

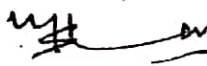
Municipal Corporation Jhang

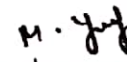
Punjab Cities Program

Year-1 (2019-20)

Name of Scheme : Rehabilitation of Municipal Services
Infrastructure in Jhang City

General Abstract of Cost				
Sr. No	Group Name	Description	Estimated Cost Rs.	Estimated Cost Rs. Million
1	A	Rehabilitation Works	47,524,000	47.524
2	B	Repair Works	50,882,774	50.883
3	C	Supply Items	9,498,431	9.498
		Total	107,905,205	107.905


SUB ENGINEER
MUNICIPAL CORPORATION
JHANG


SUB ENGINEER
MUNICIPAL CORPORATION
JHANG


SUB ENGINEER
MUNICIPAL CORPORATION
JHANG


MUNICIPAL OFFICER (I&S)
MUNICIPAL CORPORATION
JHANG

Local Government & Community Development Department



Punjab Cities Program

PC-I Form

For

Rehabilitation of Municipal Services

Infrastructure in Jhang City

Estimates Cost 107.905 Million PKR

January 2020

Municipal Corporation Jhang

Punjab Cities Program

PC-I Form for Rehabilitation of Municipal Services Infrastructure Project in Jhang City

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PC-I FORM
for
**Rehabilitation of Municipal Services Infrastructure project in
Jhang City**

Project Serial Number

Sector : Local Government & Community Development Department
Sub Sector: Social

Name of the project	Punjab Cities Program Rehabilitation of municipal services infrastructure Project in Jhang city	
Location	The city of Jhang is situated at 72°-20' East and 31°-16' north at a distance of 92 km from Faisalabad, and 252 km from Lahore. The city is located on the east bank of Chenab River. Location map of the city is attached in Annexure-A	
Authorities responsible for		
Sponsoring	Government of the Punjab (through World Bank funding)	
Execution	Municipal Corporation Jhang	
Operation and Maintenance	Municipal Corporation Jhang	
Concerned Provincial Department	Local Government and Community Development Department Punjab	
Plan Provision		
If the project is included in medium term/five year plan, specify actual allocation	Punjab Cities Program (PCP) is a World Bank funded Program with a total cost of 236.00 million USD and comprises of below mentioned components.	
	Total loan from World Bank	200.00 million USD
	Component-1 Infrastructure development (PforR)	180.00 million USD
	Component-2 Technical Assistance	20.00 million USD
	MCs share (20% of PforR component) equivalent to:	36.00 million USD
	Total Program cost	236.00 million USD
	Component-2 i-e Technical Assistance component of Program costing 20.00 million USD is meant for management cost of the Program and capacity building of MCs & Government Departments and is included in the medium	

	term/ five year plan and has been funded now in ADP 2019-20 under General Serial No-2731 with allocation of PKR 140.00 million as foreign component.
If not included in the current plan, what warrants its inclusion and how it is now proposed to be accommodated	Not applicable
If the project is proposed to be financed out of block provision indicate.	The Project is being financed by World Bank as Donor along with 20% co-financing from the Program Municipal Committees and is not proposed to be financed out of Block Allocation.
Provision in the current year PSDP/ADP	Rs.140.00 million under ADP 2019-20 General Serial No 2731 for Component-2 of the Program i-e Technical Assistance as described above.
Project objectives and its relationship with sector objectives	<p><u>Sector Objectives</u> The sector objectives include:</p> <ol style="list-style-type: none"> 1. Provision of efficient and effective municipality services to the masses. 2. Community development through improving basic infrastructure. 3. Clean and green environment for better living standards. 4. Effective use of land through master planning of urban areas. 5. Social uplifting and cohesion through provision of public open spaces and play grounds. 6. Efficient funeral and burial services. 7. Ease in mobility and communication. 8. Cost efficient Solid Waste Management through waste to energy initiatives. 9. Capacity building of Local Governments. <p><u>Objectives of the Project</u> The Program aims at improvement of infrastructure of municipal services such as water supply, sewerage, solid waste management, roads, street lights and parks etc. for improved municipal service delivery.</p> <p>The Project being taken up in the 1st year of the Program i-e 2019-20, comprise of the Maintenance, Repair and Replacement of old, outlived, damaged or worn out components in existing infrastructure for:</p>

1. Improvement of service delivery level of the municipal services mentioned above in the served areas of the city for provision of better basic urban services for improved livability of the citizen.
2. Reduction in annual O&M charges of the infrastructure due to reduced repairs in the forthcoming years because of repair or replacement of infrastructure components.
3. Reduction and prompt addressal of the public complaints regarding municipal service delivery.
4. Reduction in surcharging and overflowing of sewers thus reducing waste water ponding.
5. Improved solid waste management of the city.
6. Better lit roads and streets adding to security of people travelling at night.
7. Improvement in environments of the city making them livable.
8. Improvement in local and province economy.
9. Improvement in the economic growth potential of the city.

Hence, the objectives of the project are in line with the sector objectives mentioned at Sr. No-1, 2, 3, 5, 7, 8 & 9 above and the project forms integral part of the concerned sector.

6. Description, justification, technical parameters and technology transfer aspects

i. Present Condition

As per PLGA-12019 Urban Local Governments (ULGs) are basically and wholly responsible for delivery of the municipal services with a service delivery level which should satisfy the consumers and citizen. Unfortunately the prevalent conditions of the service delivery are not encouraging in the city. The major reason of unsatisfactory service delivery is the lack of proper maintenance of the municipal infrastructure in all sectors causing consumer dissatisfaction at one end and degradation of the infrastructure on the other end apart from very low revenue recovery as the consumers are reluctant to pay because of deteriorated service delivery.

Municipal services infrastructure has been degraded because of improper repairs and non-replacement of the old, outlived and damaged components due to shortage of money and constrained municipal budgets. If these components are not rehabilitated or replaced at this stage the services may reach a point where major portion of the infrastructure may have to be closed due to maloperation.

The only way to keep these services operational is to provide the required rehabilitation and replacement of components through this rehabilitation project to address the major deficiencies and shortcomings of the systems which have been prioritized as per dire need of the city.

ii. Description of the subproject-

Punjab Cities Program funded by World Bank is being implemented in 16 cities of Punjab and comprises of two main components as below. The Program has been designed by World Bank in collaboration with PMDFC and the main features of the Program as per its design, are given below;

A. Program Components

Punjab Cities Program comprises of two components as given below:

I. Component-1 Improvement of the services infrastructure

This is the major component of Program costing Rs 216.00 million USD (Loan from WB = 180 million USD plus 20% MC's co-financing equivalent to 36 million USD). The loan component will trickle down from World Bank to Finance Department Government of the Punjab and then to municipalities in the form of Performance Based Grants (PBGs). These PBGs will be used by MC for improvement and extension of the municipal services infrastructure for raising the service delivery to a satisfactory level.

II. Component No-2 - Institutional Strengthening of MCs and Provincial Government departments

This component costing 20 million USD, comprise of the capacity building of MCs, LG & CD Department, Punjab Local Government Board and PFC unit of Finance Department and management of the Program through PMDFC. The money will be used for Program management, hiring of experts and consultants required for design and implementation of interventions to be introduced in MCs and for planning, design and supervision of the infrastructure projects. The capacity interventions include:

- Integrated Development and Asset Management Planning
- Budgeting, Financial Management and Audit, Accountability,
- Transparency, and Complaint Handling.
- Monitoring Service Delivery Outcomes.
- Procurement and Contract Management.
- Own-Source Revenue Mobilization and Administration and:
- Infrastructure Delivery and Maintenance and Environmental and Social Management.

Through this component the capacity of LG & CD Department, Finance Department (PFC Unit) and Punjab Local Government Board will also be enhanced for better monitoring and governance of the Program and release of PBGs in timely and effective manner for smooth sailing of the Program.

B. Details of the component No-1 "Improvement of the services infrastructure

For accessing PBGs, MC will be required to achieve two Disbursement Linked Indicators (DLIs) as given below:

1. DLI-1 Achieving the Minimum Access Conditions (MACs) (Annexure-B)

- For achieving this DLI, MC will have to meet certain Minimum Access Conditions (MACs). The total amount of PBGs available under this DLI is 45.00 million USD which will be distributed to the 16 MCs in 5 years as per their PFC share.
- If the MCs does not meet any of the MACs, then it will not qualify for PBGs under this DLI.

2. DLI-2 Compliance with Performance Measures (PMs) (Annexure-C)

- Certain Performance Measures have been prescribed for compliance by the MC. The total amount of disbursement under this DLI will be 135.00 million USD which will be distributed to the Program MCs in 4 years starting from Year-2 (20120-21) of the program. For achieving this DLI, MC will have to earn some prescribed score (total score = 100). The minimum score required to be earned each year by MC for achieving this DLI is given below.
- If MCs does not meet all of the MACs, it will also not qualify for PBGs under DLI-2 although it may have earned the prescribed minimum score for PMs.
- If MC has qualified for DLI-1 and has also earned the minimum prescribed or more score under DLI-2, it will be allocated the PBGs under DLI-2 as per score earned by the MC.

3. Minimum requirements for achieving the DLI-1 & DLI-2

The minimum requirements for the MC for qualifying for PBGs is given below; (PBG allocations in million USD)

		Year-1	Year-2	Year-3	Year-4	Year-5	Total
DLI 1	Target Result	All participating MCs have achieved the requisite MAC every year					
	Allocation for 16 MCs	10.00	10.00	10.00	10.00	5.00	45.00
DLI 2	Target Results	-	40 points	50 points	60 points	70 points	
	Allocation for 16 MCs	-	35.00	40.00	45.00	15.00	135.00
Total allocations for 16 MCs		10.00	45.00	50.00	55.00	20.00	180.00
Total MC Share for 16 MCs (equivalent to)		2.00	9.00	10.00	11.00	4.00	36.00

Total	12.00	54.00	60.00	66.00	24.00	216.00
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4. Total allocation of PBGs for each MC

The amount of PBGs under DLI-1 and DLI-2 will be totaled out to arrive at the total amount of PBGs to be disbursed to MC every year.

5. Use of the Performance Based Grants (PBGs) by MCs

The PBGs will be used for the following purposes:

- Rehabilitation of the municipal infrastructure components in Year-1 of the Program
- Extension of the municipal services infrastructure to unserved areas of the city.

6. Menu of the eligible Activities

As per World Bank Guidelines, sub projects related to the under mentioned municipal services can be included for execution.

- Water supply systems
- Sewerage systems including waste water treatment facilities, sludge ponds, community septic tanks, vacuum trucks, vacuum handcarts, storm water drainage and flood control systems and others related structures.
- Solid waste management system including primary, and secondary collection, bins, transfer stations, collection points and transportation machinery & equipment.
- Street and security lights
- Urban Roads, pedestrian walkways and bicycle paths, road signs, culverts, bridges, underpasses and bypasses.
- Parks, urban greenery and public spaces.
- Urban social and economic infrastructure.
- Any other service within MC mandate provided in PLGA, and agreed with the World Bank.

7. Annual Performance assessment of MCs

MC will be assessed annually against the above given DLIs through an independent Annual Performance Assessment (APA) agency to be appointed by LG & CD Department. The assessment results will be communicated to Program Steering Committee and World Bank simultaneously who may verify the results at their own or through another agency and will announce the final assessment results. Based on these results the allocation of the MC will be worked out and announced by World Bank every year.

The World Bank will release these funds to the Finance Department who

within one month, will release the funds to the MC. The annual allocation for Year-1 (2019-20) have already been released to this MC. The annual allocations for Year-2 to Year-5 of the Program will be released to the MC by June each year.

8. Program Steering Committee (PSC)

An Interdepartmental Program Steering Committee has been constituted by Government of Punjab with under mentioned membership;

- Chairman P&D - Chairman
- Secretary Planning and Development Department- Member
- Secretary Finance Department -Member
- Secretary LG&CD Department - Member
- Secretary HUD & PHE Department - Member
- Secretary Environment Department - Member
- Managing Director PMDFC/ Program. Director – Member & Secretary to PSC
- Any other member co-opted by the Committee.

The PSC will be responsible to review and verify APA reports, address any crosscutting technical issues and challenges in Operation of the Program, review progress reports and provide guidance.

9. Budgeting and accounting of PBGs

The PBGs released to the MC and its accounting system is given below:

- All funds expected to be released to MC along with 20% co-finance will be depicted in MC's annual budget under the head of "PCP Development."
- Separate and dedicated account has been opened by MC and all funds will be released by FD in this account.
- MC will also deposit 20% share in this dedicated account.
- Separate accounts will be maintained for PCP funds by MC
- The procurement of works and goods for this projects will be made as per PPRA Rules.
- The accounting of the expenditure will be done as per MC's accounting system
- The pre-audit of the expenditure will be done as per usual practices prevalent in MC.
- The post-audit of the expenditure will be done by Auditor General of Pakistan as per existing practice.

10. Planning and implementation of the Projects.

Punjab Municipal Development Fund Company will be responsible for assistance to MC for execution of the project. It will also be responsible for hiring of the consultants for sectoral planning, detailed design and resident supervision of these projects. The Company will also monitor the progress of the projects and will communicate with all MC, LG & CD Department and World Bank for this purpose.

11. First year (2019-20) Projects

As already stated, the Program design calls for the planning and execution of the projects pertaining to rehabilitation of municipal infrastructure in Year-1. The identification and selection of these projects has been carried out as per below given procedure:

a) *Updating of services descriptive maps*

The descriptive maps of the municipal services infrastructure were updated by MC with the help of PMDFC staff by:

- Obtaining the information about the infrastructure components on formats designed by PMDFC Experts.
- Obtaining the information about existing, recently constructed and ongoing features of water supply and sewerage systems from PHD Department and plotting them on the existing maps.
- Visit of PMDFC teams to MC for physical verification of the data obtained and the features plotted on maps for refining the updated maps.

b) *Situation & gap analysis and Energy Audit*

- Situation analysis of all the services infrastructure by MC was done with the help of PMDFC experts.
- Gap analysis was derived from the situation analysis and the problems and shortcomings in the infrastructure, limitations and bottlenecks faced by the MC staff in operation of the services and reasons for the unsatisfactory service delivery were identified.
- Energy Audit of all the equipment and machinery consuming electrical, gas and fuel energy has been got conducted by World Bank through PITCO which also has identified the inefficient and high energy consuming infrastructure components needing repairs or replacements.

c) *Priority list of the works and cost estimation*

- List of works required to improve the infrastructure efficiency and reduce the energy consumption was framed and then prioritized as per needs of the city and their urgency. ;
- Services wherein the works are required to be undertaken for improving the infrastructure efficiency are given below:

- i. Water supply
- ii. Sewerage and drainage
- iii. Urban roads
- iv. Solid waste management
- v. Street lights
- vi. Parks and green spaces

- The list was scrutinized by PMDFC in the context of the needs of the infrastructure, importance and urgency in the present circumstances.
- The priority list was cleared by World Bank under the light of gap analysis and the Energy Audit.
- Cost estimation has been done according to the prevalent MRS rates and market rates.

Detail of civil works, equipment & machinery and other physical facilities

The detail of repairs and replacements included under this project is given below;

S.N.	Sector	Repairs and replacements included
1	Sewerage or drainage	<ul style="list-style-type: none"> • Rehabilitation or replacement of sullage pumping units with allied electrical and mechanical works. • Rehabilitation of civil works like pump houses, collecting tanks, screening chambers, approach roads, sullage carriers, force mains, discharge boxes etc. • Rehabilitation or replacement of screen and penstocks. • Rehabilitation of manholes and replacement of manhole covers and base frames • Provision of desilting winches for collecting tanks and sewers • Provision of back hoes for desilting of sullage carriers. • Replacement of totally damaged or choked sewer pipe lines. • Rehabilitation or construction of gulley grating chambers. • Rehabilitation of jetting and sucker machines

	2	Solid waste management	<ul style="list-style-type: none"> • Rehabilitation of solid waste transportation machinery and vehicles like tractors, trolleys, arm rolls, compactor trucks, mini tippers, containers, frond end loaders, front blade tractors, hand carts and other allied equipment. • Rehabilitation of mechanical sweepers, water bowsers and other street cleaning equipment. • Replacement of tires and batteries of vehicles.
	3	Street lights	<ul style="list-style-type: none"> • Replacement of all sodium light, mercury lights and energy savers by LED luminaries. • Rehabilitation and replacement of light brackets, control panels and other light accessories. • Installation of light poles where it is unavoidable. • Installation of photo electric switches for operation of lights.
indicate governess issues of the sector relevant to the project and strategy to resolve them	<p>Rehabilitation of roads and allied structures have not been included in first year as water supply or sewerage lines may have to be laid on these roads which will only be established after sector planning and detailed design of these projects.</p> <ul style="list-style-type: none"> • Municipal Corporation Jhang is facing acute shortage of staff. The smooth sailing of the Punjab Cities Program can only be assured when the required staff is available with MC. • The Operation and maintenance of the municipal services in not up to the mark in the MCs. Trainings will be imparted by PMDFC to the officers as well as the field staff under the Program but practicing the interventions and method/procedures learnt in these trainings is the actual requirement in which MC is lacking at present. Hence inculcating the mind set for good operation and maintenance is the major requirement for improving the service delivery level. 		

Capital Cost of project

The summary of the works included in the project is given below;

Head No.	Description	Cost in million PKR
1	Solid Waste Management	15.492
2	Sewerage system	58.764
3	Street Light	21.255
	Total Work outlay	95.511
	Contingencies @ 2%	1.731
	Punjab Sales Tax @ 5%	2.642
	Punjab Sales Tax @ 16%	6.827
	Horticulture @ 1%	0.955
	Public awareness @ 0.25%	0.239
	Grand Total	107.905

Indicate date of estimation of the project cost

The project estimates have been framed during the month of December, 2019.

Basis of determining the estimates be provided.

The cost estimates have been framed on the basis of bill of quantities actually measured at site and unit rates from the Market Rate System (MRS) issued by the Government of Punjab (District Jhang 2nd biannual of year 2019). For items not available in the MRS, the same have been analyzed as per prevailing market rates.

Provide year wise estimation of physical activities

The physical and financial requirements, year wise are included in the following table:

S. #	Items of work	Year 2019-20	Year 2020-21
1	Sewerage System	60%	40%
2	Solid waste management	60%	40%
3	Street lights	60%	40%

iv- Phasing of capital cost on the basis of each item of work.

The phasing of capital cost of the project is included in the following table:
(All figures are in million rupees)

Head No.	Description	Total Cost	Year 2019-20	Year 2020-21
1	Solid Waste Management	15.492	9.2952	6.1968
2	Sewerage system	58.764	35.2584	23.5056
3	Street Light	21.255	12.753	8.502
	Total Work outlay	95.511	57.3066	38.2044
	Contingencies @ 2%	1.731	1.0386	0.6924
	Punjab Sales Tax @ 5%	2.642	1.5852	1.0568
	Punjab Sales Tax @ 16%	6.827	4.0962	2.7308
	Horticulture @ 1%	0.955	0.573	0.382
	Public awareness @ 0.25%	0.239	0.1434	0.0956
	Grand Total	107.905	64.743	43.162

8-Annual recurrent cost after completion of the project and source of financing

The services are already being maintained and operated by the municipal committee out of its own financial resources. No additional cost will be required after completion of the rehabilitation or replacement of the components. However the efficiency of the infrastructure and service delivery level will be improved after completion of the rehabilitation projects.

9- Demand & Supply Analysis

i- Existing Capacity of services

B. Existing supply level

- Municipal Corporation Jhang is unable to render satisfactory service to the entire area of the city because of degraded infrastructure wherein some rehabilitation and replacement are direly needed but MC could not be able to accomplish them because of low revenue recovery and funding constraints. Very few areas are reasonably served but others are deprived of the required level of the service. This is resulting in low credibility of the municipal services and citizen dissatisfaction. Further the municipal infrastructure has not been developed and extended keeping in pace with the growth of population mainly due to migration from rural areas to urban areas. The market prices of the materials and labor have also increased drastically during the last decade which increased the O&M cost of services. This has further degraded the situation and the service delivery level is further deteriorating.

<p>- Projected Demand for 10 years</p>	<ul style="list-style-type: none"> • The municipal services requires radical improvement to enhance the efficiency of the service to increase service delivery to a satisfactory level. For this purpose the existing municipal infrastructure will have to be improved. • Many shortcomings, problems and bottlenecks have been observed in the existing infrastructure which could not be addressed by MC due to funding constraints and now have been proposed to be addressed by rehabilitation of defective and outlived components of all the municipal services infrastructure. • The demand for improvement is projected to be very high and rehabilitation projects are being launched in the current financial year to plug the gaps. However the funding in the present year is not adequate to address all shortcomings and hence the remaining works of rehabilitation will be taken in hand in the next financial year.
<p>i- Capacity of other similar projects being implemented in public/private sector</p>	<p>No other project of this nature is being implemented in public as well as private sector. However MC is trying to keep the services in operation with bare minimum repairs/replacements because of funding constrains.</p>
<p>- Supply and Demand gaps</p>	<p>The nature of supply and demand gap has been explained in the preceding paras which concludes;</p> <ul style="list-style-type: none"> • The existing infrastructure has poor efficiency resulting in unsatisfactory service delivery level. • The O&M cost of the municipal services is very high because of low efficiency of the services infrastructure and high market rates while there in a large gap between the O&M expenditure and the revenue recovery. • Large subsidies are being injected by MC to the keep the services in operation • Numerous public complaints are the talk of the day. • Unsatisfactory municipal delivery is not encouraging the city to become engines of economic growth and hence the GDP of our city is much lower than the peers in the developing world. • Hence there is a large gap between the supply and demand which is to be bridged by improvement in the municipal infrastructure and its management.

Designed capacity and output of the project

Investments have been proposed for improvement of the existing infrastructure in Year-1 of the Program which will result in the under mentioned outputs;

- The waste water pumping capacity of existing disposal works will be brought to the level of its design capacity for which the pumping units will be rehabilitated or replaced along with repair of the existing civil works.
- The choked, semi choked or damaged sewers will be rehabilitated by desilting of sewers and collecting tanks and some sewers may have to be replaced for this purpose.
- Damaged and missing manholes covers and base frames will be replaced.
- The waste collection and transportation machinery and equipment will be rehabilitated to increase the efficiency of waste disposal.
- The damaged and non-functional street lights will be rehabilitated and will be replaced by much more efficient LED lights. The existing high wattage lights will also be replaced by low wattage LED lights.

The resurfacing or rehabilitation of urban roads have not been included in the project for Year-1 of the Program because some of these roads may need laying of water supply and sewer pipe lines which can only be established after sectoral planning and detailed design of services infrastructure.

J. Financial Plan
Sources of financing

ebt

Indicate the local and foreign debt Loan

The below given loan for the Punjab Cities Program has been funded by World Bank for 16 PCP cities in Punjab.

Total loan to Government of Pakistan/Punjab	200 million USD
Component-1 for Infrastructure Development	180 million USD
Component-2 for Investment Project Financing For capacity building of MCs & three Govt. organization and program management.	20 million USD
20% share of Municipalities is equivalent to	36 million USD
Total funds available for Infrastructure Development	216 million USD

) Equity

A. Loan/grant to MC

The amount of loan converted to grant to MC168.631 for the year 2019-20 and total funds available with MC are given below;

Grant to MC for the year 2019-20	PKR 140.526 million
20% Co-finance by MC	PKR 28.105 million
Total available funds for 2019-20	PKR 168.631 million

B. Project Cost 108.185 million PKR

*The loan is from World Bank to Government of Pakistan/Punjab which will trickle down to MC as grant.

) Grants	No grant is being given by Government of Punjab out of ADP funds. The World Bank loan to Government of Pakistan/Punjab will trickle down as grant to MC from Government of Punjab.
) Weighted cost of capital	Nil

1-Project benefits and analysis

Financial: Income to the project with assumption	<ul style="list-style-type: none"> • The project comprises of Rehabilitation and Replacements of components of the existing Municipal Infrastructure to improve the service delivery of all municipal services. Presently the recovery from user charges is very low because of unsatisfactory service delivery but with improvement of service delivery the revenue recovery will also improve. • MC is proposed to levy user charges on the services not presently being charged such as solid waste and waste water disposal which should increase the income form the project. • However it is a social sector project and the capital cost of the project is not intended to be recovered. The user charges will be recovered from the consumers for meeting the operation and maintenance charges of the services and to lower down the heavy subsidies being injected by MC presently to keep the services in operation.
i. Social benefits to the target group	<p>The completion of the project will result in:</p> <ul style="list-style-type: none"> • Up gradation of the municipal services infrastructure. • Increase in efficiency of all infrastructure components • Improved service delivery level • Enhanced design life of the components. <p>This in turn will result in below given social benefits to the target group:</p> <ul style="list-style-type: none"> • Enhanced efficiency of the solid waste collection and disposal • Improvement in the environment of the city: • Improved general public health standards. • Minimized public mental tension and frustration • Elimination of obnoxious smell • Reduction in expenditure on medicine • Improved local economy

iii. Environmental Impact negative/positive	There will be no negative impact during and after implementation of the project. Rather positive impacts because of improvement in environments of the city, will be observed and present health hazards will be eliminated. Hence overall positive impacts will be experienced due to execution and operation of the project						
iv. Quantifiable project outputs	The quantifiable project outputs have been given above in Sr. No-9 (V). The social benefits to the citizen have been described at Sr. No-11(ii).						
v. Unit cost analysis	<p>The unit cost analysis is produced below:</p> <table border="1" data-bbox="399 582 1276 716"> <tr> <td>Project capital cost of the Project</td> <td>PKR 108.084 million</td> </tr> <tr> <td>Population in year 2020</td> <td>493,560 persons</td> </tr> <tr> <td>Unit capital cost per capita</td> <td>PKR 219.00</td> </tr> </table> <ul style="list-style-type: none"> Unit O&M cost: – The operation & maintenance cost is already being borne by MC and there will be no increase in this cost. Due to improvement of the services infrastructure O&M cost may reduce for some of the services. 	Project capital cost of the Project	PKR 108.084 million	Population in year 2020	493,560 persons	Unit capital cost per capita	PKR 219.00
Project capital cost of the Project	PKR 108.084 million						
Population in year 2020	493,560 persons						
Unit capital cost per capita	PKR 219.00						

Employment
generation
(direct and
indirect)

Employment Analysis

Direct Employment

a) *Planning and Design of projects*

The planning and design of the project will be entrusted to local consultants who will be appointing staff and experts in different disciplines and their support staff. However in rehabilitation projects no planning and design is involved. The consultants will however verify and certify the items of work included in the cost estimates and PC-I.

b) *Execution of the Project*

a) *PMDFC*

PMDFC has enough experts and staff to execute the rehabilitation projects. However the experts and staff in some disciplines are not available with PMDFC and it will be hiring them. PMDFC will deploy under mentioned staff for these projects:

- Civil Engineers
- Accounts, administration and audit personnel
- Urban planners
- GIS experts
- Support staff like computer operators, vehicle drivers, office boys and guards.
- Procurement experts
- Communication experts
- Environmental and social experts
- Contract management experts

b) *Consultants*

PMDFC will employ consultants for resident supervision of the projects who will deploy their staff for execution of the project.

c) *Municipality*

Municipal committee has regular staff like engineers, sub engineers and other administrative & accounts keeping staff which will be responsible for execution of the project and contract management. No additional staff will be needed for execution of this project

d) *Contractor*

The contractor responsible for execution of the sub project will employ skilled and un-skilled labor on this work.

Indirect Employment

Indirect employment for production of material such as cement, steel, stone, metal, bitumen, bricks etc. will be generated.

Impacts of delays on project cost and viability	<p>The impact of delay in project implementation will:</p> <ul style="list-style-type: none"> • Result in increased project cost due to escalation in cost of material and labor. • Delay the benefits to the target group • Result in further deterioration of the infrastructure and the service delivery level.
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Implementation Schedule

Indicate starting and completion date of the project	The project is anticipated to commence by February 2020 and to be completed by September 2020 with project implementation period of 8 months.
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Item wise/year wise schedule in line chart	The repair, maintenance and replacement activities for all the municipal services will be commenced in parallel to complete the project within prescribed time limit.
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Management Structure and manpower requirements

Administrative arrangements for the implementation of the project	<p>ii. Planning & design of the project</p> <p>The project comprises of Rehabilitation and Replacement works and hence no planning and design is involved.</p> <p>iii. Preparation of cost estimation</p> <p>The cost estimates have been prepared by the MC staff by actual measurements at site and checked by PMDFC for technical feasibility as well as sustainability. The items of works included in these estimates will be certified by Supervision Consultants appointed by PMDFC when they are in place.</p> <p>iv. Execution of the project</p> <ul style="list-style-type: none"> • The project will be executed by Municipal Corporation Jhang and supervised by the Consultants appointed by PMDFC in resident supervision mode. The technical staff & experts in PMDFC (given below) will oversee, co-ordinate and collaborate in the project planning, design and implementation through their experts in head office located in Lahore and regional offices by scrutiny of all project documents for their technical feasibility and sustainability. The reporting of progress to LG & CDD & World bank and troubleshooting will also be responsibility of PMDFC. • MO (I) will be designated as Project Manager. The supervision of the works will also be carried out by these municipal officers along with their support engineering staff. All supervisory staff is available with MC. • The procurement of works and goods will be done by Procurement
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Committee of Municipal Corporation Jhang as per PPRA Rules with one representative from PMDFC and one from Supervision Consultants as Co-op members of this committee.

v. Verification of quantities included in PC-Is and Resident Supervision of the works by Consultants

The works will be supervised by Supervision Consultants in resident supervision mode by assuring the quantity and quality of works. The consultants will verify the items of work and their quantities contained in the PC-Is and cost estimates initially and then the quantities and quality of works included in the contractor claims at the stage of payments. Payments will be made by the MC after these contractor claims have been entered in the measurement books by the Project Manager and pre audited as per I.G Works rules.

- The manpower requirements by skills during execution and operation of the project and; the job description, qualification, experience, age and salary of each post

a) PMDFC experts and staff

For rendering assistance in implementation of infrastructure projects in 16 MCs, PMDFC has the experts and staff in the required fields. However some additional staff will be appointed by PMDFC exclusively for the projects to be executed under PCP and deployed on this project. In order to facilitate the MCs, three regional offices will be established by PMDFC at Gujranwala, Faisalabad and Multan/Khanewal.

The manpower to be deployed for these projects is given below;

S.N.	Designation	No of slots	Qualifications	Experience
1	Deputy Program Director	1	BSC civil Engg. MSC Public Health Engg.	15 years in infrastructure
2	Senior Program Officer infrastructure	2	BSc. Civil Engg.	20 years in infrastructure
3	Program officers infrastructure	4	BSc. Civil Engg	8 years in infrastructure
4	Deputy program officer infrastructure	5	BSc. Civil Engg.	4 years in infrastructure
5	Senior procurement officer	1	16 years education in Engineering/ Commerce/ Business / Management	12 years in procurement
6	Procurement officers	3	do	8 years in procurement
7	Program officer contract management	3	16 years or higher education degree in Engineering.	8 years in contract management

b) Resident Supervision Consultants

The rehabilitation works will be supervised by consultants. The tentative staff to be employed/deployed by the consultants for the certification of quantities of works and resident supervision of the project is given below.

S #	Personnel	Nos	Qualification
1	Chief Resident Engineer/Team Leader	01	BSc/BE in Civil engineering with minimum 20 years' professional experience or MSc: Civil Engineering/Public Health Engineering/Environmental Engineering with Bachelor in Civil Engineering and minimum 15 years' experience, with 5 years on similar assignments in both cases.
2	Senior Engineer	01	BSc/BE Civil engineering with minimum 08 years' relevant design experience or MSc engineering, with 5 years on similar assignments in both cases.
3	Resident Engineer	01	BSc/BE Civil engineering with minimum 10 years' experience in site supervision and execution for projects of similar nature.
4	Assistant Resident Engineer	01	Bachelor Degree in Civil engineering with minimum 8 years' experience in site supervision and execution for projects of similar nature.
5	Site Inspectors	01	DAE in Civil with minimum 10 years' experience in site supervision for projects of similar nature.
6	Quantity Surveyor	01	DAE in Civil Technology with minimum 10 years' experience in estimation & costing of projects of similar nature. The person having public sector projects will be preferred.
7	AutoCAD Operator	01	DAE in Civil Technology with minimum 5 years' experience in preparation of drawings for projects of similar nature. (situated at Lahore office)

c) Contractor's Technical staff, skilled & non skilled labor

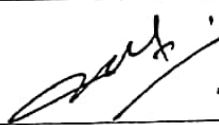
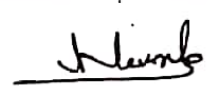
The contractors will employ the supervisory technical staff and skilled & non skilled labor for execution of works. The works will be supervised by experienced Engineers and sub engineers and the number of slots for engineers and skilled and non-skilled will depend upon the type and quantity of work and its period of completion.

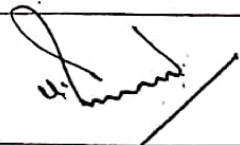
d) Operation of the projects

MC has its own regular staff which has been deployed for operation and maintenance of the municipal services infrastructure. However it has been observed that the existing staff is not adequate to operate the services in a manner which can give good service delivery. Hence it is proposed to;

- Fill up the presently vacant slots
- Recruit additional staff as per need of the infrastructure after obtaining the sanctions from the competent authorities.

<p>Additional projects /decisions required to optimize the investment being undertaken</p>	<p>1) Shortage & frequent transfers of Provincially appointed staff MC is facing shortage in provincially appointed and locally appointed cadres. This will seriously affect the pace of progress of the program and the implementation of the infrastructure projects may be delayed. Provincial Government should fill up the vacant staff immediately for optimizing the investments in MC.</p> <p>2) Operation & Maintenance (O&M) staff The O&M staff is also deficient and this is adversely affecting the service delivery level. Number of slots are vacant but MC is not allowed to recruit the persons to fill these slots due to ban on recruitments. Further the sanctioned strength of the field staff is much lesser than the actual requirement because with the increase in population and extension of services, additionally required staff has not been sanctioned by the competent authorities. Both of the above issues need to be addressed for optimal utilization of the investments and giving targeted benefits to the resident population of these cities.</p>
<p>5-Certificate</p>	<p>Certified that the project proposal has been prepared on the basis of guidelines provided by the Planning Commission for the preparation of PC-I for social sectors projects.</p>

Prepared by		Checked by	
Name	Zafar Abbas	Name	Muhammad Anwar Baig
Designation	Municipal officer (Infrastructure) Municipal Corporation Jhang	Designation	Chief Officer Municipal Corporation Jhang
Signature		Signature	
Date			

Administrator Municipal Corporation Jhang	Signatures	
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