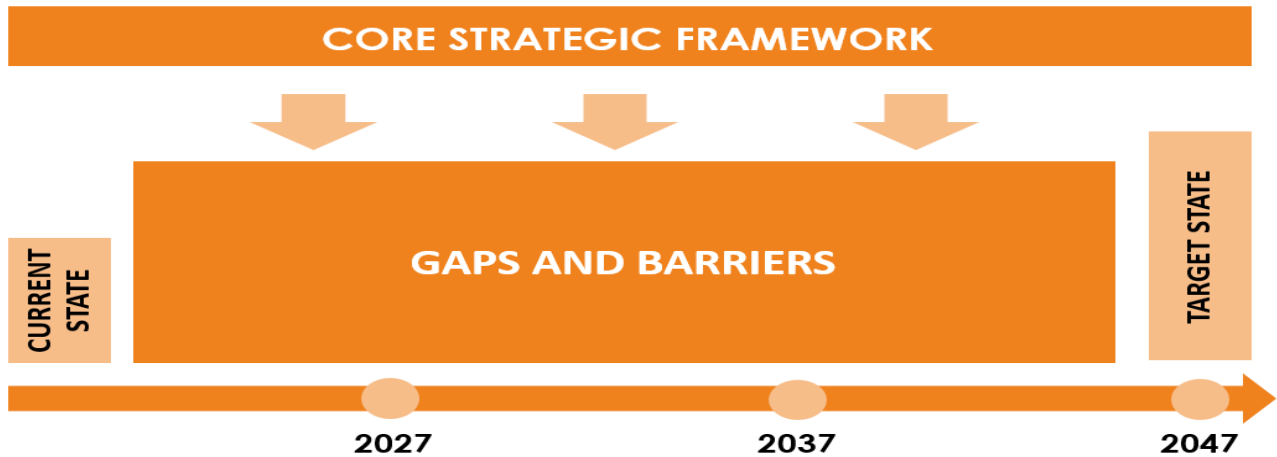
Figure 12.4: current demand for current service delivery level vs. Envisaged demand for targeted service delivery level - five big cities



Data Source: Urban Unit Analysis

Note: Coverage refers to average coverage for five big cities.

Figure 12.5 Municipal services - Core Strategic Framework





## 12.2 INSTITUTIONAL SETTING/ ARRANGEMENTS

Core strategic framework to address the institutional issues and to ensure the reign of good governance at the municipal service level include the following:

### Institutional jurisdiction overlapping

Multiple authorities exercise the control and try to influence the operations of municipal services. At present, the entities engaged in influencing the service provision are viz., Municipal Corporations, Development authorities, Cantonment Boards, Provincial departments and private entities. For instance, urban transportation for each city should be under the jurisdiction of Local Government of respective city but the same falls under Provincial Government ambit directly. Likewise, water supply and sewerage service is partly influenced by development authorities like Lahore Development Authority, Faisalabad Development Authority, etc., and partly by cantonment boards, private entities (housing societies) and Local Governments.

This overlapping creates administrative dichotomy which hampers the effective accountability and standardised delivery of municipal service across the city. An Institutional initiative is required to be taken whereby clarity in the reporting and control structure and mechanism should be delineated for each municipal service and the accountability should accordingly be ensured for each service delivery from respective authority.

### Principle of subsidiarity

Further administrative decentralization of municipal services down to union council level should conform to the principle of subsidiarity. However, to make this decentralization decision successful and workable, capacity building of existing responsible authorities (*further discussed later*) is mandatory to handle all the decentralized responsibilities in a smooth and effective fashion.

### Cities financial management (revenue planning and controlling)

The fact that the Municipal Government shall receive the share from the provincial share or federal transfers for running the operations or incurring the development expenditures of each respective municipal service has made the local governments complacent and less inclined towards developing and articulating the revenue generation planning and controlling system to come up

with the new and untapped revenue sources. The existing setup of receiving a percentage share periodically under PFC award hampers the initiative by relevant municipal service officials from devise and implementing a holistic revenue planning and controlling feature.

The solution is undoubtedly, a holistic financial policy. Setting up of a rigorous revenue generation plan and controlling system characterized by; identification of potential revenue sources, setting the revenue targets, developing action plans for achieving the same and controlling the same to measure results against the budgets; should be made mandatory for all local governments the non-compliance of which may be associated with the sanctions to ensure timely compliance.

### Linking HR promotion with training & performance

The incentive plans at local government and service delivery companies' level lack association with on-the-job performance of employees or skills' upgradation based upon any pertinent training attended. This results into lack of motivation for employees to perform better on-the-job with an urge to meet the service delivery targets. Likewise, they are less interested in getting novel training sessions necessary for their professional and technical skills' development.

There is a need to develop the performance appraisal system and to align HR promotion policies with this system so that the performance gets rewarded instead of mere seniority and traditional time-based promotion plan. This shall not only serve as an effective step towards improved service delivery but shall motivate the employees towards capacity development by inspiring them to take interest in relevant training sessions, conferences and workshops.

### Capacity constraints, lack of research and resource availability

Historically, the local government institutional setup was not in place and consequently, local government institutionalization was not sufficiently supported by adequate capacity and resource availability needed to discharge the designated municipal service in an effective and efficient way. Understaffing is one of the major issue of all the municipal entities in Punjab. Likewise, the requisite machinery for service delivery is either unavailable or the human resource was not/less capacitated to utilize the same which results into wastage of assets.

Moreover, there has always been the lack of research entities at the provincial or local government level that monitor and evaluate the existing scenario, perform situational analysis and proposes workable solutions to



impending problems like water shortage, SWM methods, etc.

**It is proposed that the government should formulate institutional structures divisional level such as Divisional Drinking Water Authorities, Divisional SWM Authorities, and Divisional Waste water Authorities and Divisional Transport Authorities. in the province with the following mandate:**

- **Capacity building of existing and potential local government human resources to discharge their duties and utilize the assets.**
- **Coordination among districts for economies of scale.**
- **Implementation of large scale projects**
- **Research & Development; monitoring activities.**
- **Proposing innovative financial and technical solutions for specific local problems**

#### **Corporate Governance and Involvement of Private Sector**

Modern organisational structures, based New Public Management Model for management of municipal services are being experienced successfully world wide. The same should be replicated in Punjab as well with strong regulatory frameworks.

#### **Outsourcing**

Focusing on core activities is important for the Municipal Governments to ensure accomplishment of intended objectives vis-à-vis serving in the public interest. Some non-core activities carry due weightage in municipal machinery but due to lack of expertise, should be outsourced to ensure effectiveness. For instance, Singapore Public Utility Board (PUB) outsourced public awareness campaigns and programs.

#### **Public Private Partnerships**

There exist several spheres in which private sector entities have achieved expertise and experience over the passage of time and are more effective and efficient in handling the same, even at macro level, than the government. Areas in which earning potential through efficiency in operations exists may be seen as a target potential area for involving the private sector companies for PPP model in compliance with PPP Act. Possibility of PPP model follows later in the document.

**The ballpark for PPP mode** is that the infrastructural setup to enable the municipal service provision should be the responsibility of Provincial/Local Government whereas the private sector should be engaged in running the operations and earning through user fee receipt as per

notified rate structure. This model is financially feasible for the engaged private company if the economic activity is of high volume to enable meeting the target profit of the engaged private company. Unfortunately, the lesser volume of economic activity, for instance, less density per km in public transport, etc. shall make the PPP mode financially not feasible for the private company as charging out the higher rates shall be against the public welfare standpoint of local government to provide the services at subsidized rate. Hence, lower level of service utilization and subsidized rate costs the local government the payment of subsidy (*the solution of which is proposed in the following section of 'Target Subsidy Model'*)

From the perspective of solid waste management, **earning potential lacks in the area of waste collection and transportation** on account of absence of tariff structure except for Lahore (as mentioned above as well). If some tariff structure is developed that enables the collectors and transporters to earn against the collection and transportation services, PPP model might be of consideration. However, currently, outsourced model is being used in Lahore and Rawalpindi whereas self-operating model is in use in Multan, Gujranwala and Faisalabad. Tendency of waste management companies is to shift towards the outsourced model on account of high cumulative capital cost involved in vehicle and machinery required to carry out the waste collection and transportation to managing and bearing the cost of repair and maintenance, fuel expenses and human resources.

On the lines of Waste concern (Bangladesh), PPP model, however, is workable at the disposal points through **Refuse Derived Fuel technology or compost plants** for segregation of municipal solid waste into combustible and non-combustible portions with combustible portion to be further burnt for to prepare an alternative for fuel.

#### **Outsourcing mode in self-sustainable fashion**

Outsourcing model has been adopted by engaging private parties for some municipal service delivery which is a more costly option in a longer run despite the fact that it helps managing temporary financial burden by systematically allocating huge aggregate capital cost over the life of assets involved therein. This also sets free the municipalities from managing or supervising the vehicles and human resources, for instance, in case of waste management companies. But it is noteworthy that private management has to be involved through some self-sustainable model. Self-sustainability in a phase-wise fashion is an advisable course.





## 12.3 SUSTAINABLE FINANCING FRAMEWORK

The proposed financing framework for operations envisages the following:

- Integrated Revenue Billing & Collection System
- Other Revenue Improvements Actions
- Addressing Operational Inefficiencies
- Novel and untapped financing sources

### 12.3.1. Integrated Revenue Billing & Collection System of All Property Based Taxes, Fees & User Charges

Currently, the problem of collection efficiency exists across the WASAs and municipal corporations whereby a significant gap exists between the amounts of bills collected against the bills issued. Collection efficiency in terms of number of bills in WASAs (five big cities) is shown in Figure 12.8. The chart shows that, on average, the collection efficiency stays at around 50%. Improvement in collection efficiency, eradication of bad debts and controlling the rising arrears is reasonably estimated to contribute handsome cash flows towards the OSR base over next three decades in five big cities.

Improvements in collection efficiency through **integrated billing and revenue collection system of all property based taxes, fees and user charges involving lumping up of all property related taxes, fees and user charges into a single bill and collecting the same through single workforce is envisaged as a plausible revenue enhancement strategy**. This shall not only reduce the cost of collection, but shall improve the collection efficiency as well, since it is generally presumed that if the collection agency is relatively distanced from the tax payers, it improves compliance. This reform is all the more important in the near future, where locally elected public representatives would be in-charge of the local affairs. Improving their own source revenue would also improve their service delivery, as there would be less dependence on the vertical transfers.

This would not amount to taking over of the functions of the local entities by the ET & NC Department but partnership between the department and the local bodies for this specialized function so that the collection of overall local fee and user charges may optimally increase. Since almost all of these levies (Water rate, Sewerage & Drainage rate, Urban immovable property tax, Board rates, Shop rents for local council properties, etc.) are property related, there is a case for lumping all these together and generate just one bill. Amongst all these agencies, the Directorate General of Excise and Taxation, which despite

being a provincial body, collects the UIPT, which is essentially a local tax, is the most suited and most capacitated to perform this integrated function.

It may be mentioned that DG Excise & taxation has the most authentic database of urban properties. In addition, once all the rates would be recorded with the DG E&T, these would be automatically added as an encumbrance on the property and would need to be cleared, before getting a PT-1<sup>10</sup> issued thus enhancing the compliance by property owners.

**At present, the UIPT bill is generated once a year (though theoretically it's a six monthly tax), while most of the user charges are monthly, bimonthly or quarterly. There is a need to make all these bills, including UIPT as a bimonthly bill, thus generating 6 bills in a year, to reduce the cost of bill distribution.** Since the system would be fully computerized across Punjab in a year's time, this bill printing would be very swift and automated. The facility of self-printing by the customers from the website may also be enabled vis-à-vis.

Moreover, to improve the revenue collection and administration, following areas are critical to focus:

- Billing and collection – How the billing and collection is done?
- Inducing payments, i.e., penalties and fines or incentives to ensure payments;
- Awareness campaigns, i.e., directed towards encouraging voluntary compliance amongst general public as to how the fees and user charges and their payments in time will be of help to the inhabitants in raising their standard of living and that it is unjustified if some people don't pay their obligations.

### 12.3.2. Other Revenue Improvements Actions

Strategizing of improvements in existing revenue streams associated with municipal services can result in enhanced OSR base the discussion on which follows hereunder.

#### Volumetric charge against water consumption

Current water based tariff rates are area based (plot size based), i.e., non-volume based which results in undercharging against water consumption as volume of water consumption per house is not reasonable to be inferred from plot size. Implementation of **water rates based on volumetric charge** shall make the tariff structure not only more rational and justified but shall also render addition to the revenue base.

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<sup>10</sup> Format Title of UIPT Bill



This action shall require **100% metering** to enable measurement of consumption by each domestic unit, i.e., household. Implementation of 100% target has to be done in phases as abrupt step would not be pragmatic to manage. Implementation is proposed to be made in pilot areas with follow-up testing and results' evaluation prior to extending towards remaining areas and regions.

Making **metering a mandatory requirement** shall reduce resistance towards metering as pre-requisite of make the charge on volumetric basis. Attaching sanctions for non-compliance shall help catalyse the metering activity at the mass-scale level.

#### **SWM– introduction of tariff structure**

SWM services are currently being rendered without any charge collected against the same. Significant dependency on grants and subsidies exist to finance the solid waste management operations as currently, waste collection and disposal is not charged from public through any tariff/fee structure like other municipal services. In Metropolitan Corporation Lahore, however, tariff rate on per Marla basis is collected as part of WASA bill which is way negligible to support SWM operations. Although this is in addition to specified waste collection contracts executed by SWM Lahore for solid waste management but both contribute negligibly towards the revenue base.

**Introduction of tariff structure to recover waste collection and disposal related cost shall enable coverage of operational expenses in a self-sustainable way.**

**The tariff structure against SWM has to be structured in line with the nature of waste collection system in place at Punjab level.** Tariff structure has to be devised in a fashion that it doesn't interfere with the day-to day operations of waste collection on disposal and accommodates fee collection from within the existing operational setup. Since, current waste collection system involves collection of waste from containers situated at public places, the fee cannot easily be attributed straight away to each household unit.

The feasible variable to which the tariff may be attached might be the mass, volume or weight of waste generated. But measuring the waste production at household level is not possible as collection at the point of generation doesn't take place. Hence, in the given scenario, the fee has to be based on measurable data of waste generated in terms of mass, weight or volume. The stage of weighing the waste generated shall determine the tariff structure against waste management.

There are three possibilities of weighing the aggregate municipal waste generated.

- Measuring the waste by weighing the collection vehicle at the disposal site.
- Measuring the mass of waste from single collection bins which requires a bit more effort.
- Measuring the quantity of waste disposed of by different users (e.g. residents of a multi-storey building) into a single bins. This not only causes highest effort of all but also intervenes with the existing waste collection system.

Hence, in the light of given situation, on the assumption of 100% waste collection coverage, measuring the waste at the disposal site (*forming total waste generation by whole municipality*) seems to be the most feasible option. The aggregate waste so weighed may then be allocated to smaller pre-identified land-markings within the municipality on some basis like number of residents within the boundary, area of boundary, or the value of the properties in that boundary. The same may then be bifurcated amongst household units based on, for instance, household size, floor space, or the value of the property, etc. Tariff may then be aligned with tonnage of wastage associated with each household unit.

Importantly, administrative arrangements shall have to be made regarding levying and collection responsibility of the solid waste fee.

#### **Targeted subsidy model – urban transportation**

In countries like Pakistan where *density per kilometre* is not attractive for the private companies to resort solely on fare rates, calls for intervention and contributions from the provincial governments in terms of subsidy (or additional cost) per kilometre to enable private companies (in terms of guaranteed payment per kilometre) to earn the envisaged (proposed) profit. To date, the expansion in metropolitans and cities in Pakistan have been more horizontal than vertical which makes it less enticing as a revenue source. Countries with cities enduring vertical development bear the earning potential for the private companies to earn higher per kilometre and cover a substantial part of their operational cost and may even earns profit streams (like, Hong Kong) from the same.

Currently, **outsourced model** is being followed across the cities in Pakistan with varied financial modalities. Mostly, guaranteed payment per kilometre is being offered to enable private contractors to achieve their profit targets. Sustainability of the urban transportation can be ensured financially by switching the fare rates from pro-poor (subsidized) to pro-rich however, the same shall then shatter the social picture and welfare responsibility of the





government and may cause the public transportation users to switch to other parallel modes which shall ultimately again affect the revenue structure of public transportation.

**The targeted subsidy model – the solution. Offering subsidy across the franchise, though, is an advantageous step from the public welfare standpoint but hampers the sustainability objective at governmental level, especially of a developing country. Subsidies in the urban transportation be made age-focused with the highest subsidy be available for senior citizens and students.**

**Harnessing the leasing potential of unused land**  
**Leasing potential of the land within the ownership boundary of WASAs** can be assessed for their ability to be handed over on lease to private companies. WASA Multan identified its land area on Gulgash Road and leased the same to Pizza Hutt against periodic rentals. Lease rentals against usage of unused land from private sector shall again serve as the additional source of revenue for Municipal Government.

Through GIS application, owned land premises may be line-marked and assessed for their being strategic in terms of their location to evaluate the potential for their being leased. Feasibility planning for each strategically located land should be prepared prior to getting tenders and initiating lease contracts with potential private sector companies

#### **Revamping UIPT system for additional revenue base**

Property tax serves as a key component to support the city revenue base for financing municipal services. It is estimated that property tax provides for, on average, around 2% of GDP of Organization of Economic Cooperation and Development (OECD) countries<sup>11</sup>. Developing countries, on average, are able to generate property tax of around 0.6% of their GDP<sup>12</sup>. In the context of Punjab, based on the data of 2017-18, it is estimated that property tax demand makes up only around 0.2% of the GDP of entire Punjab<sup>13</sup> which is even lower than developing countries' average.

<sup>11</sup> [www.data.oecd.org/tax/tax-on-property.htm](http://www.data.oecd.org/tax/tax-on-property.htm) - OECD (2018), Tax on property (indicator) (Accessed on 24 August 2018)

<sup>12</sup> Property Tax Reform in Developing Countries; Presentation to Fourth IMF-Japan High-Level Tax Conference for Asian Countries Tokyo, April 3, 2013 by Enid Slack (Institute on Municipal Finance and Governance University of Toronto)

<sup>13</sup> Based on working over data obtained from Punjab Bureau of Statistics (PBS), Economic Survey of Pakistan 2017-18, Punjab Economic Report by Punjab Economic Research Institute (PERI) and UIPT Punjab data (The Urban Unit)

Tax demand for fiscal year 2017-18 has been estimated to be Rs. 13.7 Billion for Punjab with an average property tax of Rs. 3,373 per property unit<sup>14</sup>. In contrast, Ahmedabad Municipal Corporation alone managed to collect 7.98 Billion Indian Rupees (*PKR equivalent of around 14.6 Billion*) during the year 2017-18<sup>15</sup> which crosses the figure of Punjab. Municipal Corporation Delhi managed to collect property tax revenue of 16.4 Billion Indian Rupees (*PKR equivalent of around 28.7 Billion*).<sup>16</sup> Mumbai was able to collect over Rs. 50 Billion (*PKR equivalent of around 90 Billion*) during the same period.<sup>17</sup>

A closer insight into the existing UIPT system in Punjab reveals that it still bears a handsome potential to generate additional revenue to support city finance base through reasonable and justified revision.

Currently, apart from Category A, residential properties from all categories up to 5 marla are exempt from tax. Around 67% of the residential units are 5 marla units, i.e., 1.6 million out of 2.5 million residential units. Analysis shows that if these exempt units are brought into tax base, 84% more revenue shall yield to the existing revenue base from residential units every year, i.e., from Rs. 2.85 Billion to Rs. 5.23 Billion.

Moreover, valuation rate assigned to owner-occupied properties as per valuation table for Punjab is much lower, i.e., five times, in Punjab than instances from parallel economies. For instance, in case of Delhi and Ahmedabad Municipal Corporation, owner-occupied properties are valued only 2 times lower than rented properties for the purpose of calculating property tax<sup>18</sup>. The same may be considered as an additional source of revenue through justified scenario analysis.

#### **12.3.3. Addressing Operational Inefficiencies including non-revenue water (NRW) into OSR base**

Conversion of NRW into revenue Water in a **phase-wise fashion** cannot be achieved without cooperation and willingness from the **top and staff empowerment and motivation**. The same cannot be achieved without cooperation and willingness from the top and staff

<sup>14</sup> Urban Unit Analysis

<sup>15</sup> [www.dnaindia.com/ahmedabad/report-amc-property-tax-income-falls-4-to-rs-799-cr-2599910](http://www.dnaindia.com/ahmedabad/report-amc-property-tax-income-falls-4-to-rs-799-cr-2599910)

<sup>16</sup> Daily Pioneer, Times of India

<sup>17</sup> [www.hindustantimes.com/mumbai-news/mumbai-civic-body-collects-record-rs5-150-crore-property-taxes-in-1-year/story-6QKAFSEuO5AQFty1OVYUBO.html](http://www.hindustantimes.com/mumbai-news/mumbai-civic-body-collects-record-rs5-150-crore-property-taxes-in-1-year/story-6QKAFSEuO5AQFty1OVYUBO.html)

<sup>18</sup> [www.myloancare.in/tax/property-tax/property-tax-in-delhi-mcd/](http://www.myloancare.in/tax/property-tax/property-tax-in-delhi-mcd/)  
[www.ahmedabadcity.gov.in/portal/jsp/Static\\_pages/assessment\\_tax\\_static.jsp](http://www.ahmedabadcity.gov.in/portal/jsp/Static_pages/assessment_tax_static.jsp)



empowerment and motivation. **Unaccounted-For-Water (UFW) was pulled down from 70% to less than 5% within 15 years in Cambodia** (Phnom Penh) and the steps they took through institutional changes to reduce NRW is worth-quoting here.

*“... Not only were the staff members demoralized, but they had a good reason to be demoralized as they were faced with poor governance, below subsistence pay, lack of discipline, absence of any incentives, and pervasive corruption. Lethargy, poor working practices, and a “could not care less” attitude to its consumers were the norm. Therefore, the work culture had to be radically changed by enforcing strict disciplines in a sensitive, fair, and transparent manner. This was a difficult task since the rest of the public sector employees in Cambodia were in a similar situation and behaved in a very similar manner. Changing institutional culture was not an easy task. It had to start with the senior officers who had to become the role models. During the 1980s and early 1990s, one of the perks of the job was employees of PPWSA received free supply of water. This practice was stopped. Staff members not only had to install meters but also had to pay their water bills in full, like any other citizen, and within the stipulated time period.”<sup>19</sup>*

Moreover, provision for **conditional assessment of below-the-ground assets** is required in the periodic budgets and standard operating procedures are required to be developed to undertake such assessment to identify the areas and assets where repair and maintenance activity is required to gain control over line losses.

#### Consumer survey

Units that are consuming network water but are unregistered and hence, unbilled are needed to be reduced. Illegal connections contribute to reduced revenue base across the cities. Based on simple exponential growth model of population, in five big cities.

Under PCGIP project, **consumer surveys** are currently being held in five big cities as mentioned above and one of the project deliverables include identification of illegal connections and data collection to a substantial level has been done that shall assist in not only potential metering activity but also estimating the untapped revenue base. The similar activity is proposed to be initiated in other cities of Punjab as well to make water and sewerage facility self-sustainable and less dependent on provincial pool of funds. **Consumer survey activity shall envisage identification of number of units (domestic and commercial) that are unregistered currently which shall**

<sup>19</sup> Good Practices in Urban Water Management (Decoding Good Practices for a Successful Future); Edited by Anand Chiplunkar, Kallidaikurichi Seetharam, Cheon Kheong Tan (ADB Report)

**serve as an input in metering plan as well.** The consumer survey being a work force intensive activity calls for hiring consumer survey teams and requires incurring of human resource costs, the again has to be made in the budget to ensure carrying on the survey as suggested.

#### Energy Conservation Practices

Identification of **potential areas for energy conservation through quantification of energy savings using energy audit findings** and subsequent implementation of the proposed strategies to ensure the savings is a financially burden-shredding strategy on the municipal budgetary pool. Through PCGIP project, potential areas for energy conservation were identified and quantification of energy savings through implementation of energy audit findings was done in water and sanitation sector by The Urban Unit in collaboration with The World Bank. **Implementation of the same is expected to contribute Rs. 890 million per annum<sup>20</sup> for five big cities** thereby contribute to reducing operational expenses and enhancing the revenue to expense ratio.

**The similar activity in other cities of Punjab** followed by energy conservation practices is expected to yield surprising financial returns and cost savings.

#### 12 3.4. Novel and untapped financing sources

The Municipal Government might not be in a position to implement every possible source of development finance on account of some possible intervention or mismatch with national and provincial regulations. The possible criteria of proposing and adopting the untapped source of finance is to opt for those sources which:

1. Require beneficiaries of service to bear the onus; and
2. Were historically unutilized as a potential capital source to augment municipal finance base.

#### Climate Finance

Climate finance as the source of additional finance requires awareness programs, especially in the environment and solid waste management sector to invoke the criteria and basis on which the carbon, green or climate finance can be obtained from **international climate finance funds** pooled to help developing countries in reducing carbon emissions and harnessing the solid waste for conversion into fuel.

Open dumping of waste involves the setback of inability to measure the reduction of carbon emissions and waste reduction. In addition to establishing compost plants on the grounds of Waste Concern (*Bangladesh*) or Lahore

<sup>20</sup> Energy Audit Reports, PCGIP



Compost Facility, an effective substitute is the establishment of **regional Landfill sites** whereby each region can be assigned one landfill site with the ability to **measure the extent of carbon control** and hence, earn carbon credits. Landfill sites can serve as the effective base of claiming the climate finance by envisaging the planned reductions in carbon emissions supported by mechanism to measure emission and/or reduction in emissions. The provision for Landfill site for each city has to be included in the upcoming ADP.

**Waste segregation and recycling facility** on the footings of Sahiwal can be planned aiming to get one step ahead of the concept of landfill sites with an overarching objective of diverting waste from landfill for improving the use of resources and reducing the environmental impacts of waste management.

In addition, **Refuse Derived Fuel facility** can be used as another way of segregating the total municipal waste generated into combustible and non-combustible portions and using the combustible portions for burning as an alternative for coal.

#### Land value capture (LVC)

The increase in value of surrounding property resulting from infrastructural developments by municipal governments, companies and government agencies are currently being capitalized by owners of those properties in terms of high capital gains at the time of disposal or high ARV in case of renting the property. In face of the non-existence of the concept of LVC in Pakistan at the moment, possibilities in terms of various areas are needed to be analyzed to propose a workable policy in this regard.

#### Developments qualified for LVC

Various natures and categories of development contribute towards enhancement of value of associated properties. The degree of effect, however, varies depending upon the importance placed on each one of them in their contribution towards overall infrastructural skeleton. In reality, addition of each infrastructural facility adds to the value of the associated properties but with varied amounts including *urban transportation and municipal road development* (mass transit and municipal roads) may be regarded as primary determinants and drivers of Land value capture model in the local scenario. Depending upon the topography and geographical presence of an area, however, utilities, for instance, might be of even a higher value than connectivity elements.

#### Payees

An important question to address, in case the deliberations begin to tap in the LVC concept is to decide that **who shall be paying for the increase in value?** *The*

*most relevant individuals to be charged are the land and property owners of the whereabouts of relevant urban development as they are the direct beneficiaries of the property value enhancements via potential capital value or APV increase.* The questions of how and when has been discussed hereunder.

#### Timing, frequency, method and collection of charge

**Timing:** LVC involves capturing the value either before or after the envisaged infrastructural development. In the context of Pakistan, on account of lack of clarity, concreteness and tangibility of the proposed infrastructural development, collecting the charge beforehand to finance the envisioned infrastructural development might wake up the reluctance from the ultimate payers. They shall more be willing and inclined to pay for something that they could see built or even in construction phase. It is, therefore, more prudent to capture the actually increased value, i.e., post-development levy approach.

**Frequency and Method:** Two primary models exist in respect of levy and collection of charges on account of LVC, i.e., levy one-time or on continuous basis after lapse of each pre-defined period. Most common application of one-time (lump sum) charge/payment involves taxing the gains at the time of sale/purchase of property. The rate of charge/tax on account of increased value can be built-in into capital gain tax at the time of sale and purchase. The risk involved in the same shall be that the seller shall inflate the prices to transfer the burden on account of LVC to the buyers which shall inflate the prices of property in the market. To counter the same, tax on gains at the time of sale/purchase may partially be collected from the buyer. This shall hinder the seller to inflate the price at the time of sale based on LVC tax as the burden is being shared by both parties to the transaction. This shall weaken the seller's argument of suffering with additional levy as the other party to the transaction shall also be levied with the tax for what he, apparently, didn't get any direct benefit.

Second method is making the levy as part of any existing periodic collection practice of tax, fee or user charges, for instance, property tax. This periodic LVC levy shall be mutually exclusive with one-time levy since charging the person who has already paid periodically shall not be justified. However, measures shall be required to ensure that the financial impact of ongoing payments and that of one-time levy should be the same for which the slab-wise working shall be required.

All property units, i.e., domestic, commercial and industrial are proposed to be subjected to the LVC tax in accordance with the slab rates proposed for each property unit which shall certainly vary as per existing norms of charging units



under, for instance, UIPT. Tariff structure based on plot size is proposed to be most realistic and justified.

**Collection:** As mentioned above, LVC tax may either be collected periodically as part of existing collection practice of any other tax, fee or user charges (in case levy is to be made periodically); or it may be collected one-time, probably, along with capital gain tax (in case levy is to be made one-off). Hence, to ensure collection efficiency in case of periodic payment, the same may also be collected as part of utilities but again there exists chances of resistance in the same.