

**Rawalpindi Development Authority**  
**Government of the Punjab**

**PC-II**

**PRE-FEASIBILITY STUDY, STRATEGIC  
DEVELOPMENT PLAN & DETAILED  
FEASIBILITY FOR URBAN REGENERATION  
PLAN ALONG LAI NULLAH EXPRESSWAY**

**ESTIMATED COST      Rs. 23.745 Million**

**November 2021**

**1<sup>st</sup> Revision**

**PRE-FEASIBILITY STUDY, STRATEGIC DEVELOPMENT PLAN & DETAILED  
FEASIBILITY FOR URBAN REGENERATION PLAN ALONG LAI NULLAH  
EXPRESSWAY AND FLOOD CHANNEL PROJECT**

1. Name by which Project will be identified	“Urban Regeneration Initiative along Lai (URIAL)”
2. Administrative authorities responsible for:	
i) Sponsoring	Housing Urban Development and Public Health Engineering Department, Govt. of the Punjab.
ii) Execution	Rawalpindi Development Authority, through Project Management Unit (PMU) Established through PC-I of “Lai Expressway and Flood Channel Project” and established under Commissioner Rawalpindi, Division Rawalpindi vide Notification No.SO(UD)7-7/2021 dated 08.10.2021
3. Details of Survey / Feasibility Study	
(a) General Description	<p><b><i>Lai Nullah</i></b></p> <p>Lai Nullah Basin is located between 33° 33’ and 33° 46’ North and 72° 55’ and 73° 07’ East. It has a catchment area of 234.9 Km<sup>2</sup> that is administratively divided into Islamabad Capital Territory (ICT) in the upper reaches having 144.4 Km<sup>2</sup> and Rawalpindi City in the lower reaches having 90.5 Km<sup>2</sup>. The ground elevation of the Lai Nullah Basin ranges from EL. 420 m at the downstream of the Basin (i.e., the confluence with Soan River in Rawalpindi City) to EL. 1,240 m at the upstream end (i.e., a mountain top in the Margalla Hill range in Islamabad City).</p> <p><b><i>Lai Nullah – An Urban Flooding Nightmare</i></b></p> <p>Lai Nullah is a permanent physical feature of the Rawalpindi City that originates from the Margalla Hills Islamabad and enters into the densely populated areas of Rawalpindi at the IJP Road, the administrative boundary between the twin cities of Rawalpindi and Islamabad while joining Soan River in the south. In Rawalpindi City area, number of main drains and tributaries such as Saidpur Kasi, Kanitwali, Badarwali Kasi and Tenawali Kasi, Nikki Lai, Dhoke Hassu Nullah, Dhoke Ellahi Bakhsh and PAF Colony Nullah join the main stream Lai Nullah within Rawalpindi City.</p>

Rawalpindi/Islamabad receives heavy rains in monsoon season that discharges flashily flows into Lai Nullah with eroded sediments causing colossal damages to the lives and properties of the people. Besides, Nullah Lai is heavily polluted by virtue of throwing garbage and untreated wastewater of both Cities which are creating severe environmental hazards. Sporadic and haphazard development has taken place along both banks of the Lai Nullah. The streets in these areas are narrow and infrastructure is deficient. Overall, the areas surrounding Lai Nullah are highly unhygienic with worst slum area living conditions. The land values are comparatively lower due to unhygienic living conditions in the area.

***Mixed Land Use Problem***

Mixed land use is predominant in the central areas of the City along Lai Nullah consisting of Raja Bazar, Circular Road, Iqbal Road, Liaquat road, Ganjmandi road, Kashmir Road etc, which are the main shopping areas of the City. The concentration of the commercial activity and its linear growth has created complex problems, such as inadequate parking places, poor accessibility due to encroachments on roads, foot paths and presence of vendors/ hawkers. The area between the main streets forming pockets, are filled with residential use. These bazaars have developed in the present shape over the years and would continue to extend further by the process of invasion and succession in the future as well, unless some to curb this trend. The Vegetable and Fruit Market, Sarafa Bazar, Bara Market, Grain Market and other main markets are also located thereby and create their attendant issues compounding the issue of congestion and thus are holding back the attainment of real economic potential of these locations. In addition to constraining economic growth the congestion due to mixed use of these neighborhoods leads to ungainly civic outcomes for residents, businesses

& visitors of these businesses. Mixed land use therefore needs to be revisited in a way so as to maximize economic gains while minimizing negative civic outcomes. The other uses such as restaurants, hotels, wagon / Suzuki stands and some offices are located in this area, which create serious traffic problems during peak hours.

The areas towards the north have also mixed land uses. The shopping facilities, mainly in the shape of bazaars, are scattered in this part of City. The institutions like Government Degree College and Government Hospital are also located in this area. Further to the north are planned housing schemes, namely, Saidpur Road Scheme, Satellite Town and Khayaban-e-Sir Syed.

#### **Lai Expressway & Flood Channel Project**

To address above stated issues, a 16.5-km-long Lai Expressway from Soan River Bridge to Kattarian Bridge was conceived by RDA to create alternative traffic route between the twin cities of Rawalpindi and Islamabad and eliminate environmental pollution caused by open sewage in Lai Nullah and also construct a flood channel for saving the citizens of Rawalpindi from the flash floods. For achieving these objectives, a mega project namely Lai Expressway & Flood Channel Project is currently undergoing approval processes from relevant provincial & federal fora and is at an advanced stage of its commencement.

#### ***Lai Urban Regeneration Corridor***

Execution of the above-described project is expected to become a catalyst of transformation of areas along Nullah Lai leading to gainfully impact the fortunes of public & private properties falling in these areas. From a layman's perspective this project may appear to be merely an expressway along a flood channel. From City Planners perspective however it can become an Urban Regeneration Corridor if its area of

influence is appropriately mapped and planned, and if a road map of development as per this plan is also agreed upon by all the relevant stake holders. Civic issues and economic growth constraints emanating from the question of mixed use discussed above can also be optimally addressed via an integrated plan along this Urban Regeneration Corridor. In a nutshell Lai Expressway & Flood Channel Project offers a planning opportunity for smartly, sustainably and wealth-creatingly transforms congested neighborhoods as well as slum areas along Lai Nullah.

In this regard, RDA through Project Management Unit (PMU) intends to conduct a prefeasibility study to prepare a proposal to develop Urban Regeneration Land Use Plan on both sides of Lai Nullah for leveraging the opportunity which is coming up because of the construction of Lai Expressway Project.

RDA has proposed this Urban Regeneration Plan Project. Both the construction of Lai Expressway & Flood Channel Project (LEFC) Project and Urban Regeneration Initiative Along Lai (URIAL) Project will supplement and complement each other's economic & civic outcomes and are expected to lead to overall development of the area with improved living conditions in Rawalpindi City.

The proposed Urban Regeneration Initiative Lai (URIAL) Project aims to develop a unique model of slum transformation & wealth creation corridor which is initially expected to fire up the construction boom eventually leading to the eventual emergence of a high rise Coaxial Central Business District (CCBD), Along Lai waterfront urban regeneration along the Lai Nullah Expressway through well-planned business & commercial activities on the reclaimed and adjoining land to make it an Axis of Wealth Creation for an urban agglomeration of around 3.0

	<p>million people and entailing overall economic growth in Pothohar region and improved living conditions in Rawalpindi City.</p> <p>A Town Planning Consulting Firm having valid registration with Pakistan Council of Architects and Town Planners (PCATP) and relevant experiences will be engaged through competitive bidding process as per PPRA rules for conducting the detailed study of the area to explore the possibilities and feasible options for an Urban Regeneration Plan for the areas on both sides of Lai Nullah which shall be significantly influenced by the Lai Nullah Expressway &amp; Flood Channel Project. Such plan should prioritize new wealth creation and asset value maximization of existing public &amp; private assets and should also stimulate growth in the Pothohar regional economy. The plan should attract investments both, domestic &amp; foreign, and should attract investors in high rise construction to fire up construction boom in Rawalpindi City. Simultaneously this plan should lead to emergence of an aesthetically endowed ambiance attracting corporate culture &amp; luxury living in the target area and should enrich life of the denizens of twin cities. This plan may take its inspirations from around the world for creating a water front experience for domestic and foreign visitors &amp; tourists. Water front experience should also include cultural, family entertainment, youth culture, night-life for the residents and tourists alike. The plan however must ensure that significant share of the wealth created in the implementation cycle flows to the residents and private property holders in the target area and entails not only higher income levels generally but especially leads to significant reduction in the levels of poverty.</p>
(b) Objective of the Project	<p>Urban Regeneration Initiative Along Lai (URIAL) project aims to leverage the benefits of Lai Expressway &amp; Flood Channel Project with well-planned urban development containing commercial activities along Nullah Lai to</p>

stimulate economic growth, attract local and foreign investment and leads to wealth creation and poverty reduction. The assumption is that land value enhancement, realized through smart and well-planned urban regeneration of the project area, should be enough to finance the necessary as well supplemental infrastructure to fully leverage the urban regeneration potential of the upcoming Lai Expressway & Flood Channel Project (LEFC). URIAL Project is essentially for complementing, supplementing & leveraging the gainful outcomes of LEFC Project. URIAL Project is not merely a land use plan but is also expected to be a road map as well as investment plan for developing the infrastructural elements necessary to realize the objectives of URIAL and to make it attractive enough for the private investments in not only private infrastructure but also in the public infrastructure. Achieving this vision would require a sound legal & institutional framework, with some kind of special legislation to ensure effectiveness & efficiency of management of urban regeneration on both sides of the Lai waterfront.

1. Regeneration and redevelopment along both banks of the Lai Expressway project.
2. Promote economic densification and in-fill of existing urban areas with urban regeneration of built-up areas to address housing demand in twin cities and also create economic opportunities do so that regenerated areas are not merely for residential purpose but also revenue creators, job creators, wealth creators for a broader range of education and skills.
3. Promote High Rise living and make high rise living cost effective yet economically gainful thus arresting the trend of horizontal sprawl eating up greenfield areas, agri-lands, forests, and wildernesses in Pothohar region.
4. Create IT infrastructure for promoting work from home and also settings spaces for setting up corporate offices and intellectual

	<p>property centric R&amp;D enterprises, creating white collar management and executive jobs.</p> <ol style="list-style-type: none"> <li>5. Envisage 4<sup>th</sup> Generation Industrial Estates, Vertical Industrial Estates, Vertical Fruits &amp; Vegetable Markets, Vertical Commodity Markets, Vertical Laari Addas, Vertical Truck Addas, Vertical Re-Packaging Centers etc</li> <li>6. Improve services network and densify the existing areas with high rise buildings while simultaneously add green spaces open areas, parks, playgrounds as well as sports and entertainment spaces.</li> <li>7. Taking examples from the Muslim World envisage High Rise grave yards supported with Fatawas of Prestigious Islamic Scholars.</li> <li>8. Create a model of urban slum regeneration with healthy, planned and sustainable areas and maximize the socio-economic potential of existing slum areas through the most feasible and viable options for constructing the multistory buildings along and in the surrounding areas of the LEFC Project.</li> <li>9. Envisage framework for reducing Carbon Foot print from the target area and also for creating Pothohari Flora based Carbon Sequestration Plan. Also Ensure that not a single inspiration should entail introduction of exotic flora in the target area. Also envisage how True-To-Type Pothohari Flora &amp; Fuana can be maximized in the target area as well as in its adjacent areas. Also envisage how exotic flora species in the target area can be replaced with Pothohari Flora.</li> <li>10. Envisage Solarization, Waste Recycling, Waste Water Re-Cycling, Solid Waste Re-Cycling for the target area. Also envisage energy conservation strategies so as to</li> </ol>
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	<p>minimize net energy consumption in the target area.</p> <ol style="list-style-type: none"> <li>11. Develop Strategic Development Plan including detailed master planning for the Project Area; with clear policies, strategies, regulations and other project management measures.</li> <li>12. Develop a sound business model for the Project, with assessment of various financing options pitched for private investments;</li> <li>13. A sound institutional framework for the development &amp; management of whole project.</li> <li>14. Develop a policy and strategy.</li> <li>15. Develop a strategy for media engagement, public awareness, community mobilization and meaningful public participation for effective and efficient implementation of the project.</li> <li>16. Develop mechanisms and methods for increasing economic opportunities in the area with improved public access and mobility among various parts of the twin cities.</li> <li>17. Develop a comprehensive and cohesive plan for public amenities that adequately meet the needs of current and future residents and complements those amenities available in neighboring areas.</li> <li>18. Support in developing detailed designs and procurement documents for public infrastructure development;</li> <li>19. To explore all possible supporting components to make the project sustainable.</li> </ol>
(b) Justification	<p>Unplanned urban growth has been rampant in Rawalpindi, particularly in areas along the Lai Nullah. The poor living conditions, slums, squatter settlements, and overcrowding have become characteristics of Rawalpindi. Almost entire</p>

residential area is single and double storied, without any significant high-rise apartment buildings. The inadequacy of urban services, especially sewerage, drainage and solid waste management have further worsened the quality of life and the environmental conditions of the city.

Mixed land use is predominant in the central areas of the City along Lai Nullah consisting of Raja Bazar, Circular Road, Iqbal Road, Liaquat road, Ganjmandi road, Kashmir Road etc, which are the main shopping area of the City. There is no segregation of non-compatible land uses, which have not been related to overall transportation system, thereby creating congestion, chaos, traffic hazards and environmental problems. The concentration of the commercial activity and its linear growth has created complex problems, such as inadequate parking places, poor accessibility due to encroachments on roads, foot paths and presence of vendors/ hawkers. The area between the main streets forming pockets, are filled with residential use. These bazaars have developed in the present shape over the years and would continue to extend further by the process of invasion and succession in the future as well, unless some drastic measures are adopted to curb this trend. The Vegetable and Fruit Market, Sarafa Bazar, Bara Market, Grain Market and other main markets are also located in this area thereby creating great nuisance for the nearby residents. The other uses such as restaurants, hotels, wagon stands and some offices are located in this area, which create serious traffic problems during peak hours.

The areas towards the north of central parts have also mixed land uses. Some efforts have been made to segregate non-compatible land uses along Asghar Mall but the same have proved ineffective due to absence of effective development control. The shopping facilities, mainly in the shape of bazaars, are scattered in

	<p>this part of City. The institutions like Government Degree College and Government Hospital are also located in this area. Further to the north are planned housing schemes, namely, Saidpur Road Scheme, Satellite Town and Khayaban-e-Sir Syed.</p> <p>In view of the city's problems of slum areas and associated environmental problems along the Lai Nullah, the Government of Punjab (GoPb) through RDA has planned to develop Urban Regeneration Plan on both banks of the Lai Nullah along 16.5 km long stretch from Kattarian Bridge up to High court, Rawalpindi. In this Regard, RDA intends to conduct a prefeasibility study to prepare a proposal to develop well planned urban regeneration corridor along Lai nullah. This plan aims to guide the urban vertical growth and helps in arresting horizontal sprawl in the surroundings of the City and restricting unplanned and haphazard growth of the city by providing guidelines for land use and urban development. This project aims at stimulating high rise growth in the city so that the horizontal sprawl of the city entail land-use in-efficiency and also eating up greenfield areas including precious wildernesses, forests and agri-lands.</p> <p>The technical expertise is not available with RDA to conduct the feasibility report along with detailed design of the project. Therefore, the consultancy services will be required.</p>
<p>(c) Month of commencement and completion (give detail of phasing).</p>	<p>The period assignment is 5 months starting from the date of signing of contract agreement with consultants and completing the obligations.</p> <p>Month of Commencement -----<b>January 2022</b></p> <p>Month of Completion ----- <b>May 2022</b></p> <p>Consultant will follow a sequel reporting schedule as under:</p> <p>(i) Brief inception report two week after commencing the services</p>

	<ul style="list-style-type: none"> <li>(ii) Pre-Feasibility study report including surveys etc 2.0 months</li> <li>(iii) Midterm Progress report at the end of 2.5 months</li> <li>(iv) Draft Reports and Urban Designs at the end of 4.0 months</li> <li>(v) Final report two weeks after receipt of comments on the draft final report from the Government</li> <li>(vi) Monthly progress report every month.</li> </ul>																						
(d) Estimated Cost	<p><b>Rs.23.745 Million.</b> It will cater for engagement and remuneration of the consultants, equipment, seminar, consultation workshops, miscellaneous administrative support and contingencies. Details are attached as <b>Annexure-1</b>.</p>																						
(e) Personnel required No: i) Local	<ul style="list-style-type: none"> <li>• Director General, RDA / Project Director alongwith PMU staff with Metropolitan Directorate RDA.</li> <li>• Local consultants through competitive bidding through consultant selection criteria of P&amp;D Department. Consultant shall be well conversant with the existing system and should have been recently involved in similar natures of studies at National levels. Following Manpower (key experts) will be required:</li> </ul> <table border="1" data-bbox="722 1319 1401 1924"> <thead> <tr> <th data-bbox="722 1319 842 1406">Sr. No</th> <th data-bbox="845 1319 1401 1406">Position</th> </tr> </thead> <tbody> <tr> <td data-bbox="722 1411 842 1451">1</td> <td data-bbox="845 1411 1401 1451">Team Leader (Urban Planner)</td> </tr> <tr> <td data-bbox="722 1456 842 1541">2</td> <td data-bbox="845 1456 1401 1541">Spatial/Peri-urban Planning Specialist (Deputy Team Leader)</td> </tr> <tr> <td data-bbox="722 1545 842 1630">3</td> <td data-bbox="845 1545 1401 1630">Community Mobilization and Resettlement Expert</td> </tr> <tr> <td data-bbox="722 1635 842 1675">4</td> <td data-bbox="845 1635 1401 1675">Urban Design Specialist</td> </tr> <tr> <td data-bbox="722 1680 842 1720">5</td> <td data-bbox="845 1680 1401 1720">Urban Infrastructure Engineer</td> </tr> <tr> <td data-bbox="722 1724 842 1765">6</td> <td data-bbox="845 1724 1401 1765">Urban Economist /Financial Expert</td> </tr> <tr> <td data-bbox="722 1769 842 1809">7</td> <td data-bbox="845 1769 1401 1809">Legal Expert</td> </tr> <tr> <td data-bbox="722 1814 842 1854">8</td> <td data-bbox="845 1814 1401 1854">Structural Engineer</td> </tr> <tr> <td data-bbox="722 1859 842 1899">9</td> <td data-bbox="845 1859 1401 1899">GIS Specialist</td> </tr> <tr> <td data-bbox="722 1904 842 1924">10</td> <td data-bbox="845 1904 1401 1924">Urban Environmental Specialist</td> </tr> </tbody> </table>	Sr. No	Position	1	Team Leader (Urban Planner)	2	Spatial/Peri-urban Planning Specialist (Deputy Team Leader)	3	Community Mobilization and Resettlement Expert	4	Urban Design Specialist	5	Urban Infrastructure Engineer	6	Urban Economist /Financial Expert	7	Legal Expert	8	Structural Engineer	9	GIS Specialist	10	Urban Environmental Specialist
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1	Team Leader (Urban Planner)																						
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6	Urban Economist /Financial Expert																						
7	Legal Expert																						
8	Structural Engineer																						
9	GIS Specialist																						
10	Urban Environmental Specialist																						

<p>iii) Give period of contract for local and foreign consultants and term of their appointment.</p>	<p>The consultant time period shall be for a period of 05 months with different input of the consultant.</p>
<p>(f) Mode of financing: (Give budget provision). If Foreign exchange expenditure is involved indicate whether a firm commitment is available</p>	<p>Government of Punjab through Supplementary grant.</p>
<p>4. Details of scheme likely to be submitted after survey: (Give information wherever possible) a) General description</p>	<p>The consultant will lead to prepare the project concept as per TORs of consultants attached as “<b>Annex-A</b>”. Based on the existing situation as discussed earlier, the project will in general include the following components which are tentative and may get modified or some component may even be dropped as a result of detailed studies and consultative meetings of the consultant with the stake holders.</p> <ol style="list-style-type: none"> <li>1. Assessment of existing socio-economic level of the population and public consultation process with recommended measures.</li> <li>2. Review of Constitutional /Legal Framework and the Case Law and similar situation analysis from neighboring countries for finding solutions to Slum Clearance, urban regeneration and Resettlement Problem.</li> <li>3. Assessment of market values of land and phase-wise resettlement of population to vacate the land for construction of multi-story buildings by private investors.</li> <li>4. Condominium Rights Framework.</li> <li>5. Detailed GIS based existing and proposed land use maps including proposed transport network and attribute data;</li> <li>6. Assessment of Existing Infrastructure Services Networks in the area.</li> <li>7. Typical design of Multistorey Buildings with cost-benefit analysis</li> <li>8. Institutional &amp; Regulatory Framework that include Building and Zoning Regulations.</li> <li>9. overall conceptual framework aimed at</li> </ol>

	<p>addressing all the opportunities and constraints.</p> <p>10.A schematic design of the Project, including a development framework, prioritized interventions, and 3-D models of the area.</p> <p>11.Strategic Development and Master Planning of the Area</p>
b) Location	The Plan attached as <b>Annexure-B</b>
c) Estimated cost	<p>Adoption and implementation of the Plan created by this project by relevant stakeholders is expected to generate revenues for the Federal, Provincial, and Metropolitan Corporation Rawalpindi, Capital Development Authority, Chaklala Cantonment Board, Rawalpindi Cantonment Board, Pakistan Railways, and Rawalpindi Development Authority. The Consultant shall evaluate various options of financial models of the proposed multistory buildings and revenue generation for the RDA in terms of fee for commercialization, building plan approval and betterment fee. The consultant shall also recommend various zones of fee standards for such activities. Moreover, Consultant shall develop a partnership model that ensures a solid financial foundation, manages financial risk and secures revenue that fund requisite infrastructural addition / development required by this urban regeneration plan.</p> <p>The exact cost and revenue generation will be worked out after the completion of the study.</p>
d) Benefits of Project (Economic, financial and non-quantifiable)	<p>The cost benefit ratio of the project shall be evaluated after completion of study. The proposed project will enhance economic growth through commercial activities along both banks of Lai Nullah.</p> <p>The implementation of this project will result in relief in prevailing congested traffic and contribute as a positive step towards improvement and preservation of environment. And also it is expected to promote vertical growth of City and thus arrest horizontal sprawl of the city into</p>

	wildernesses, forests, agri-areas and green areas.  The workforce of local population is skilled in construction work will have an opportunity of local employment during construction of road.
e) Probable Mode of Financing	For the PC-II Government of Punjab ----- 100% For various infrastructural projects coming out of the PC-II— Public Private Partnership Model or self-funded by relevant local government, Cant Boards, RDA or relevant government agency.
f) No. of persons likely to be employed during implementation of scheme and after completion.	The project will promote construction industry that will create employment opportunity for many sectors.
g) Materials and Parts required yearly and after completion of the project (local and foreign costs)	Details of materials required and cost will be estimated by the Project Consultant, who would be nominated after the project has been approved by the competent authority for implementation.

**Prepared by:** Director (MP&TE)  
Rawalpindi Development Authority,  
Rawalpindi

**Recommended by:** Director General  
Rawalpindi Development Authority  
Rawalpindi

**Forwarded by:** Secretary  
HUD & PHED,  
Govt. of the Punjab