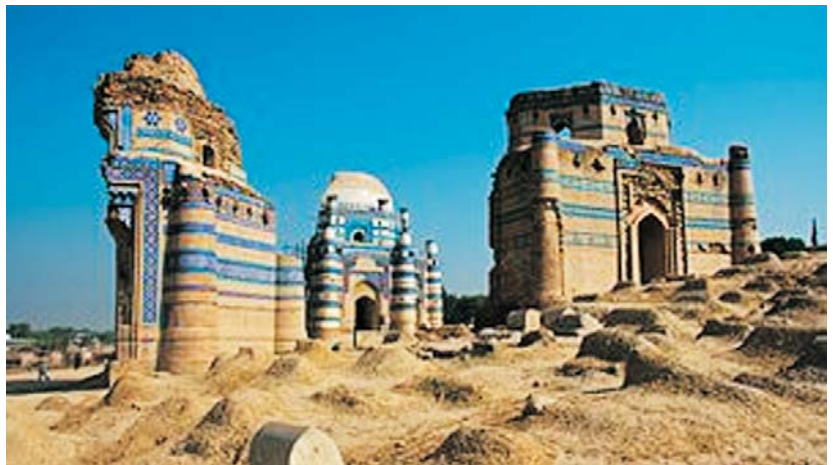


*ISSN 1728-7715 (print)*  
*ISSN 2519-5050 (online)*

# **JOURNAL OF RESEARCH IN ARCHITECTURE AND PLANNING**



*VOLUME TWENTY-TWO*  
**2017 (First Issue)**

*ISSN 1728-7715 (print)*  
*ISSN 2519-5050 (online)*

**JOURNAL OF RESEARCH IN  
ARCHITECTURE  
AND  
PLANNING**

*VOLUME TWENTY-TWO*  
**2017 (First Issue)**

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Department of Architecture & Planning,  
NED University of Engineering & Technology, City Campus  
Maulana Din Muhammad Wafai Road, Karachi.

ISSN: 1728-7715 (Print)  
ISSN: 2519-5050 (Online)

Online publication available at:  
[http://www.neduet.edu.pk/arch\\_planning/NED-JRAP/index.html](http://www.neduet.edu.pk/arch_planning/NED-JRAP/index.html)

Publication Designed at Department of Architecture and Planning  
NED University of Engineering & Technology, Karachi

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Department of Architecture and Planning,  
NED University of Engineering and Technology,  
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Khawaja Printers, Karachi.

# CONTENTS

	<b>Editor's Note</b>	vii
<i>Mohammed Mahbubur Rahman</i>	Low-Income Housing and Sustainability of the Slum Improvement Program in Bangladesh	01
<i>Syed Mujahid Hussain Abdul Waheed Malik Naeem Asghar</i>	Emerging Challenges in Land Use Regulation System: A Case Study of Murree, Pakistan	16
<i>Shabnam Nigar Mumtaz</i>	Community Based Urban Area Conservation Lessons from Pakistan	26
<i>Dr. Muhammad Asim Dr. Saima Gulzar Muhammad Mashood Arif, Rumana Khan Shirwani</i>	Study on Impediments and Success of Building Byelaws Implementation in Lahore, Pakistan	34
<i>Faiqa Khilat Dr. Muhammad Yusuf Awan, Sana Malik Beenish Mujahid</i>	Documenting the Architectural Characteristics of the Cathedral Church of the Resurrection, Lahore	43
 <b>Book Review</b>		
<i>Neel Kamal Kapila D Silva (eds)</i>	Asian Heritage Management - Contexts, concerns and prospects	53
	<i>A Review by Masooma Shakir, Assistant Professor, Department of Architecture and Planning, NED Univesity of Engineering and Technology, Karachi</i>	

*Note: All the photographs included in this issue have been taken by the authors unless otherwise mentioned.*

## **EDITORS' NOTE**

The papers included in this volume of JRAP cover a vast range of urban planning and design issues, ranging from aspects of sustainability in low-income housing, to land use regulations, urban area and buildings conservation, building byelaws and their implementation.

The first paper included in this volume sheds light on the strategies adopted by the developing world to make low-income housing sustainable in terms of improved environment, tenure security, income and resource generation. This paper reviews low income housing in Bangladesh as a case in point.

The second paper reviews the inability of the developing world to implement master plans and land use regulations in their fast growing urban agglomerations. This paper analyzes the case of Murree in Pakistan and proposes building byelaws and zoning regulations to make the development of Murree physically, socially, environmentally and economically sustainable.

The third paper evaluates the importance of the role of local communities in any urban area conservation and development project. This paper raises some important questions regarding urban area conservation strategies and tries to answer them through a case based approach. The status of community based conservation practice in Pakistan is analysed and the factors that contribute to the success or failure of conservation exercises in the country are reviewed.

The last two papers are set within the context of the city of Lahore in Pakistan. The fourth paper reviews the building byelaws and their implementation in Lahore and analysis the success or failure of the implementation process within different jurisdictions. This paper uses mixed methods to collect the data and identifies tools for better implementation of building byelaws.

The fifth and last paper i.e. documents the architectural characteristics of a monumental building in Lahore, the Cathedral Church of the Resurrection. The evolution of the building over the years, the addition and subtraction of different architectural features and the current condition of the building has been recorded in this paper, along with its connection to the prevalent political and institutional changes within the city of Lahore.

This issue of JRAP also includes a book review of the publication entitled 'Asian Heritage Management – Contexts, Concerns and Prospects' edited by Neel Kamal Chapagain and Kapila D Silva.

### **Editorial Board**

# LOW-INCOME HOUSING AND SUSTAINABILITY OF THE SLUM IMPROVEMENT PROGRAM IN BANGLADESH

*Mohammed Mahbubur Rahman\**

## ABSTRACT

Slums providing housing to a good proportion of urban population in many developing countries have grown dramatically. Governments, mostly assisted by the international agencies, have achieved improved environments, tenure security, raised income and resources in many of these. Yet that could not eradicate the problems as benefits could not be sustained due to lack in institutional development, policy implementation, governance, participation, etc. Moreover, the urban poor's capability to bring affordable and sustainable solutions, which can be improved with assistance, was overlooked. This paper discusses the changed approach to the issues of low-income groups housing in the above context, and examine the same in the context of Bangladesh. It also evaluates the achievements and sustainability of the Slum Improvement Program therein.

**Keywords:** Capacity Building, Empowerment, Housing, Participation, Slums, Sustainability, Urban Poor

## INTRODUCTION

The UNCHS' 1996 "global call" to ensure adequate shelter and sustainable human settlements for all has put the onus on the governments. Urban population in the developing world, to be doubled by 2030, will include huge growth in the number of slums, housing a sixth of humanity manifesting urbanization of poverty and inequality. Given their social, economic and political situations, most of the poor can manage only slum houses. According to the UNCHS (2005), the number of slum-dwellers will become 1.4 billion in 2020. The Millennium Development Goals (MDGs) urged to improve the lives of only 100 million of them by then (UN, 2000). Yet, nations have succeeded little in reducing poverty, reaffirming the principles of governance and progress.

This paper draws an outline of sustainable housing from the ideas of Sustainable Development (SD), discusses housing of the low-income groups (LIGs), particularly in Bangladesh, and evaluates the Slum Improvement Program that has been

on-going in last quarter of a century, assisted by the international funding. It draws from literature in order to form an understanding and set criteria for sustainable housing development, and then compare various components of the projects in Bangladesh in terms of their sustainability.

## SUSTAINABLE DEVELOPMENT AND URBAN HOUSING

At the 1992 Rio Summit, the UNCED produced 'Agenda 21'— a Charter of 27 basic SD principles that added an institutional pillar to the environmental, economic and social pillars. It identified programs such as providing adequate shelter for all, improving human settlement, and promoting sustainable land-use, energy, transport and construction. Cities aspire to become sustainable by meeting basic requirements. Revolutionary implications of SD for urban planning and management sound wholesome to everybody (Greider, 1997). SD, bridging the gap between ecological concerns about the consequences of human actions and socio-economic concerns about development issues, advances social equity, expands effective organization, builds capacity, and validates more attention to environmental conservation and protection than with development (Roseland, 2000).

Though indicators of sustainability of community projects vary, some common indicators were: reliability of the system (availability of skills and expertise for regular functioning), human capital development (improve project understanding and community capacity for effective operation and management), development of institutional capacity (trainings and projects to improve the capacities of local bodies), inter agency collaboration, effective use of the system (planning and implementation), and replicability. Besides economic and physical objectives, SD needs to meet social, political, environmental and cultural ones, and basic human needs. Hence it should promote economic growth, maintain social inclusion, and minimize environmental impact.

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\* Mohammad Mahbubur Rahman, Dean, Faculty of Architecture, Kingdom University, Bahrain  
Email Correspondence: mmrahman417@gmail.com



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SD integrates community and quality that takes it beyond planning and policy domains (Stead and Stead, 1996). The post-industrial societies increased efforts to embrace sustainability through a sound and stable framework of social development, public participation, good governance and environmentally sustainable policies and practices (Kates, et. al., 2005; Budd et al., 2008). These addressed social and economic equity, participation, environmental quality, economic vitality, urban sprawl, and supportive planning activities and policies. Thus, a city should have equitable access to utilities, health services and economy, creativity to optimize human potential and integrated and compact communities, actively pursue social equity, and engage citizens (Parris and Kates, 2003; Kates, et. al., 2005).

'Agenda 21' laid down guidelines for sustainable urban development, asking the municipalities to mobilize broad-based, participatory and sustainable improvement. Housing, an important aspect of urban development, contributes to sustainability (Tosics, 2004). Forster-Kraus, et al. (2009) found social aspects of housing as important as the environmental and economic dimensions of sustainability. Thus the economic sector addressing the financial aspects of social justice, and accompanying the environmental sustainability, is an important element of it, while the environmental limits constrain economic growth. Yet the concept of sustainable housing with economic, social and environmental implications emerged later than the environmental approaches (Choguill, 1999).

Moore and Scott (2005) linked SD with the quality of life, well-being and liveability. Housing, an essential component in those, serves sustainability in several ways. MacLaren (1996) outlined related issues: economic vitality and diversity, community self-reliance, individual well-being, and satisfaction with basic human needs. The effects of the environmental impacts associated with housing may be worst for the LIGs (Huby, 1998), who has less choice, and may concentrate in areas of dereliction, with limited access to quality spaces and services. The poor face many constraints in making improvements, which deprives them from quality life, negatively impacting their physical and mental state.

### **Poverty, Development and Housing**

Anand and Sen (2000) have extensively studied the reciprocal relationship between poverty and capability to expand social opportunity in markets, state policy and households (HHs). He based human well-being on development that expands people's freedom and capabilities through economic growth, increased income, technological progress or social reform. Thus SD policies should focus on building individual

capabilities, and ensure freedom of people to achieve desirable life, more significantly of the poor.

That poverty is a threat linking environmental degradation with human development, downplayed the role of wealth (Roseland, 2000). Thus growth around macro-economic stabilization was a preferred strategy for the developing world in the early-1980s (Pugh, 2000). Promoted by the World Bank in the 1990s, development emphasized on broader urban issues and poverty alleviation through socio-economic transformation, and sustained economic growth and modernization for a balanced urban development. These target improvement of living qualities, poverty reduction, job creation, production and environmental sustainability. Combining sustainability with its threat, development, is paralleled by calls to include the LIGs (Clark, 2001); it restores a broader socio-economic purpose of housing equity.

Significant social and economic changes are required for environmental improvements as technical solutions alone cannot protect progress. Hence the reformists suggested promoting sensitive human development to remain sustainable. Proper housing enhances the social, economic and environmental well-being, and transmits sustainability across generations (Ballet et al., 2003). The slum-dwellers lacking services and environmental security cannot participate fully in the community (Peattie, 1987). Recent attention to environment and Quality of Life shifted its role in improving living standards and sustainable human development (Anand and Sen, 2000).

Role of informal sector offering sustainable housing in the developing countries, as locale for socio-economic transformation, was recognised late. Pugh (2000) valued their social, cultural, economic, political and architectural implications. Gradual upgrading of such housing caters to the flexibility of their low and intermittent income and survival needs (Smets, 1999). Personal commitments and appropriate human bondage, generated in LIG housing through freedom and control over the process, can lead to poverty reduction. Good housing increases health and economic productivity too over long-term development transitions (Fogel, 1994).

Pugh (1997) found marks of self-help, HH economics, affordability and home sense in the roles of individuals and HHs, time and energy in home building, domestic chores, income generation (IG), physical improvements, human capital formation, and personal and community activities. As domestic, commercial and the public sectors interacted to bring overall socio-economic development of the LIGs, contribution of home economics, affordable housing,



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environmental improvement and human and labour development became important in SD. Recognition of rights, steady income growth, and development of social capital and empowerment of the LIGs can improve housing.

### **Approaches to Slum Improvement**

Paying attention to the gross shortages and huge slums in the fast growing developing world cities in the 1950s, international agencies started providing advice and project assistance. As direct delivery failed to reach the LIGs, 'aided self-help' and 'site-and-services' followed in the 1970s. But their success was limited by poor economy and small scale; in situ upgrading and incremental building were ignored despite their sustainable qualities (Abbott, 2002). Turner (1976) phrased "freedom to build" or "housing is a verb" to support people's 'participation' in a 'process', and proceed according to capacity.

By then, viability of self-help housing was apparent; the 1976 Vancouver Habitat Conference endorsed a large-scale intervention. Despite having low impact, sites-and-services schemes remained dominant due to funds and instant benefits (Rahman, 1999). Facing problems of recovery, remoteness, inaccessible employment, gentrification, institutional incapability, participation, eviction, corruption, etc., these projects failed to address the core issues, and precluded employment generation and growth of affordable housing. As structural reform was needed to ensure sustainability and replicability, the World Bank in the 1980s was replacing projects with comprehensive policies and programs. Hence the international agencies withdrew from direct building, and financial institutions were set to reach target and increase recovery. The municipalities and the NGOs started to assist the LIG to mobilize and develop organizations, instil self-help skills, and increase access to credit (Rahman, 1999).

Government's role as housing provider was not suitable for the developing countries (Abbott, 2002). The idea of the private market providing low-income housing, reducing the state's involvement, was accepted in the late 1980s. Agencies started to encourage supporting enhancement of economic efficiency and social effectiveness, through deregulation and institutional development of the land and housing markets (Kimm, 1987). By the 1990s, focus shifted to holistic development to take account of such issues. As more reforms were needed to sustain benefits, strategies were set to develop finance further, reduce backlogs, increase basic infrastructure, reform land management and policy to accelerate housing supply, provide targeted subsidies, and set institutions (Pugh, 2000).

The World Bank (1993) proposed the enablement of private markets for increasing housing production to meet the 'requirements of all by 2000', echoed by the UNCHS's target of 'adequate shelter and sustainable human settlements'. While the policy and enablement framework searched for social-relevance and sustainability, state facilitated participation and partnership emerged as a mode. Many governments reduced their 'providers' role, and replaced numbered target with building capacity (Tippel, 1994), through private sector participation. Such supports increase production, achieve adequate shelter and SD (UNCHS, 2005), and enhance economic efficiency, social effectiveness, and capability to solve own housing problems. The next section presents typical examples of slum improvement from Nairobi and Kolkata.

### **Slum Improvement Examples**

The World Bank funded two large initiatives for upgrading Kenyan slums during 1978–91. Another such project funded by Germany during 1992–99 was resisted by absentee landlords and residents. Since the 1990s, several NGOs undertook smaller upgrading projects. The government in 2002 established legislation and finance instruments to upgrade slums. It disburses funds for slum upgrading, low-cost housing and infrastructure through the Slum Upgrading Department.

The UNCHS-launched Kenya Slum Upgrading Project in 2002 in order to secure tenure, improve housing standards and the physical and social infrastructure, was delayed by absentee landlords through court case. Construction of several high-rise buildings in East Soweto started in 2012. The 'Kibera Integrated Water, Sanitation and Waste Management Project', completed in 2010, is considered as the first successful infrastructure and services upgrade initiative (UNCHS, 2014). Kibera, Kenya's largest and one of the world's most notorious informal settlements, is also the most unsanitary and dense slum in Africa where nearly 300,000 people live on just 256 ha of public land. The living conditions in Kibera, caused by government indifference, remained unchanged for half a century. The Slum Upgrading Project improved basic urban services, e.g. road access, sanitation, and water supply, managed by local groups registered as community-based organizations (CBO) formed by consensus.

Lüthi (2016) identified lack of involvement of slum-dwellers at the planning stages, political interference by landlords, lack of coordination, high overhead cost, and inadequate experience of the municipalities as the challenges such interventions faced. There are, however, lessons to be learnt

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too. Slum improvements should allow community participation in planning, implementation, monitoring and management, through consultation, representation, and negotiating cost-sharing. Officials and staff lacking knowledge and skills to implement such projects require training. The slum-dwellers benefit when resources are spent to upgrade water, sanitation and transport services before tackling complex and political issues like resettlement or tenure security. Ensuring irregular communication and stakeholders' sensitization is essential to a process avoiding disruptions by interest groups.

In Kolkata, the 1950s Slum Clearance projects followed by the Slum Redevelopment created resentment among the slum-dwellers. From the early 1970s the government took more humane approach through a model of providing physical infrastructures like latrines, water supply, drainage, paved roads, street lighting, and garbage bins to 2 million slum-dwellers. Halder, et al., (2016) identified its two limitations: no provision for maintenance, and ignoring the healthcare facilities and community development through income generation, primary education, or social amenities that affected a comprehensive development. Hence, DFID funded the Calcutta Slum Improvement Project (CSIP) to improve slums by addressing the needs and aspirations of the slum-dwellers. It had physical infrastructures, healthcare services, community development, and training and evaluation components. Although CSIP benefited a large number of poor, little linkage was built with municipalities, and operations and maintenance of community assets remained a concern. Participation in project planning and implementation was on paper only as political leaders with own motives were sitting in committees formed to take over the project.

The next initiative, was an integrated approach for developing and providing the poor access to physical and social facilities through their participation in all stages. Besides an equitable access to services, capacity building and improved financial management were to ensure self-sufficiency for the municipalities to inherit the project. The latest intervention, the National Urban Renewal Mission, provided the local bodies opportunities and access to funds to carry out projects incorporated in the Draft Development Plan (DDP) prepared in KUSP. Halder et al. (2016) identified positive aspects in it financial incentives making municipalities competitive regarding efficiency, and preparation of DDP, pre-required for funds.

However, the participatory components could be better implemented by institutionalizing the Committee(s) and making those parts of management teams, which could provide basic services to the urban poor. Also, the NGOs

could catalyze the proposed development (Halder, et al., 2016). Participation of the slum-dwellers alone would not sustain the project or enable the local bodies, given the budget constraints and the needs of the poor. But according to Halder, et al., (2016), they should be guided and the projects should be vetted by the experts to make those feasible. The participatory public expenditure management used began with budget formulation with citizens' participation, and ended with performance monitoring referring to the funds spent.

### **Sustainability Components**

The above shows participation of communities in decision-making, project planning, design and implementation, managing projects, resources and infrastructure, and identifying need and setting priority, empowerment and capacity building as some of the indicators of project sustainability. A major MDG Strategy for SD is to make development projects effective by using community empowerment through participatory decision-making (Narayan, and Shah, 2000). LIG settlements can be improved by vesting resources and decision-making to the dwellers which can develop, manage and sustain resource (Patrick and Scott 2011; Rondinelli, 2006) and adopt transparent and accountable ways for good governance.

The international bodies support participation by integrating the informal sector in decision-making, shifting focus from centralized to community-based development; the Recife Declaration too stressed the importance of this. The UN (2005) endorsed a bottom-up approach, local capacity building, and institutional strengthening to alleviate poverty. The 1976 Habitat Conference suggested that stakeholders' representatives should identify and transform priorities into action plans. The 1992 Brown Agenda for SD also called for participatory environmental improvement focussed on community participation, partnership, accountability, etc. Agyeman, et al., (1996) advised to take a concerted local level action to implement that.

Identifying lack of relevant institutions and participatory capacities, municipalities were urged to mobilise community involvement in accountable planning and developments (Roseland, 2000). That the CBOs can facilitate community's participation and access to policy and collective decision-making in authorities (Watt et al., 2000; Clark et al., 2007), and mediate between empowerment and changes, has academic support (Huchzermeyer, 1999). Sara and Katz (1997) established participatory approaches as means to improve community ownership needed for SD. Mansuri and Rao (2003) found that community engagements lead to

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program sustainability. Drakakis-Smith (1981) observed that involvement in project design and implementation brings commitment and community connectedness.

Participation eliminates control over development activities by the elite and politicians (Patrick and Scott, 2011). It enhances interactions, social relations, control and confidence by fostering community welfare, healthcare and women skill (Rovai, 2002). Participation can be used to generate action plans, partnership and self-help, and define stakeholders' responsibilities. It is also a cost effective and sustainable means that can be used to identify and address community's concern (Nelson and Prilleltensky, 2005). Participation encourages cooperation for community development. The Sri Lanka Million Houses Program is an example where the community and the city jointly took decisions and defined actions. However, despite the support to community participation, it was not appreciated universally earlier (Abbot, 2002).

Participation, training and advocacy lead to empowerment and capacity building linked to sustainability (Fetterman, 2007). Empowerment provides people scope to participate in a capacity building process, enables them to transform choices to favourable outcomes (Alsop and Heinsohn 2005), and improve the quality of lives (Sidorenko, 2006). Several authors (Bennet, 2002; Bebbington, et al. 2006; Saegaert, 2006) treated empowerment as a tool to gain expertise, self-confidence and control over local developments, enhance community capacities and assets to an extent of influencing decisions by local bodies and policy makers, and in bringing inclusion to overcome the livelihood barriers.

Similarly, Clark, et al., (2007) identified importance of empowerment in development policies. Laverack (2006) and Zimmerman (2000) identified participation, capability and accountability as interlinked elements of empowerment. Sustainability also depends on ability to deliver services by government bodies and groups (Chavis, 2001). Such participatory community-based initiatives will help citizens to improve their capabilities for collective action, leading to significant development outcomes like access to basic necessities and improved quality of life, and increasing equality (Gutberlet, 2009). Capacity-building increases community abilities to define, assess and address the issues related to its members (Laverack, 2006).

With capacity built, communities can deploy their resources and skills in order to address local problems, in addition to utilising technical know-how of the development agencies. These include efficiency and entrepreneurship of private enterprises, mediation between the HHs and agencies by the

CBOs providing management expertise, and self-help experience and local know-how of the participants (Pugh, 2000). The problem of exploiting environmental improvements can be resolved by a participatory and transparent management by assigning defined responsibilities.

## **URBAN LOW-INCOME HOUSING IN BANGLADESH**

Urbanization in Bangladesh has been causing environmental deterioration by outpacing the housing services, infrastructure and job provisions, and making lives difficult for the LIGs. The 2011 census shows urban population in Bangladesh to be 42.73 million (28.4% of total); there will be another 70 million added to that during this century. Dhaka, the capital city with 16 million people and tenfold growth in last 3 decades, suffers the most (Streatfield and Karar, 2008). 55% of about 600,000 people added annually to it are destitute migrants (Lall, 2006). Three-quarters of increased population in Dhaka end up in the slums (Streatfield and Karar, 2008). The current rate of annual growth of the six metropolitan areas is 3.5%; up to 55% live in the slums and squatter settlements in those cities (Rahman, 2001). Slums housed 37.4% of Dhaka's population in 2003 (Le Blanc and Buckley, 2006). These feature poverty, high density, lack of infrastructure and utilities, illiteracy, crime, environmental and psychological degradation, etc. (IDSS, et al., 1996; UNCHS, 2003). These grow on waste dumps, open drains and sewers, low land, embankments, and along rail lines, 65% of which get inundated during rain (UNCHS, 2003). Most slum-dwellers are employed in the informal sector, featured by low wages, long working hours and insecurity (Le Blanc, et al., 2006). Only 19% of HHs earning less than US\$ 1.5 a day go to modern clinics (Rashid and Hussain, 2006); 9% of the poorest quintile uses a sewerage system; only 2.5% of them live within 100 m of a toilet; 70% of poor do not have access to piped water and 90% to sewerage (Lall, 2006). Less than 20% of HHs is satisfied with the basic services; among the poor in Dhaka less than 5% was satisfied (Rashid and Hussain, 2006). Most utility agencies do not serve the slums; these manage low quality limited services from a mix of government, NGOs and individual sources, often illegally.

### **Public Housing**

Policies and institutions in Bangladesh failed to facilitate the LIG an easy access to land and shelter. Cost and scarcity of resources, particularly land, and lack of access to finance and power marginalized them in the housing market. Planned development and land subdivision by government agencies and real-estate developers were availed by the higher echelon. As the government failed to address shelter and socio-



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economic needs of the poor in a large scale, and assist others to supplement its efforts, many depended on the informal sector. This sector produced 85% of 1 million dwellings in Dhaka (Islam and Shafi, 2008). Rahman, (2010) identified gaps between the government policies and programs due to a lack in its commitment and dependence on external funds. Investment was left to the profit-driven private sector as the government did not consider housing's developmental role.

Despite the government admitting that the programs were ineffective, the subsidized sites-and-services plots turned posh residential areas and staff housing remain dominant public housing type. Concentrated mainly in Dhaka where around 100,000 public sector units serve less than 10% of the population (Islam and Shafi, 2008), these are inadequate compared to the huge requirement. Annually over 83,000 housing units were needed in Dhaka in the mid-1990s, which was a third of the total urban area requirement. Dhaka Structure Plan 1997 estimated a requirement of 2.34 million new housing units for a period till 2025 in the city; half of those were for the LIG. The UNCHS updated it to 120,000 units in Dhaka and 400,000 units in other urban areas in 2003.

The government readmitted its inability to meet the housing demand with meagre resources in the 1990-95 Plan. The 1978-80 Two Year Plan mentioned that the service and finance agencies catered a lot for the rich, shunning attention and investment for the others. The next Plan (1980-85) admitted that conventional approach couldn't solve the huge problems. Selectivity ought to be practiced by using own resources to ease the shortage, increase the stock by providing plots, utilities and easy-term finance, and reduce the residential entitlement to optimize resource-usage. The 1985-90 Plan opined that the policy of developing posh enclaves amidst the slums was to be reversed by catering to the others needs too. Hence the Plan advocated a gradual intervention by the government to plan and develop land, infrastructures and services, arrange finance, and stimulate others' participation. The next Plan (1995-2000) aimed to improve the life quality of the people and their working environment by providing adequate infrastructures, loans and other services. Thus the Slum Improvement Program introduced several consecutive projects that aimed at empowerment and capacity building in the urban slums through participation, and social, economic and environmental development.

## Poverty Situation

TW (2013) noted that of its 150 million people, Bangladesh had reduced the number living in poverty from 63 million in 2000 to 46 million in 2010. Poverty reduction plans in Bangladesh have traditionally focused on the rural areas though a substantial number of poor live in its urban areas. There are about 9.4 million urban poor in Bangladesh (21.3% of all urban) (BBS, 2010). Poverty is linked to landlessness and limited opportunities for education and employment, especially for women and girls. The housing situation of urban poor, or slum-dwellers, lacking basic services, is appalling. Consequently they suffer from crowding, insecurity, and criminal activities. The low skilled workers have little scope of increasing income, access education or health services making accumulation of human capital difficult.

BBS, (2010) shows that poverty in Bangladesh was declining at a rate of 2.47% annually since 1991; the target of halving the percentage of poor was achieved by 2012. It met several targets of the MDGs two years ahead (TW, 2013), including those of reducing poverty gap and attaining gender parity in education. Yet many poor HHs cannot afford proper meals, and mothers and children mostly suffer from malnutrition. Unaffordable health cost further aggravates the problem, and affects education and income generation. Employment generation especially for women, school completion, adult literacy rates, etc. are areas requiring attention now to sustain the overall improvement in the living conditions.

## Public Housing and Slums

States seldom tolerate illegal and irregular housing (Abbott, 2002), and resort to their destruction; the Bangladesh government is no exception. At least 135 notable cases of eviction occurred in Dhaka in quarter of a century since 1975 (Ahmed, 2007), which still prevails. Eviction ignores the socio-economic problems causing the slums, and redistribute poverty to less valuable area (Rahman, 2001). Instead upgrading of the slums was suggested in various government documents, e.g. the 1993 National Housing Policy. Few shelter schemes by the NGOs showed the poor's capability to improve housing that increases productivity and income; these are affected by lack of land ownership (Rahman, 1999).

In the 1990s, the government with the support of international agencies initiated various slum improvement projects implemented mainly by the Local Government Engineering Department (LGED), some municipalities, government agencies and NGOs. These included IG, infrastructure improvements, skill, hygiene and nutrition training, and

community mobilization (Rahman, 1999). The projects alleviated the unhygienic and unsanitary conditions of some slums by constructing drains and sewage lines, footpaths, latrines, garbage bins, tube wells, flood protection, and street lighting. However, Chowdhury and Amin (2006) found that piecemeal implementation barring proper assessment, staffing and coordination contribute little and affect the environment adversely.

Most of the early public housing programs in Bangladesh failed to reach number targets (Rahman, 2010); despite having a huge LIG, these mainly served the privileged ones. Some changes in government approach only began as directed by the international financing agencies. These [slum improvement] projects came out of the notion of ‘shelter’ as an ‘end product’. The government gradually shifted from the ‘provider’ role, and took up social, economic, environmental and institutional development projects for the urban poor. These are building capacity of the LIG to make and sustain housing improvements.

## SLUM IMPROVEMENT PROGRAM IN BANGLADESH

The 'First Urban Project' in Bangladesh, based on a UNICEF-funded study of poor in four large cities, was implemented by the Department of Social Services during 1982–1985. It aimed to provide IG loans and healthcare to women, establish day-care centres, and build sanitation infrastructure in few

slums. As progress was slow due to lack of experience in delivering urban services, the LGED was asked to co-ordinate the projects towards the end, and strengthen inter-agency collaboration both at local and national levels. Since then, it has implemented a number of slum improvement projects covering various components (Table 01).

These experiences led to the Slum Improvement Project (SIP), providing basic services and socio-economic facilities by combining community development and health education with physical improvements and income generation. It accepted that physical improvement could only be sustained by human development. The SIP, started as a pilot project in five towns with UNICEF-funding, covered 7100 HHs in 16 towns in the first phase (1985–88). The project components particularly targeted the women. It established tube-wells, latrines, footpath, drains, garbage bins, street lights, satellite schools, and skill training. The second phase (1988–93) modified the plan to expand coverage (15,000 HHs in 25 towns), and be more efficient. It linked basic services to capacity building when extended further in 1996, and later revised into Urban Basic Service Delivery (UBSD) project.

Country cooperation frameworks of UN agencies in the 1990s set the priorities and the objectives of the Government— to alleviate poverty by raising the income level and living conditions, and maximize impact of human development through environmental management,

**Table-1:** Summary of Slum Improvement Projects in Bangladesh, 1985-2015.

S. No.	Name of Project	Funding Agency	Project Duration	Slum Improvement Cost (US\$)	No. of Municipalities	No. of City Corps.	No. of Slums	No. of Families
1	Slum Improvement Project (SIP)	UNICEF	1985-88	5.9	5		25	2000
2	Slum Improvement Project-II Secondary Town Infrastructure	UNICEF	1988-96	243.4	21	4	200	43000
3	Development Project-I (STIDP) Secondary Town Infrastructure	ADB	1992-97	37.08	10		43	225
4	Development Project-II Secondary Towns Integrated Food	ADB	1996-01	77.2	22		100	10000
5	Protection Project-II (STIFPP)	ADB	1992-98	36.47	5	1	49	8356
6	Urban Basic Service Delivery Project	UNICEF	1996-01	342	0	4		165000
7	Community Empowerment for Urban Poverty Alleviation	UNDP	1996-01	603	0	4		120000
8	Municipal Services Project (Slum Component)	WB	1995-00		14	2		0
9	Urban Poverty Reduction Project Local Partnerships for Urban Poverty	ADB UNCHS/	1998-02	0	0	1	0	0
10	Alleviation Project (LPUPAP)	UNDP	2000-07		7	4	0	0
11	Urban Partnership for Poverty Reduction (UPPR)	UNDP/ UNCHS	2008-15	120 million	23	0	0	0

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employment generation, women advancement and good governance. The UNDP supported the Local Partnerships for Urban Poverty Alleviation (LPUPA) project during 1999-2004. It aimed at implementing community-based activities to upgrade living, economic and social conditions of the poor in 12 towns by enabling decision-making, in addition to capacity building of local government and officials.

While UBSD addressed the service needs, LPUPA assisted the communities to alleviate poverty through partnership, women empowerment, and participation. As UNICEF-funded Support for Basic Services to Urban Areas (SBSUA) project was similar, the second phases of LPUPA and SBSUA were merged to run till June, 2007. The LGED, implemented the program with technical assistance from the UNCHS, and handled the Community Development Fund and Poverty Alleviation Fund. Phase I of it included supply of basic facilities, poverty alleviation, empowerment and capacity building; Phase II added saving and credit, education and hygiene to sustain the project benefits. These were delivered through Community Development Committees (CDCs), which organized the credit groups to handle micro-credit.

In 2008, the Urban Partnerships for Poverty Reduction (UPPR) project initiated in 23 towns was funded by UNDP in partnership with the Government of Bangladesh and UNCHS. This aimed to improve the livelihoods and living conditions of a third (3 million) of all urban poor, and eliminate their poverty by 2015. Activities included improving the settlements physically, enhancing socio-economic scopes, and developing savings and credit groups (SCGs). UPPR also aimed at developing strategies to enable the poor defeat poverty and be socially integrated through capacity building and participation, and empower communities to make decisions, implement solutions, and manage development.

The success of these projects hinged on strategies regarding community organization, inter-agency collaboration, capacity of municipalities to deal with the poor, social and physical network, accessibility, women and children, and rights. A community-based approach was adopted to facilitate primary education, health education, etc. The environmental upgrading generally improved the areas; increased income made more investment available to improve living conditions. The UNDP et al. (2007) found the project slums improving in terms of family headship, education, occupation, health, housing, etc.

### **Governance**

In the slum improvement projects, about 20 mainly women, form Primary Groups (PGs), which in turn form the CDCs, representing up to 300 HHs. Several CDCs form Cluster Committees to share experiences and lessons through

networks. These clusters are organized in Federations to provide training, assist in setting partnerships and linkages, and mobilize resources. These also oversee the CDCs and SCGs, advocate pro-poor planning, and monitor resource distribution. Duality in these committees with the Project Implementation Committees (PICs) in SIP created problems. The elected Commissioners represented the community in municipal activities. But with no executive power in the committees, they became non-committed. This often hindered the community involvement in the economic and environmental activities.

Ghafur (2000) found that the SIP-beneficiaries critical of municipality's role were oblivious of participation. The isolation and deprivation that result from excluding HHs from the decision-making, made them non-enthusiastic to appropriate available development opportunities. This inhibited their 'participation'. Some of these difficulties were overcome later through participatory decision making. Menon (1998) termed the SIP as a community based effort; yet these lacked much participation by the beneficiaries. Decisions were influenced by some HHs and committee members. For example, site characteristics or residents' opinion and needs were not considered in laying out and locating infrastructure. The elected members and local leaders were to assist the CDCs in developing infrastructure, and linking the LIG to the mainstream development. However, financial motivation of local politicians made resource appropriation difficult (Ghafur, 2000).

'Participatory Identification of the Poor' method was used in the UPPR to avoid their disenfranchisement with the authority adopting standard criteria. Each community discusses and agrees upon various criteria to identify needs and categorize the HHs. Adherence to guidelines, monitored by the government and funding agencies, achieved some accountability. The members had nominal voice as the Chairman with executive power was inclined to safeguard the authority's interest. The formal manner in which meetings were conducted disadvantaged the less literate members.

### **Capacity Building and Empowerment**

Capacity building initiatives in the projects included training of representatives, government staff and community leaders (field exposure, group discussion, construction training and guidance, finance and contract literacy, etc.). SODEV (1999) identified inadequate support to staff, and rigid criteria for implementation, infrastructure standards and selection procedure as problems in the SIP. Some agencies had no experience of delivering grassroots services. But defined roles and responsibilities, experience of working together, and inter-agency collaboration were well set by 1999 when

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the LPUPA was started. The UPPR tried to overcome these by building some capacity.

The Community Organizers (COs) brought about community participation and organization; but the authority ignored their performance and commitment (SODEV, 1999). Moreover, slum hierarchy and group dynamics often prevented them from discerning community's needs and wishes, and succumbing to the leaders' influence. Prejudices and lack of social skills made the COs initially unable to communicate with the target group. This was overcome by going through the pilot projects learning to engage the communities and enlist their trust (Rahman, 1999). Their capacity to organize communities, supervise activities, disseminate information, make and implement plan, and set target and objectives was also increased through training.

By getting involved in the planning and execution, the community members developed skills transferable to employment. But the SIP ignored HHs' ability to identify their own problems; this was gradually incorporated by encouraging greater participation, for example in the CDCs that identified needs and prepared Community Action Plans (CAPs) on improving living conditions. 615 CDCs, 8,000 primary groups and 145,000 families implemented various CAPs components (2007). Each CDC also received support to prepare and manage construction contracts. Such exercises help community members realize relevant capacity and the right, and create leadership scope.

The Community Health Workers (CHWs), who played a crucial role in providing health awareness and education, required more training, resources and incentives to be effective (SODEV, 1999). Health awareness grew considerably, evident in reduced child mortality (UPPR, 2015). However, the management capability at various levels was not coping with the rate of program expansion. Maintenance plan, maintenance fund and skilled manpower would increase sustainability. Apprenticeship gave hope and reduced criminal propensity among the unemployed youth. In UPPR, 65,234 beneficiaries received skill development training till June 2014 (UPPR, 2015); 85% of those found regular jobs within 6 months. Construction related jobs and within-slums employments as community organizer, caretaker, etc. were also created.

95% members in committees and credit groups were women, who were successful more often as leaders (holding 91% of positions) (UPPR, 2015). Empowering the women having voice in decision-making raised their social status, and reduced abuse. They could construct basic amenities, participate in economic activities, enforce health habits, and contribute in awareness building, literacy, resource management, etc. Later projects recognized that with

contributions to incomes and child rearing, women were the socio-economic change agents.

### **Finance**

The projects recognized the role of finance as the poor's lack of access to banks made accumulation of savings for generating income or improving living difficult. Hence the communities were enabled to establish SCGs linked to the PGs to mobilize resources, generate income, and increase assets. Unlike in micro-credit schemes, SCGs in UPPR use their own savings, and finance microenterprise activities. Small business grants creating employment opportunities led to confidence building. A share of the profits from the schemes was used to cover costs for community empowerment.

However, some schemes were ill-managed, meetings and record keeping were irregular, and most members were financially illiterate. Though small loans provided initial impetus, the SIP borrowers were not helped after having established creditability and improving financial situation. Home improvement was not possible with small loans, and waiting time was long. Moreover, committee members and leaders could influence loan sanctioning. Hence many slum-dwellers did not take loans which affected potential entrepreneurs. However, credit program had 90% recovery record. Of over 395,000 members in UPPR program alone, 30% got small enterprise grants from US\$ 7.6 m accumulated in the fund (UPPR, 2015).

### **Health and Education**

Identified by Menon (1998) as one area of success of the SIP that owed to education and awareness. The CHWs linked to the National Health Program were facilitating the planning, implementation and monitoring of child immunization, Vitamin distribution, control of water-borne diseases, family planning, breast feeding and growth monitoring. Components like distributing various supplements were targeted at women, girls and children as malnutrition is tied to low social status of women (TW, 2013). Some projects provided services like training, workshops and counseling on nutrition, breastfeeding and hygiene practices. Subsidized drinking water and sanitary latrines were expected to reduce work absenteeism, and enhance productivity and income (SODEV, 1999). The UPPR ran a scheme to assist food producing HHs, and arrange for the training and skill sharing through the CDCs. These helped them to adopt good practices and improve health and income.

Schooling of children, especially girls, is threatened by the absence of social safety. Other than poverty, girls are affected



by early marriages. Although primary education is free in Bangladesh, many cannot afford additional expenses, and dropout. This results into poor human capital formation and inability to break the poverty cycle. UPPR provided grants to 111,146 vulnerable pupils to complete primary schooling (UPPR, 2015). It also undertook initiatives like advocacy, youth development, and early marriage, early pregnancy, dowry, and gender violence advocacy.

### Physical Improvements

Security of tenure plays a crucial role in poverty reduction by integrating the urban poor in socio-economic activities. It removes fear of eviction and helped poor families to exploit opportunities, for example using land titles as loan collateral, which also serve as a base to pursue rights to health services, education, social well-being, property, and for improving housing conditions (Peattie, 1987). UPPR used Settlement Land Mapping (SLM) where slum-dwellers mark vacant land. Then trained COs assessed and categorized the poverty level of the settlements by using 16 indicators. This can be used to select type of assistance, and plan slum rehabilitation. UPPR got the SLMs endorsed by the local government institutions to integrate those in the Town Plans, and include the slum-dwellers in government programs. It also developed alternative to eviction to improve tenure security. In Gopalganj, 24 poor families were living as informal tenants for over 30 years on a waterlogged polluted area with no toilets and water supply. Assisted by the UPPR, they negotiated with the landlord to rearrange layout on the same land and improve the settlement in exchange for a 20 years lease.

Targets of building safe and affordable utilities for improving the environment and hygiene situation were overwhelmingly met. Against a target of 173,119 latrines, it had set up 186,401 by mid-2014. The UPPR targeted to supply water to 195,433 HHs, and till June 2014, it had achieved 126% of it. Against a target of serving 400,225 HHs with drains and footpaths, it reached 470,107 HHs (UPPR, 2015). Almost all the tube wells in the UPPR-slums were made arsenic free. Paved ways and drains were built too UPPR ran a Settlement Improvement Fund (SIF) to support physical improvements. The CDCs contracted out works identified in the CAPs, like drains and footpaths extension, and construction of latrines and reservoirs. Such contracts stimulated local economies by supporting manufacturers and businesses, and achieved value for money; it saved US\$ 4.7 m up to 2012 through project costs 15.5% below-standard-government-rates. A sense of ownership over the output results in communities ensuring construction and maintenance quality; trained beneficiaries could maintain all the facilities themselves. Moreover, infrastructure development and service delivery

identified by the communities themselves met the needs and priorities, especially of the vulnerable groups (Figures 1 and 2).

Through the Socio-Economic Fund (SEF), UPPR supported activities that improve the conditions of urban poor, like apprenticeships and grants for small business, to keep girls in school, and for food production. The project also facilitated communities to access support to housing and housing finance. It has helped them in two cities to establish a revolving Housing Development Fund (HDF) that allowed the poor to pool their savings to be used for various housing development activities.

### DISCUSSION

Bangladesh, instead of waiting for needed resources and technology, should promote sensitive and efficient human development, taking collective responses and social responsibility through poverty reduction, job creation, environmental sustainability, economic enhancement, and improved living. It should build individual capabilities to



**Figure-1:** Tube Well and clean bathing spot in a slum.  
Source: Architect Ahsan Feroze



**Figure-2:** Project Officials meeting Slum Representatives in Chandpur.  
Source: Architect Ahsan Feroze

convert resources into desirable outcome that can be transmitted across generations. Amidst reconstruction priorities in war-torn country after independence in 1971, short-term strategies like slum improvement, sites-and-services, and minimum shelters to house the LIGs were included in the National Plans. Though unsustainable, ready houses for select groups remained as a popular public housing component (Rahman, 2010). Improving the slum environment started in the late-1980s.

The IG skill training and loans in the program encouraged the recipients to become home-based entrepreneurs. This was sustained by the multiplier effect on the socio-economic and human resource situation (affordable housing, environmental improvement, and contribution to human and labour development, stable income growth, development of social capital, empowerment, etc.). The program utilized the expertise of agencies, and included stakeholders aimed at participation and capacity building, and strengthening local bodies.

Capital and capacity built in the projects (organizations, leadership, technical and managerial ability, various awareness, participatory experience, savings etc.) initiated a social change by advancing socio-economic equity, and exploiting the capacity for transition using own resources. The projects limitedly achieved environmental improvements with equitable access to utilities, health services, opportunities and skill development. These helped to promote economic growth, maintain social inclusion, and minimize environmental impact towards SD. These also met the sustainability criteria Silvius (2012) put: harmonizing social, environmental and economic interests, consuming income, transparency and accountability, and personal values and ethics.

Ghafur, (2000) apprehended that interventions in the slums would remain crucial as the communities could not instantly become self-sufficient, mobilize resources and acquire technical knowledge to design and implement different projects. Given the resource scarcity and lack of technical knowledge, dependence on external resources and technical assistance would continue. He advocated for the Poor's entitlement to state patronage to improve their housing and livelihood. But patronage kills capabilities of the LIG, forces dependence on external assistance, making housing unsustainable in the long run. However, with the introduction of participatory approaches the post-1999 projects increased the community's ability to make decisions.

Ghafur, (2000) refuted the assumption that the SIP-beneficiaries and their settlements were socio-economically homogenous, and adherence to the guidelines would ensure

a good performance (Figure 3). Efforts to build staff capability, motivate and organize the beneficiaries, and convince the slum-owners were less effective as there was no time taken to analyse, assimilate, and apply the learning from the pilot projects. Also rigid procedure did not fit contextual peculiarities of randomly selected slums; some worse or larger ones were left out. Though each project continued adding components, none included the squatter settlements mainly on landownership ground.

Tenure security enhances the affordability of incremental upgrading fitting the circumstances of the poor. This increases housing supply, and reduces the government's burden. Grass-root participation empowering the community to upgrade the slums and own assets make a process accountable. Participatory decision-making, transparent management, and institutional and organizational capabilities could bring good governance. However, the program was not much successful on participation due to initial top-down approach.

The program did not utilize the target group's capabilities to make 'in-situ upgrading' and cost-effective solutions fitting their socio-economic needs, use self-help labour and other resources, or take advantage of increased income and

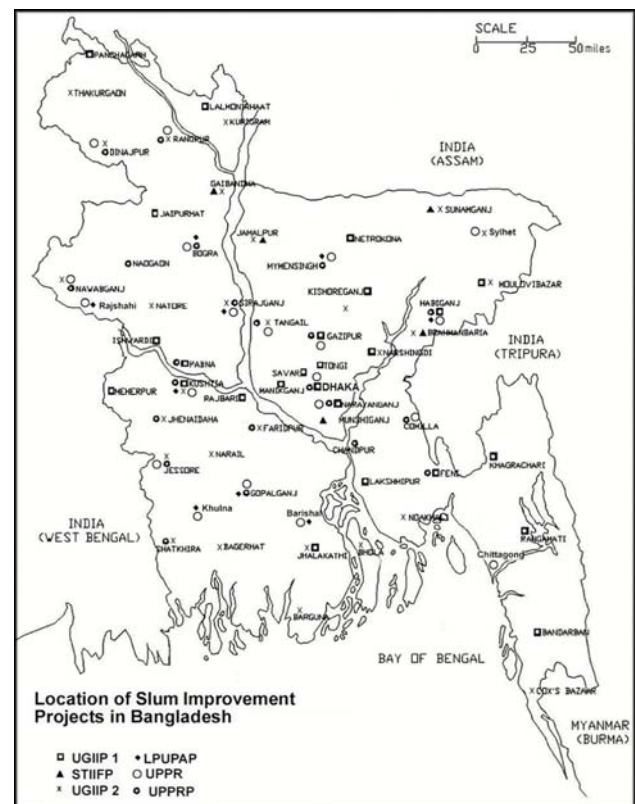


Figure-3: Map of Bangladesh showing the Location of the Slum Improvement Project.

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creditability. These neither enhanced freedom of individuals nor ensured their full participation, barring the development of environmentally sustainable practices. Except for enhancing women's role and status, these could not optimize human potential, use resources with low ecological impact, or pursue social equity. However, the later projects based on lessons of previous ones tried to overcome these.

Data suggest positive effects of awareness, capacity building, skill training, credit, women's emancipation, and environmental and physical improvements of the shelters; though more need to be done. These were available only from LGED or assigned reviewers. Continuation of a project often depended on performance measured by numerical targets. But the attributes like capacity building and empowerment are not measurable by numbers only. The evaluation should have focussed on the effects of the said achievements. Also changes in the conditions of the beneficiaries, for example their health and hygiene situations, were not measured over a period and compared with pre-project situations.

The LGED undertakes infrastructure development in smaller towns. Despite a good rapport with the government and funding agencies, it has no jurisdiction over Dhaka city or mandate for slum improvement. Hence its domination often caused resentments among multiple authorities in Dhaka city (Rahman, 1999). LGED officials being mostly civil engineers preferred physical construction over the human aspects. Within the municipalities, only few reluctant personnel received capacity building training.

## CONCLUSION

Against a migration-driven 2.2% per annum urbanization in Bangladesh, the slum population is growing at 7%. Recent retarding rate owes to the expanding microcredit facilities in rural areas (Streatfield and Karar, 2008). This suggests that income generation and environmental upgrading is a feasible way to lift millions of slum-dwellers out of poverty, and provide them a decent place for living towards further prosperity. Hence a shift from providing direct shelter in the first two post-Independence decades to capacity building and empowerment through participation and income generation, and by enhancing sanitation, health and education etc. has been a positive move. Though primarily driven by the international agencies, the Slum Improvement Program can be sustained through participation of all stakeholders and empowerment of the slum-dwellers.

Participation of all in achieving sustainability is a necessary condition for development, among others by enhancing human capabilities with better health and education. This would reinforce the virtuous cycle of economic growth and human development, and allow institutions achieving a higher standard of living (Costantini and Monni 2008). While cities frequently adopt sustainability rhetoric, gaps exist in their operations (Jepson, 2007). Moving toward a sustainable society requires more than adjustments: create healthy, sustainable, pleasant and satisfying communities, make efficient use of urban space, multiply social capital, and mobilize citizens and their governments toward these ends. Sustainability, an attack on conventional thinking and practice, and a framework for urban future, provides an optimistic alternative. The global audience has pinned its hopes on this to solve the societal and environmental problems (Roseland, 2000). Though, policies for sustainable housing for the poor alone may not overcome the urban problems, without them no solution can be found.

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# EMERGING CHALLENGES IN LAND USE REGULATION SYSTEM: A CASE STUDY OF MURREE, PAKISTAN

*Syed Mujahid Hussain\**  
*Abdul Waheed\*\**  
*Malik Naeem Asghar\*\*\**

## ABSTRACT

Most of the cities of Pakistan have expanded arbitrarily. Among these cities several had some sort of development plans, to guide the city's future growth. Due to one reason or the other, the city developments have not taken shape as per plans. However, development projects as per these plans were randomly taken up by Authorities, which can be termed as partial implementation of Plans. Consequently, these projects provide temporary relief regarding some specific problems of that city, but at the same time triggered numerous interrelated issues for which local authorities were not pre-prepared. A need is being felt for plan oriented development rather than project oriented development, for which lot is needed in policy and strategy formulation, institutional strengthening and implementation. This paper aims at appraising the land use regulation system of Murree city, that has expanded in the absence of any preconceived plan. The success it has achieved with prevailing system, with respect to existing land use pattern and its implications for stakeholders, especially tourists and local residents, all relate to the research query. Findings of the research reveal that the growth of Murree has been without any specific pattern or pre-conceived plan for over three decades. Murree lacks basic amenities of life in qualitative and quantitative terms. In this regard, the most crucial aspect relates to lack of balance in distribution of neighborhood and sub-neighborhood level facilities. Due to this centralization of amenities, parking is becoming one of the major problem for local residents and the floating population as well. Building byelaws and zoning regulations of Murree also need to be adapted as per local conditions.

**Keywords:** Land Use Regulation, Land Use Challenges, Development Planning, Murree City

## INTRODUCTION

Land use planning is a critical part of the physical development process of a city. It is a regulation system through which people are motivated to choose between the land uses options that can fulfill their socio-economic needs, as well as ensure sustainable physical development for the area (UNFAO, 1996). The range of land use regulation system may vary from country to country depending upon area coverage, statutory framework, prevailing policies, institutional setup, resources, character of city and other urban issues specific to that particular city. Similarly, the nature of problems related to land use regulation and its repercussions have been different in developed and developing world. In the developed world, the problems caused by expansion of cities are pressing, but still manageable. On the other hand, in the case of the developing countries the land use plans are usually part of Master Plans or of some other forms of development plan, but are rarely implemented owing to various reasons (UN Habitat, 2015). In this scenario, the land use pattern takes a disorganized form, rather than a controlled and guided form, resulting in undue urban sprawl and all sorts of urban management and environmental issues. In the developing countries, owing to significant urban population living under poverty line, sizable population is compelled to occupy the areas that are disaster prone (Gencer, 2013). Consequently, when major natural and man induced disasters hit these urban areas it results in colossal damage to human life and property. These events highlight the need for sustainable land use planning

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\* Syed Mujahid Hussain, Urban and Regional Planning Department, National Institute of Transportation, National University of Engineering and Science, Islamabad, Pakistan  
Email correspondence: ikajodzaodo@gmail.com

\*\* Abdul Waheed (Assistant), Assistant Professor, Urban and Regional Planning Department, National Institute of Transportation, National University of Engineering and Science, Islamabad, Pakistan  
Email correspondence: drwaheed@nit.nust.edu.pk

\*\*\* Malik Naeem Asghar, Head of Department, Urban and Regional Planning Department, National Institute of Transportation, National University of Engineering and Science, Islamabad, Pakistan  
Email correspondence: asghar.naeem@nit.nust.edu.pk



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along with main streaming requirements of climatic change adaption and disaster management (World Bank, 2014).

In the present era, urban sustainability is the desirable goal for any planning agency. Various aspects of urban sustainability have been pointed out by researchers (Grimm et al. 2008; Pickett et al. 2011; Liu et al. 2014; Wu 2014). Sustainability of any city can only be ensured if its growth process follows a preconceived plan or at least a thinking process that has been carefully and logically knit through guidelines from international practices, adapted to match local conditions, with generous contribution from stakeholders (Huang, et. al., 2015). Absence of land use planning can result in conversion of rural land into residential commercial and other uses of land and can cause suburban sprawl (López et. al., 2001; Thomlinson and Rivera, 2000).

Modern progress in communication and transportation systems, growing population, and the practically nonexistence of land-use planning regulation has steered the transformation of countless earlier agricultural lands to urban built-up areas and subsequently, suburban sprawl (López et. al., 2001; Thomlinson and Rivera, 2000).

Pakistani cities have experienced large influx of rural population and refugees, in various eras of development (Qadeer, 1997). This mass influx, along with natural increase, has contributed to the undesired haphazard expansion of urban areas. The most affected in this regard are the provincial capitals. Overall, about 40% of country's population is currently residing in urban areas (UN Habitat, 2015).

Most cities of Pakistan, especially in the province of Punjab, have attempted to equip themselves with rules, and regulation and human resources that can be considered as an effort towards development control (Government of Punjab, 2013). But the current situation of most of Pakistani cities today indicates that these efforts have not resulted in much success. Beside other reasons, the dilemma of our cities is that polices and plans structured for urban areas are rarely implemented (UN-Habitat, 2015). The gap between implementation and framing of policies and plans has multiple reasons that may vary from city to city and province to province (Qadeer 1997). In some cases, polices and plans are expert driven and not stakeholder driven, in some other cases the decision makers are not aware of ground realities of a city.

Most Pakistani cities and towns have not had relevant capacity for development that can contribute towards implementation of policies (UN-Habitat, 2015). Some cities are equipped with most of the paraphernalia and prerequisites of implementation, but they lack political will towards

development control, owing to various latent or obvious reasons. In short, the development in cities is either completely uncontrolled or project oriented, rather than plan oriented. Consequently, local governments, instead of exploring their own avenues of revenue generation, lookup to provincial and federal governments for development funds, resulting in projects prioritized by the same (UN-Habitat, 2015).

Murree City was developed without any baseline development plan. When the British took over Punjab in 1849 they started looking for some climatic relief spots for their army and associated personnel. In this regard, they selected Murree as their preferred hill station in 1851 and procured hill tops from local Dhond Tribe. Murree was a pastureland near the village known as Musiari at that time. With logistic support available from a well-established cantonment area of Pindi, it was much easier to develop the hill station, which took its initial form in a very limited time span. In 1851 Commissioner and Deputy Commissioner of Rawalpindi established their offices at Murree. This set a new trend for tourists and businessmen that made their investments in the area. In 1851 Murree Sanatorium Committee was established. In 1853 British Army built barracks for its soldiers in Murree, which started formal housing in the city. The famous Mall Road was developed in 1860, with permission to build only on one side of the road, to preserve the skyline. This building regulation prevailed for about hundred and thirty years. In a short span of time cantonments were built at Kuldana, Gharial, Barian, Kalabagh and Upper and Lower Topa, In the meantime, a number of English medium schools were constructed in the city including Lawrence College, Saint Dynes and Convent of Jesus and Marry. Entrance of the locals was restricted to the Mall Road and this restriction prevailed till independence. The summer capital was later shifted to Shimla, but developments made during British era paved the way for a tourist hub that Murree is today.

The land use expansion of Murree has been dictated by the land ownership pattern and propensity of commercialization to tap the tourism potential of the city. In this regard significant role has been played by the provincial commercialization policy that has safeguarded the interest of investors, rather than the needs of the city (PLG, 2004). As a result Murree has become a city with almost no statutory framework to guide development, with transportation, parking, hierarchy and balance of amenities, ribbon development, environmental concerns, local of institutional capacity, local of disaster management capacity, economic issues as its major challenges.

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This paper aims at appraising the land use regulation system of Murree city that has expanded in the absence of any preconceived plan. The paper also reviews the success Murree has achieved with the prevailing system, with respect to the existing land use pattern and its implications for stakeholders, especially tourists and local residents. Moreover, this paper intends to answer two main questions; firstly it aims to identify the current pattern of the town's existing land use and secondly it aims to review the limitations and challenges faced by its land use regulation system. Through review of two Master Plans (Housing and Physical Development Plan, 1988 and Master Plan to develop Murree as a pollution free town, 2013) that were prepared for Murree in the last twenty eight years, the paper highlights the need for approval and notification of a Master Plan and at the same time suggests certain improvements prior to the Master Plan's approval.

## **METHODOLOGY**

### **Review of Existing Situation**

The reviewing of land use regulation process in Murree involved various steps in order to conclude certain observations regarding the process. As a first step to get insight of the existing situation of land uses in Murree and to identify policy gaps, issues and implications for future growth, a review of demographic and socioeconomic trends, planning policies and urban growth strategy was carried out. Besides this analytical review of land allocation for all land uses such as commercial, residential, open spaces, institutional was done. For this purpose, secondary data regarding land use maps, master plan, reports were collected from City District Government Rawalpindi (CDGR), Rawalpindi Development Authority (RDA), Tehsil Municipal Administration Murree (TMAM), Housing and Physical Planning Department Punjab (H and PPDP), Tourism Development Corporation Punjab (TDCP), Forest Department Murree and Water and Sanitation Authority (WASA).

The primary data collection included structured interviews and sample questionnaire surveys with various stakeholders including CDGR, RDA, TMA, TDCP, Forest Department and NESPAK. A total of twenty structured interviews were conducted from aforementioned officials. A checklist was used to draw information regarding various trends in expansion (especially in disaster prone areas), development control, parking, usage of road by various modes of transport, public transport, environmental degradation and change of land use. Similarly to get public perception and priorities,

questionnaire survey was done. A total of hundred respondents were interviewed. Survey was administered face to face and a random convenience sampling techniques was adopted.

## **RESULT AND DISCUSSION**

With enhanced accessibility to Murree and non-existence of any significant development in other tourist locations, Murree is experiencing immense tourist influx. This influx on one hand offers better economic opportunities to local populations associated with tourism, and on the other hand it is creating problems of administrative and municipal nature for public authorities at Murree. Besides this seasonal pressure on city's existing facilities and infrastructure, it is experiencing natural growth and its need for more tourist related buildings is increasing every year. This has resulted in conversion of more residential land into commercial land and utilization of forest land into urban buildup area. Moreover, non-availability of natural gas supply to Murree for many decades and shortage of gas in winters, has resulted in cutting of trees for heating and cooking purposes. All these factors have contributed to environmental degradation in Murree and loss of its scenic beauty. Absence of efficient and adequate public transport compel tourists to use private or hired vehicles which create huge problem of parking in the main city of Murree, especially during peak tourism season. Murree has a hilly terrain which offers very limited plain pockets to build parking lots. Moreover, narrow roads and ever increasing congestion due to construction of new hotels and other commercial buildings in the central city has further enhanced traffic and parking problems.

Another major problem that has developed for local residents of Murree over the last couple of decades is the massive increase in land prices in the central city, due to conversion of most of the land into commercial land uses. This has left no option for less privileged and rental residents, but to live in hinterland of Murree and commute daily.

Murree city's land use plan was prepared under Master Plan Department in 1988 which got notified at that time but remains not precisely intact after so many years. However, a land use plan was prepared under the project titled 'Master Plan to Develop Murree a Pollution Free Town 2031', which has not been notified till date. Without guidance of an overall plan, the city kept on expanding, without any development strategy or control. This not only contributed to haphazard urban sprawl, it also made the city to lose its balance related to distribution of amenities. All facilities were concentrated in the central city whereas the hinterland was deprived of

the same. In the absence of an efficient local public transport system the commuters faces difficulties to reach their desired destinations of livelihood, education and social life.

Owing to lack of planning and development control in Murree, the population settling in disaster prone areas could not be checked. Studies related to disaster risk assessment were conducted from time to time, but none of the same were made part of building byelaws and zoning regulations. It is high time that some revolutionary steps are taken to prepare and notify an overall development plan for Murree and supplement it with various action plans. Moreover, it is essential that authorities should start looking at Murree as a city and tehsil headquarter, besides it being recognized as a tourism hub. While emphasizing the need for notification of Murree's Master Plans, it is most appropriate to observe the quality of these plans in the context of its relevance, explicitly, actualization, coverage and understanding of urban and regional issues of the city and its environs.

### Review of Master Plan 1988-2013

The first Master Plan for Murree was prepared in late eighties. At that time Murree had population of 21,801 (projected by Master Plan) and it was anticipated to grow to 42,776 by the end of plan period in year 2013. It was also reported that 431,000 tourists visited Murree in 1987 out of which 68,000 opted to stay overnight or more. The tourist population was projected to be 1,437,663 annually in the year 2013.

Most of the concentration of the population was in and around main tourist resort area. The livelihood of residents of urban Murree was dependent on tourism and rural areas were dependent on agriculture. Due to lesser economic options the growth rate of Murree did not rise much and even in certain time period it reduced. The reason for this was out migration of local residents to other urban areas of Pakistan.

The Master Plan of Murree was focused on the developed urban area, but it covered all aspects of urban life including tourism. For some reason this Master Plan could not be notified and also no review of the same was conducted. Therefore, the development of Murree happened in this period without any restrictions or guidance of any Master Plan. The only document or tool that the development agencies could refer to was building byelaws and zoning regulations. This document too lost its validity and usefulness with the passage of time, as it could not provide required guidance to the developers, builders and planners, regarding many areas of development. This gap in the statutory framework resulted in the expansion of Murree in an

undesired pattern, without effective development control. Table 1 provides the land use distribution of Murree town in the year 1988. If these look at these land use percentages are compared with today's standards, it seems that Murree town was a balanced town in terms of its land use distribution.

Murree at that time was a small town and the rural areas were not considered as part of urban Murree and maybe there was not enough interaction between the two that needed planning of hinterland. The only crises situation in Murree was the influx of tourist in the summer season that left roads of Murree choked. Murree as a town itself was not a problem area. The plan was taken up for the plan period of twenty five years in the future, but it failed to anticipate the pace of growth of Murree city. The adopted approach can be justified, as the transport projects taken up at later stages and law and order situation that changed the status of other tourist destination (contributing to the tourist influx to Murree) could not have been anticipated earlier.

The 1988-2013 Master plan of Murree did not provide any guidelines to check ribbon development or even to identify it as a threat towards planned development at later stages (Table 1). Consequently, Murree's commercial areas flourished along road sides gradually. With all sorts of shops along road sides and other facilities following their footsteps, the very concept of planned neighborhoods and

**Table-1:** Land use Distribution of Murree Town in Year 1988  
Source: Master Plan of Murree Town, 1988-2013

S. No.	Land Uses	%ages Yr. 1988
1	Residential	26.88%
2	Parks and Play Grounds	19.04%
3	Institutions (Education and Health)	17.16%
4	Public Building	13.38%
5	Commercial	4.21%
6	Graveyard	3.99%
7	Industrial	0.11%
8	Circulation	15.23%
Total		100%

Note: Reserved Forest Area and Cantonment area were not included in this distribution.

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sub-neighborhoods suggested through the Master Plan was totally defeated. The Plan did not refer to disaster risk assessment studies conducted earlier and failed to identify hazardous areas in the existing or proposed studies. Moreover, it did not make any effort to do the same in areas it identified as potential growth areas.

The Master Plan of Murree 1987-2013 was focused on the urban area and did not put enough light on the reserved forest areas of Murree. Thus, it did not provide sufficient guidelines to conserve the natural habitat of Murree's wildlife and its precious forest areas, that included very old coniferous trees and some rare species of deodar trees. Similarly, Murree had some heritage sites from colonial times that interested foreign tourists. The Master Plan did not propose any policies regarding safeguarding these. The Master Plan anticipated enormous increase in tourist population, but did not provide any guidelines for efficient public transport services and road efficiency. Moreover, it also failed to indicate the relationship of the location of traffic generating land uses with transportation.

A noteworthy drawback was that the whole effort of the Master Plan was not backed by a comprehensive implementation strategy. Following are some shortfalls in the implementation strategy of the Master Plan:

- a. The policies and proposals were vague in nature, failed to provide clear cut and effective projects. Projects proposed were without phasing and had crude cost estimates;
- b. It was not clearly mentioned whether these projects were to be taken up by public sector or by private sector or by mutual partnership;
- c. The implementation tools like guidelines for byelaws and zoning regulations were not provided that may have delivered the required launching pad;
- d. The institutions responsible for execution of these projects were not identified along with the guidelines of their capacity buildings;
- e. The public participation and empowerment of concerned population strata was not given that could have provided sense of ownership among the masses and may have been the driving force behind approval and implementation of this master plan.

The master plan had various good and bad points, but the problems with the Master Plan would have been resolved, if it was subjected to review by various authorities, academia and intellectuals. At that time some of the development that

took place and contributed to unplanned growth could not have been anticipated, but the built in mechanism for review of the Master Plan after every five years could have made it possible to mitigate the later year's problems. In this regard, the importance of notification of this Master Plan cannot be denied.

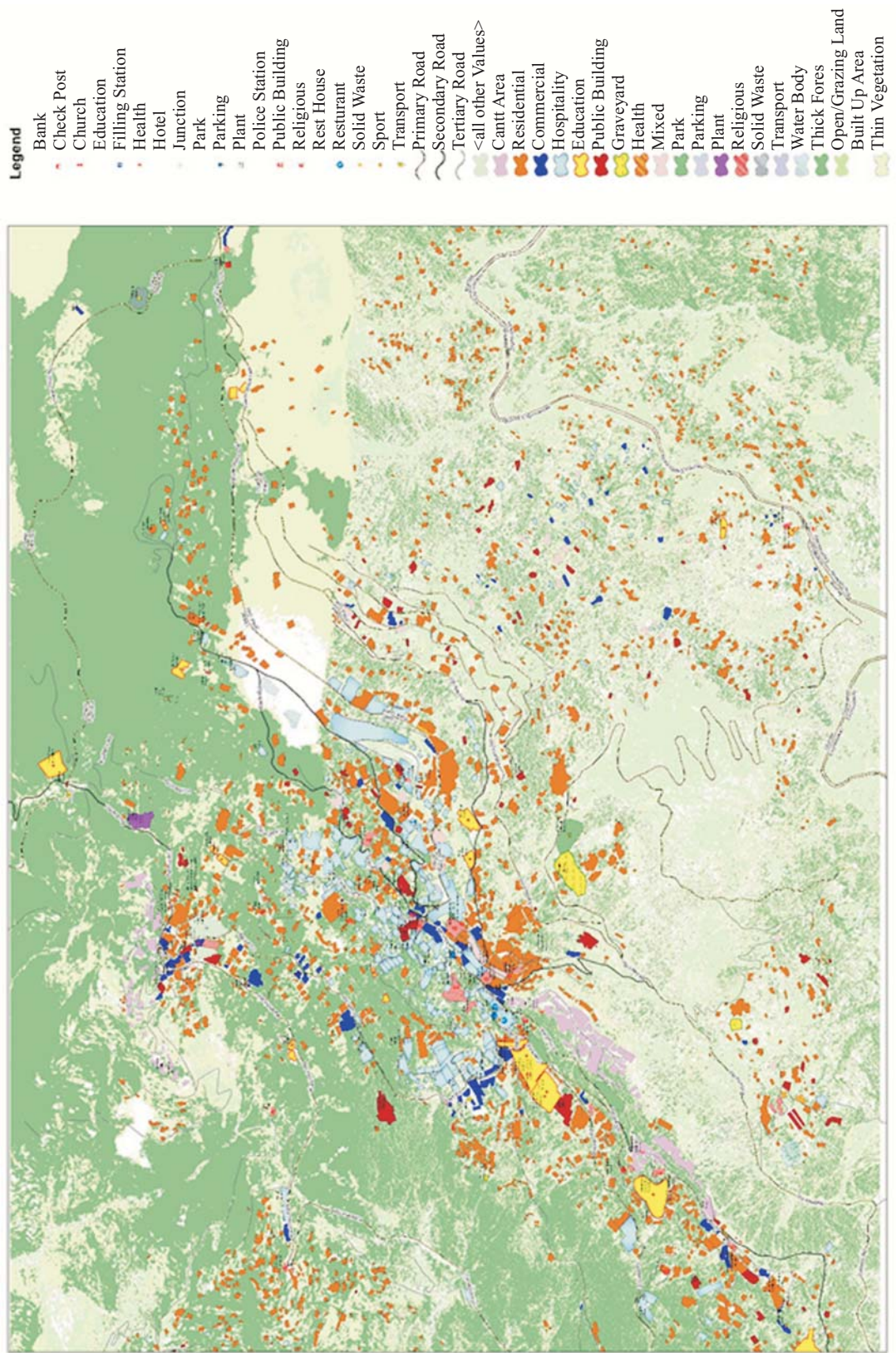
### **Review of the Master Plan for Murree 2013-2032**

The second Master Plan for Murree was prepared in year 2013, after the previous Master Plan period had expired. The previous Master Plan was not notified and the development for twenty five years went on without any formal plan. The new Master Plan prepared in year 2013 was expected to fill the gaps of the previous Master Plan and provide solutions for the very visible urban problems, created by the absence of a comprehensive plan for the city, with development potential. The Government of Punjab felt the need for a comprehensive plan for the city and entrusted Tourism Development Corporation of Punjab (TDCP) the task to cover all the aspects of urban life in their Tourism Master Plan launched at that time. With some variation in Terms of Reference (TOR) of the assignment the task was initiated by the authority.

The engaged consultants made a very good effort in the preparation of the Master Plan while covering all the characteristics of Murree urban area. Besides studying existing features of land uses, they also reviewed the old Master Plan for its existing potentials, policies and proposals. This exercise provided a base to initiate the study. Besides the Master Plan (1988 – 2013) the new document reviewed the various policies and strategies of national and provincial level related to urban planning. The document analyzed Murree City in the light of these reports and its application in case of the city. Moreover, it analyzed the prevailing intuitional setup in Murree and also commented on the capacity of implementing agencies of the Master Plan.

It also studied the past land use growth pattern of Murree and analyzed the land use growth in the historical perspective. In this regard, it was observed that there was urban sprawl in Murree, in the form of segregated pockets outside the main urban core. It was also pointed out that the topographical limitations related to the availability of land compelled people to vertical expansion, despite unstable soil conditions and disaster prone areas in the vicinity. Furthermore, it studied the daily commuting pattern of Murree city to provide basis for detailed transportation analysis. The good thing about this document was that it studied in detail the major aspects of land use with respect to sustainability. With





**Figure-1:** Land Use Classification Muree City  
Source: Master Plan to Develop Muree a Pollution Free 2031, Existing Scenario Volume-I, Tourism Development Corporation, Punjab-June 2013

comprehensive reviews and analysis of various documents related to urban development the document proposed policies related to various sectors. In this regard Sustainable land use planning policies (SLP) were dealt with separately. Similarly, relevant policies were proposed on all aspects of urban growth, in the respective sections.

In the area of disaster risk-resilient land use planning the range of safely located building were enhanced to all buildings where public gathering took place, in addition to educational and health buildings. Moreover, provisions of document recently prepared by UNDP regarding seismic micro-zonation of Murree were streamlined with the master plan provisions. In this regard, peak ground acceleration (PGA) value maps for each area were prepared and the information was made part of building byelaws and zoning regulations. This criteria was applied to existing buildings as well, by introducing retrofitting techniques.

In the second section of exploring growth opportunities/corridors more care could have been practiced to discourage the prevailing trend of ribbon development. The Master Plan proposes a density proposed to 252 persons per acre, which seems on higher side and may need to be revisited. Moreover, provisions of middle and lower level amenities could have been emphasized for neighborhood and sub-neighborhood levels, besides commercial activities and parking. The precincts provision policy, recommended in the Master Plan, could be healthy practice for urban uplift of Murree. However, this policy framework needs to be reinforced by comprehensive detailed planning and designing, with ample inclusion of all stakeholders, including prospective end users and land owners.

Murree is a city that has expanded far beyond its urban limits. The land use aspects in the master plan are focused on the urban core within crow flying of less than 2.5 km from GPO Murree. This approach may not solve problems of Murree city. Its physical expansion, considering the socio-economic relationship of main core and hinterland, should be studied carefully, to revise and acknowledge the actual boundary of the city. Furthermore with emphasis on the main core the focus remains on tourism and with limited option of land, new avenues cannot be recommended.

## ANALYSIS AND DISCUSSION

The Master plan of Murree prepared in year 2013 has not been notified. Similarly, the model building byelaws, zoning regulations and subdivision regulations issued by the Government of Punjab, need to be adapted to the city's

specific conditions. Functions like approval of housing schemes and change of land use should be given to TMA, as they have better vision of their administrative jurisdiction. Owing to the trend of commercialization in the central city, most of the resident population has moved to the outskirts, outside the municipal boundary. There is a need to revise the municipal boundary, considering the physically coherent development and future growth. There is also a need to take up conservation of the forest and preservation of heritage site in a planned manner. Moreover, the development in disaster prone areas need to be checked with applying international protocols for resettlement, if required. To ensure implementation of plans and guide development in a proper manner there is a need for extensive institutional strengthening among development agencies related to Murree.

At the analysis stage, to evaluate the sustainability of existing land use it was crucial to look at Murree from the resident's perspective, to facilitate the analysis process two main aspects were given main consideration to evaluate efficient provision of amenities during local respondent's survey. The first one was the location criteria and the other was called allocation criteria of various amenities and facilities.

Table 2 depicts that average distance of metaled road from most of the household is 0.59 km, whereas average distance of sub-neighborhood parks was reported to be about 4.99 km and the demand for location of shopping areas was preferred to be at 2.01 km. These statistics show that most of the areas from which respondents belonged were not adequately served with respect to these facilities. The end users of these facilities could not reach these facilities conveniently in the hilly terrain of Murree, even in fair weather conditions.

**Table-2:** Distance of daily use amenities from respondent's household.  
Source: Field survey

S. No.	Various Amenities	Average Distance for HH (in km)
1	Metaled Road	0.6
2	Sub-Neighborhood Park	4.9
3	Consumer and Demand Goods Shopping Area	2.0
4	Hospital	6.7
5	Play Ground	3.2.
6	Public Graveyard	4.5

The reason for this imbalance of facilities is the development taking place randomly in small parcels of private land or along the roads in the form of ribbon development, without any development control or a pre conceived plan. Parks in Murree have been developed considering tourism aspect rather than the needs of the local residents.

Another important aspect of the survey was the results of priorities of local residents regarding provision of various amenities. Table 3 and Figure 2 show the priorities of survey respondents. It can be observed that education is second priority of most of the residents, with first being health facilities. The obvious reason is that the city lacks health facilities especially in the public sector. People have to rush towards Islamabad in case of major health problems. The other priorities were clean drinking water, shops offering daily use goods and access road to their residences. The demand for convenience shops owes to the fact that the concept of independent neighborhoods does not prevail in Murree and grocery shops are usually found on road sides or in central part of Murree. Surprisingly, the demand for public transport and recreation facilities was one of the least priority areas for local residents.

The visitors to Murree perceive the city from a different point of view as compared to the local residents. Their needs and expectations from the city's land use are also different. Therefore, it was essential to record the perception of the tourists and the expectations from the city's land use.

Murree is considered as a family tourist resort and is most popular tourist destination for local tourists from all over Pakistan. The day trippers are mostly from nearby areas like Rawalpindi, Islamabad or Kashmir. People who choose to

stay overnight or more are mostly from distant areas. The tourist in Murree, irrespective of their duration of stay, looks at Murree's land use from the perspective of parking availability, easy access to shopping and recreation areas, availability of places for recreation, greenery, road furniture, sitting spaces, sufficiency of roads, availability of hotels and restaurants, natural landscape and many other venues to the satisfaction of their stake.

Table 4 and Figure 3 depicts that the non-availability of tourist information center and parking are the main problems in Murree from tourist's point of view. The second and third priorities for the tourists are the provision of trauma centers and filling stations.

People seem satisfied with provision of hotels and recreational facilities. As the tourists mostly visit Murree on a personal or hired car, they ranked public transport at a lower priority. Other amenities and shops offering general use items were least important for the tourists.

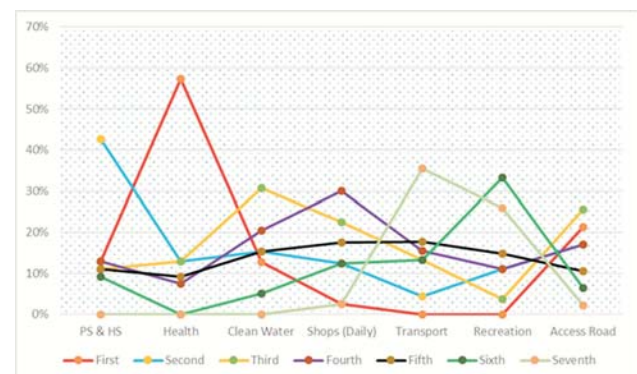


Figure-2: Ranking of resident's priorities for provision of amenities.

Table-3: Resident's priorities for provision of amenities.

Priorities	PS & HS	Health	Clean Water	Shops (Daily Use)	Public Transport	Recreation	Access Road
First	13.0	57.4	12.8	2.5	0.0	0.0	12.3
Second	42.6	13.0	15.4	12.5	4.4	11.1	17.0
Third	11.1	13.0	30.8	22.5	13.3	3.7	25.5
Fourth	13.0	7.4	20.5	30.0	15.6	11.1	17.0
Fifth	11.1	9.2	15.5	17.5	17.8	14.8	10.6
Sixth	9.2	0.0	50.0	12.5	13.3	33.4	6.5
Seventh	0.0	0.0	0.0	2.5	35.6	25.6	2.1
Total	100%	100%	100%	100%	100%	100%	100%



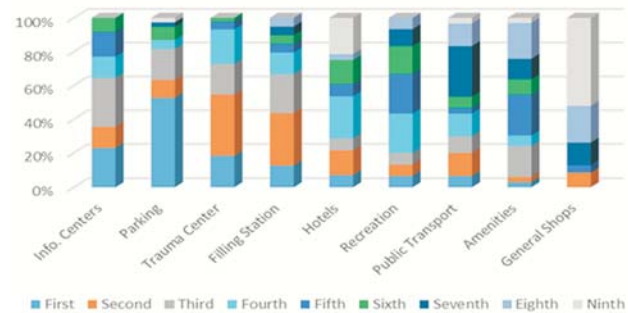
**Table-4:** Ranking of tourist's priorities for provision of amenities.

Priority List	Tourist Info. Centers	Parking	Trauma Center	Filling Station	Hotel	Recreation	Public Transport	Amenities	General Shops
First	22.9	52.6	18.2	12.8	7.1	6.7	6.7	3.0	0.0
Second	12.5	10.5	36.4	30.6	14.3	6.6	13.3	3.0	8.7
Third	29.2	18.4	18.2	23.2	7.1	6.7	10.0	18.2	0.0
Fourth	12.5	5.4	20.4	12.7	25.1	23.3	13.3	6.1	0.0
Fifth	14.6	0.0	4.5	5.2	7.1	23.3	3.3	24.2	4.4
Sixth	8.3	7.9	2.3	5.1	14.3	16.8	6.7	9.1	0.0
Seventh	0.0	2.6	0.0	5.3	0.0	10.0	30.0	12.1	13.0
Eighth	0.0	0.0	0.0	5.1	3.6	6.6	13.4	21.2	21.7
Ninth	0.0	2.6	0.0	0.0	21.4	0.0	3.3	3.1	52.2
Total (%)	100	100	100	100	100	100	100	100	100

## CONCLUSION AND RECOMMENDATIONS

For over three decades, the growth of Murree has taken place without any specific pattern or a pre-conceived planning approach. In all the projects and service plans, Murree has emerged merely as a tourist hub with weak depiction of planning as a city or tehsil headquarter. This trait has badly affected the overall land use pattern of Murree in multiple dimensions, creating huge piles of incompatibilities and culminating diverse complexities in the city's operational efficacies. Predominantly, these practices have originated as a result of clumsy approach, taking tourism as a major source in the employment sector. Unfortunately, no heed has been paid to find new avenues for economic growth for Murree city. Today, Murree lacks basic amenities both in qualitative as well as quantitative terms. In this regard, what it lacks most is the balance of distribution in neighborhood and sub-neighborhood level facilities. Moreover, due to centralization of amenities, parking is becoming a major problem for the tourist influx and for the local residents as well. Emphatically, the creeping vitality of Murree seeks the building byelaws and zoning regulations to be tailored as per local conditions in the overall planning process.

With regards to environmental concerns, studies pertaining to disaster assessment were conducted especially in the areas of landslides and seismology, but the same were never streamlined with the ongoing development activities. Similarly, conservation of habitat of wild life/forest areas



**Figure-3:** Ranking of tourist's priorities for provision of amenities.

and heritage preservation being practiced also lack element of true spirit. Special training programmes are required to be inducted into the disaster risk management area to safeguard precious lives and properties.

The approval and notification of the Master Plan need to be expedited. In this regard, extensive institutional strengthening is required to enable the development agencies to understand the working mechanisms and to ensure proper implementation of master plans. The standardized format for classification and reclassification of land uses issued by the Government of Punjab needs to be reviewed and upgraded to the level of sustainable land use planning, by incorporating the aspects related to environmental sustainability, socio-economic uplift and disaster resilience. To strengthen development agencies, finance mechanisms also need to be revisited and new avenues for revenue generation need to be explored, with

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the TMA being the main beneficiary and service provider at grass-root level.

Murree deserves to be acknowledged primarily as an administrative head for a sizeable resident population. The city faces multifarious problems which are interrelated and interdependent in nature owing to the diversity of city's characteristic. In this regard, hierarchy of land uses should

be established to achieve a balanced distribution of amenities for all areas of Murree city and its environs, with the national and international standards of the cities attracting tourists across the world. Moreover, conservation of habitat/forest areas and preservation of heritage buildings need to be accorded top priority, and in this regard a comprehensive plan needs to be prepared for implementation in phases, so that the routine activities are not seized to a standstill position.

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# COMMUNITY BASED URBAN AREA CONSERVATION LESSONS FROM PAKISTAN

*Shabnam Nigar Mumtaz\**

## ABSTRACT

Pakistan has a treasure of historic cores as part of various cities that date back to Pre-Mughal, Mughal and Post Mughal periods. Even those cities that were developed during the 19th century British rule have areas that are valuable as representative of a shared heritage with colonies of Britain. Since many historic cores have become part of the cities, these historic cores are seriously threatened.

Unesco World Heritage List includes many major historical monuments and sites of Pakistan but it is yet to list any historical town in Pakistan. The local legislation also does not list any historical town. In spite of their value, most historical areas are deteriorated and many parts of this significant heritage have been lost over the years.

Community based conservation promotes the idea that the key to success of long term conservation lies in community engagement, bringing the benefits of historical conservation to the local community. However, although community based conservation is practiced commonly world wide, it is not always successful.

This paper tries to answer the following questions:

1. Is community based conservation an effective tool in Pakistan for conservation of urban areas?
2. What are the factors that contribute to the success or failure of such conservation exercises?
3. What part does a project design and local community character play in the success or failure of an urban conservation project?

A multi sited case study method has been used for this paper to research and analyse conservation projects having similarities and differences related to heritage conservation. Each site has been analysed for its unique local context and each project has been reviewed for the different project

designs which speak about the multi layered challenges of heritage conservation.

The three cases presented here offer valuable lessons for the design and implementation of area conservation programs in Pakistan. One lesson is the need to put all values embedded in urban heritage into play, as they are the drivers that mobilize a diverse set of stakeholders. These values include cultural and social justice, historic, artistic, educational and economic factors that can mobilize community, government, elite, philanthropist and entrepreneurs. The premise of analysis here is that more the variety of values, the more sustainable the conservation.

The methodology used is literature review from secondary sources i.e. books, articles, academic papers and discussions with colleagues. The conclusion points towards the fact that in Pakistan community based conservation may not be the only solution to area conservation because only few groups can value it, like academia, groups from civil society and some government departments. Communities at large need more motivation and awareness to become the major participant of urban area conservation exercises. The role of elite and private sector is also very insignificant. Any external agency can help only in advisory and financial capacity, but means to generate funds locally should be there.

**Keywords:** Urban area conservation, community, Pakistan, heritage, historic cores

## INTRODUCTION

The status of urban area conservation is described by an academic conservationist Prof. Dr. Anila Naeem from the Department of Architecture and Planning, NED University of Engineering and Technology in 2009 as follows:

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\* Shabnam Nigar Mumtaz, Assistant Professor, Department of Architecture and Planning, NED University of Engineering and Technology, Karachi.  
Email correspondence: shabnamnigar@yahoo.com

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*“In Pakistan urban area conservation is not an established professional field and designation of historic centers is altogether a very new idea. Thus, conserving urban heritage areas may take many shapes and meanings and conservation of urban areas is more complex than conservation of individual buildings or archaeological remains”.*

The urban in Pakistan is defined as places with municipal corporation, town committee or cantonment (Demographic Yearbook, 2005). Pakistan has experienced large population increase in urban areas over the past six decades. The population growth rate is averaged around 2.5% per year for rural areas and around 3.5% per year for urban areas. It is speculated that by the year 2030, the urban population will become 50% of the total population. With such rate of growth in the cities of Pakistan sustainable development can only be brought by creating the balance between the new development and redevelopment of existing areas. Heritage conservation is an essential part of this sustainable redevelopment.

Pakistan has a wealth of historic cores as part of various cities that date back to Mughal and post Mughal periods. Even those cities that were developed during the 19<sup>th</sup> century have areas that are of extreme value as representative of a shared heritage with Britain. Since many historic cores have become part of the city center or old town, the historic areas in these cores are gravely threatened. These areas require area conservation techniques to resolve their issues. There are three classifications of tangible heritage i.e. world heritage, namely national heritage, local heritage and urban historic cores. Urban area conservation can be part of any heritage classification.

## **AIMS AND OBJECTIVES**

This paper aims to review current practices of community based area conservation in Pakistan for the possibility of expanding / building upon new conservation approaches. The idea here is to base the future strategies on experience by analyzing the issues at hand that all stake holders are facing and thinking of strategies that could benefit locals.

The specific objectives of this paper are as follows:

- To examine the overall effectiveness of community based conservation in Pakistan.
- The factors that might affect the success or failure of community based conservation.
- The part that the national context, project design and local

community character plays in the success and failure of urban conservation project.

## **METHODOLOGY**

This paper is divided into two parts. The first part is a summary of the literature reviewed about area conservation in an urban context and the second part is based on case studies.

The literature consulted is mostly from secondary source articles from journals, books, internet sources and newspaper clippings. A case study method has been chosen to get an idea of the problems involved in urban area conservation in Pakistan and its solutions. The case studies chosen from Pakistan are the City of Uch, the Walled City of Lahore and the Saidpure village conservation project. These cases have been taken because they involve area conservation strategies in an urban background.

## **URBAN AREA CONSERVATION**

In 1964 the ICOMOS Venice Charter although emphasizing the cultural significance of individual monuments, extended the concept of the historic monument from not only a single architectural work to an urban setting in which is found the evidence of a particular civilization (International Council of Monuments and Sites, 1964). In the European context, the Amsterdam Declaration built on this idea by stressing the need to develop integrated conservation policies. It emphasized that protection policies should be devised to safeguard the traditional environment of historic towns and old quarters of cities, as well as towns and villages with traditional character, and to ensure the interaction of functions and the continuation of social and cultural diversity that characterizes such places.

The key issue identified in this respect was that integrated conservation of architectural heritage should be regarded as a fundamental component of local and regional planning, that budgetary policies allocating funds for new development and construction should be redirected more evenly between rehabilitation and for development of new building.

### **Urban Area Conservation in the contemporary World**

Most new development and redevelopment projects in cities impact upon space the existing fabric and the socio-economic character of a place. Due to the change in the socio economics of cities, redevelopment of urban areas has increased over the years and has endangered the existing urban heritage. The planning for urban growth is done with the objective

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of raising the standard of living of the urban resident, in terms of changed social, cultural and environmental fabric. With the evolution of the concept of sustainability, planners are trying to create a balance between new and old development and protect urban heritage. The change in the socio economic conditions has also changed the aspirations and values regarding the common built future. The neo liberal paradigm has left the development of the cities in the hands of market economy without safeguarding against its externalities.

### **Urban Area Conservation Policies in Pakistan**

In the year 2016 when trying to review the area based conservation approach in Pakistan, there were very few local examples to learn from.

There are many historic areas within the cities in Pakistan. Most of them are at the centre or the old town areas. Conserving urban heritage areas may take many shapes and many meanings. Conservation of living areas is more complex than conservation of individual buildings or archaeological remains.

In the Pakistani context scholars as well as concerned citizens involved in urban planning and conservation, desire to protect their urban historical places, like their historic towns or historic cores of large cities. Pakistan has a number of cities like Karachi, Hyderabad, Lahore, Multan and many others with historic areas that need to be preserved. The national policies in Pakistan acknowledge many archaeological sites and monuments, giving them certain levels of protection, but historic towns and urban historic cores are largely ignored, thus subject to adverse transformations due to development pressures, mismanagement and exclusion from planning policies (Laiq and Soomro, 2011).

The few urban conservation cases that are seen in this direction are community based approaches. These are the conservation exercise in the city of Uch or Urban design exercise of Saidpur Village in Islamabad and Walled City renovation of Lahore.

In the present age of globalization, heritage area conservation is seen as the tool for culture led regeneration of cities for creating an image and identity of the city and to improve its economy. Globalization today values the diversity of cultures and cities, and promotes retention of historical urban cores. The policy of area conservation however, is not without critique. Prof Goodey, Emeritus Professor Brian Goodey, of Oxford Brooks Univeristy, talking on this issue

in Karachi said that when the question of designating places is raised there is a kind of tension in this regard. Professionally when one starts to gather information about an urban area, one usually demarcates areas or regions with certain qualities to make them stand out from the rest, and many things happening in today's world militate against that psychoogically. Boundaries shift very rapidly and spatial understandings are shifting too so the question arises if one should really strive to get definitive lines around things, objects or spaces? Demarcating an urban area is one of the key features of conservation research and one has to question if putting a line around a space or region is an effective means of defining an inevitably evolving or transforming urban space, or defining the area through a rolling or spot program is a better option.

There were some commonalities in the projects that are selected from Pakistan which are outlined here:

1. The projects were funded by either external sources or by a combination of both external source and public agency.
2. The socio-economic and governance profile is low.
3. The awareness level on heritage conservation is also low.

### **CASE STUDIES**

#### **Case Study 1: The City of Uch**

Built on the experience of Karimabad Area conservation Project within the rural setting, the Aga Khan Cultural Support Program desired to undertake a similar area based conservation exercise for another urban area. Historic Cities within the Agha Khan Cultural Support Program promote the conservation and reuse of buildings and public spaces in historic cities in the Muslim world. The villages and neighbourhoods around Baltit Fort, which were in danger of being deserted in favour of new construction, have been rehabilitated with the active participation of residents. The Aga Khan Trust for Culture, through its local company Aga Khan Cultural Service - Pakistan (AKCS-P), engaged in reviving pride and identity through interventions in cultural heritage that supported social, physical and institutional development. In the fifteen years of operation from 1992 to 2007, several key principles guided the revitalization efforts. The first principle was that restoration must lead to the infusion of new life into historic landmark buildings, which made them meaningful for the local communities and the users. The project intended to unite issues of public health,



sanitation and environmental for upkeep of the city, which was the core issue of sustainable area conservation. The objective was to provide technical help to the municipal institutions and to help them build institutional capacity, planning frameworks and rationalize investments made by public sector on infrastructure and roads, while enhancing organizational and technical capacities (Khan, 1999).

The City of Uch, which is a small historic town in rural lower Punjab located at the meeting point of River Indus and River Sutlej was a once a large port city. Uch (present population 20,000) was a major regional capital in the past. In spite of its demotion to economic and political insignificance, Uch shares a great deal of cultural heritage with large historic cities like Multan and Lahore. Today's Uch represents social and economic inertia caused by long social neglect and low developmental priorities for such towns. Present day Uch comprises of two distinct historic centers-Uch Bukhari and Uch Gilani. Distributed over these two halves of the city are the total sixteen listed monuments. These monuments are protected under the Antiquities Act of 1976 and are under the care of the Department of Archaeology and Museums (Khan, 1999) (Figure 1).

According to Hasan (2010) the situation of Uch is related to migration of better educated citizens, the shift in control over land and local government by the influential families and the proximity of economically better off towns on the main communications network close to Uch. Hasan (2010) is of the opinion that there is not much future for Uch and if Uch's monuments and status as an ancient town is to be rehabilitated it can be done by proper organization of religious festivals as they can become major touristic attractions.

The basic hiccup in the conservation of the Uch Monuments is the approach of the government towards conservation and urban planning "No matter how hard we try at putting

together a case for integrated conservation, the tendency on the part of government functionaries to pigeon-hole culture, heritage, conservation, development and urban development separately from one another which has been difficult to dislodge. It was only the backing of AKTC's Historic Cities Support Programme and of the World Monument Fund and the sheer visual and artistic impact of the exquisite 14th and 15th century glazed tile facing of the monuments in Uch that we were able to finally convince the Government of Pakistan to let us work in the city" (Khan, 1999:10).

General lack of awareness about heritage and its related management also results in poor urban conservation. The main issue was of waste water and solid waste disposal and institutional inadequacies. Thereby the first component of this program was sanitation. Community mobilization was relatively easy for sanitation program, the question of historic value, fabric and environmental rehabilitation was not incorporated in the beginning of the sanitation initiative as it was seen as a channel for future action. Community mobilization program had its inspiration from Orangi Pilot Project (OPP) in Karachi. Later on the heritage conservation of Uch was taken up by a Lahore based NGO, called Conservation and Rehabilitation Center which managed to get some funds for cultural heritage of Uch and conservation work has been carried out in this regard.

Professionals feel that the role of external agency is essential in an urban area conservation project but it has to be understood that the success of OPP in Karachi is based on its permanency and trust factor. Same is the case for Aga Khan Trust for Culture in Karimabad. Similar results cannot be achieved by a short intervention of any external agency. Their capacity for increasing the ability of municipality on technical issues may help in that direction, evident in both the case studies of Walled City of Lahore and in Uch.

In countries, like USA, the local government acts as a bridge between private-sector capital and expertise and public-sector development programs. In developing countries like Pakistan, NGO's or external agencies take over that role, and in case the external agency pulls back, the relations of community and municipality do not survive.

In trying to answer the question about how effective was this approach to urban area conservation and what factors were responsible for the success and failure of the project, it was felt that it was not very successful because it was done as an experiment and the long term commitment was not there, as was seen in the case of OPP. Most of the work



*Figure-1:* Tomb of Bibi Javindi.

that had been carried out was on the government owned heritage site. The overall context of economic decline of the city was also a reason for the failure of the project, because investment could not be attracted.

Because of the neglect faced by the residents on the hands of the government they were ready for voluntary and financial contributions to improve their environment related to sanitation and waste disposal, but they did not care much about conservation issues. The priority of people was access to basic needs. As many of the listed buildings were inhabited there was a need to review the whole process of listing the buildings along with the terms and conditions and possibilities of incentive based approach.

The project design for urban area conservation needed to address the following questions clearly in order to be successful.

1. For whom is the conservation being done for the who is supervising the project?
2. What are the hinderances in accessing the local context?
3. What business model has been developed for promoting the economy for people and for investors?

### Case Study 2: The Walled City of Lahore

Lahore is a historical city, dating back to about a thousand years. It has several monuments and sites including globally recognized built form such as the Lahore Fort and the Badshahi Mosque complex. Within the walled city of Lahore one still finds hundreds of heritage buildings, noticeable for their deterioration and lack of maintenance and care. The historic landscape of Lahore, has many aspects associated with intangible heritage, for which Lahore is famous. The project of conservation of Walled City of Lahore started with a cosmetic intervention with the intention of conserving one main bazar of the Walled City, which is supposed to be the historic royal route which the Mughal monarchs used to take from Delhi Gate to their palace in the Lahore Fort. A part of World Bank loan, called the Punjab Municipal Infrastructure Improvement Loan, was utilized for this task. A project management unit was established for this purpose by the Punjab Government and an agreement was signed with the Aga Khan Trust for Culture (AKTC). AKTC in the planning preparation and the execution of the project. A strategic and integrated infrastructure development plan was formulated, which identified a local development framework. Efforts were also made towards developing new legislative initiatives. Under this new legislative framework

a master plan for conservation and development had to be prepared (Khan, 2011) (Figure 2).

The pilot project area included the main bazaar, two major monuments, the Wazir Khan and *Sonehri Masjid* and the adjoining residential neighborhood. The following were outlined for the project:

1. A question about the stake holders
2. The role of agencies involved with the rehabilitation and transformation processes.
3. The role of the historical heritage itself in the contemporary urban atmosphere.
4. The question of human development in the light of cultural intellectual and economic development, with the issues of communal identity, self esteem and a sense of attachment to a place.

According to a press report “a project to save the architectural and cultural heritage of Lahore’s fabled old city is foundering due to political instability and corruption. Officials say that the World Bank had offered US\$10 million (Dh36.7m) to restore the 2.6-sq-km Old City, home to 145,000 of Lahore’s eight million population, but the so-called Walled City project has become mired in bureaucracy and inertia. Jewels of Mughul architecture have been neglected or poorly restored. Havelis, courtyard houses, have been left to rot. Manthe city’s decorously carved wooden balconies, or *jharokhas* (wooden balconies), have collapsed and the streets are squalid.” (Rumi, 2008). The report may be exaggerating the situation an ground but one may imagine the problems highlighted in this report, the problem of corruption, substandard work the lack of ownership by the community and the municipality, which may be because of external



Figure-2: A view of the walled city of Lahore.  
Source: Rumi, 2008



funding and irrational decisions for allocation of funds. So the question about the importance of community ownership and the role of external agency arises.

### Case study 3: The Saidpur Model Village

Saidpur is a five hundred years old Pakistani village built on the slopes of the Margala Hills which overlooks Islamabad (figure 3). Saidpur is named after Said Khan, one of the sons of Sultan Sarang, the Gaklhan chief of the Potohar Region. The village was converted into a place of Hindu worship by Mughal commander, Raja Man Singh. The region is home to many Hindu temples that are preserved and show the history of Hindu civilization and architecture in the region (Khan, 2011a).

The Capital Development Authority (CDA) Islamabad converted Saidpur village (housing historic buildings and known for its unglazed pottery craftsmanship) into a model village for tourists in 2005. The main aim of the project was to conserve the culture of the village and turn it into a tourist spot. The salient features of Saidpur village today are the redesigned restaurants and the three buildings standing closely together, a *mundir* (a Hindu temple), a church and a *gurdwara* (a Sikh temple). The CDA, also setup a picture gallery inside the church, with pictures of the village's history.

A sustainable development framework for the development of Saidpur Model Village was not developed or followed for the project. The negative outcomes of the project were eviction of local persons, lack of local people's control over environment, destruction of original architectural integrity of the historic buildings and unauthentic imagery and decoration, resulting in subsequent cultural erosion of the traditional values in the area. The benefits of the project however were, the increase in the number of tourist visiting



Figure-3: Image of Saidpur village.  
Source: Khan, 2011a

the area, infrastructure developments, adaptive reuse of the *dharamshala* and the development of a museum for the city of Islamabad. In the process of the development of the Saidpur Model Village, the village was cleaned up and limited opportunities of employment were created for local craftsmen resulting in income generation for local shops (Khan, 2011a: 160-161).

The approach of the development of the Saidpur Model Village was different from the above two approaches and more in line with the market economy. The critiques on physical conservation methodology can be easily resolved by involving experts. Other critiques on the impacts of social and cultural values however need to be addressed.

### ANALYSIS AND DISCUSSION

In Pakistan most people interested in conservation of urban fabric from are academia and they lack resources to work on large scale urban projects. Local people are economically deprived and do not care about urban conservation. Elite are also not interested either. They have other priorities, so conservation becomes kind of a welfare activity, but in the age of market economy welfare is not a priority either for the government or for the people unless conservation helps the economy.

Looking at the above three examples of area conservation in Pakistan one can try to understand the problems related to heritage conservation and try to get some direction towards future policy and action. The first lesson that can be drawn is that area conservation especially urban area conservation is not an issue of restricted area only, it is linked to the structure of the whole city and it has to be seen as such. Rationalization of access, infrastructure and land use are important aspects of the conservation of a physical urban context, involving heritage and scenic environment. A good project design should address social and economic issues and outcomes address the community component and aspects of ownership of the project.

The second lesson that can be drawn about urban conservation is about the role of various agencies in the process, i.e. the municipal agency, the external agency and their interaction with the community. In western countries, like USA, municipal agency brings the community and private sector on one ground, but in Pakistan the external agency, like Aga Khan Trust for Culture or OPP brings the municipality and the community on one ground. The disadvantage of this approach is that if the external agency is of permanent nature, like OPP, a trust factor is established

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and things can work out better, but if the induction of external agency is for a short period of time things go in stagnation after the agency exits. Aga Khan Trust for Culture worked for fifteen years in Karimabad to achieve some of the conservation tasks and? OPP has been working since 1980 for community mobilization. Thus, establishment of institutional set up is required on a permanent basis.

The cost and resources required in doing such research, negotiating with partners, arranging finance to put policies in action under the economic conditions and area conservation, becomes a mammoth task. Thus, local mechanisms for funding needs to be established.

The lack of awareness to understand the importance of heritage in communities living in a built environment which is dominated by heritage is evident from the above studies. This awareness has to be inculcated in communities, and civil society has to play a role in creating this awareness.

Many countries internationally have linked heritage with the development of tourism, and thus made urban area conservation economically feasible. In Pakistan the prevailing law and order situation hinders the development of tourism. Furthermore, Pakistani cities lack basic urban infrastructure, thus do not attract foreign investment. As development of tourism needs a mindset of tolerance and respect for other cultures, thus it is important to educate the masses, because unless a tolerant environment is created physical artifacts don't matter.

The gaps in governmental approach towards sustainable heritage area development are also evident in the case of Saidpur village in the form of in its gentrification and lack of follow up after the completion of project. However, the government is becoming more and more sensitive towards heritage issues, and trying to mobilize more funds and resources towards heritage conservation, as is evident in the governments interest in preserving the Makli Necropolis and other archeological sites in Pakistan

## CONCLUSION

From the case studies it can be concluded that the component of culture and heritage are very important in the development

of cities, but they cannot be separated from overall planning of economy, education, health and social amenities for the community and the country at large.

Some conclusions that can be drawn for are:

- Pakistan lacks permanent institutional setups and the partnership with government agencies therefore not many conservation exercises are seen in the country.
- Although the government has taken some steps to address conservation community based conservation is not on the government's agenda and there is no legislation or institutional work in that direction.
- Generally there is no interest of the community in conservation of heritage, as is evident in the case studies.
- Pakistan lacks development of local funding mechanism to create ownership and stakes of communities.
- Funding possibilities are limited for conservation of heritage, although an Endowment Fund has been formed by the government, but that is not sufficient.
- The elite need to be made aware of conservation of heritage and they need to be brought into the main stream of conservation by viewing it as a welfare activity.
- Conservation activities need to be linked to infrastructure, economy and social sector. It can be seen that the above described cases have focused on some of these agendas, but with limited success. The living heritage can flourish if its conservation is done on an incentive base rather than on listed heritage base.
- Academicians have promoted many of these values but they have to reach out to the public in general, and the cite in particular to generate results.
- Business models need to involve local businessmen in the conservation projects.
- Terms and conditions for list of living heritage buildings should be modified according to the needs of the local people.

Area Heritage in Pakistan is in a stage of development and more types of approaches need to be tried and tested to reach some conclusions towards the most appropriate approach to area conservation within its context.

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# STUDY ON IMPEDIMENTS AND SUCCESS OF BUILDING BYELAWS IMPLEMENTATION IN LAHORE, PAKISTAN

*Dr. Muhammad Asim\**  
*Dr. Saima Gulzar\*\**  
*Muhammad Mashood Ali\*\*\**  
*Rumana Khan Shirwani\*\*\*\**

## ABSTRACT

Building regulations are a silent protector to the general public. These are mostly not well recognized unless a situation arises where regulations are felt inadequate or not enforced. In Lahore a number of authorities are present for the same purpose. This research aims at studying the building regulations of the city's four different authorities i.e. Lahore Development Authority (LDA), Town Municipal Administration (TMA), Lahore Cantonment Board (LCB) and Model Town Cooperative Society (MCS), and assesses the underlying causes for their implementation failures and successes. Along with reviewing the international practices, the study identifies respondents from the general public and building officials and thus tabulates the obtained results for analyzing the efficiency of a building authority. Socio-economic surveys as well as interview surveys have been conducted, in the light of which the working of all four authorities in relevance to different attributes have been assessed. The results reveal that the MCS has the most efficient building regulations mechanism and portrays an overall satisfactory condition. Recommendations have been made to identify tools for better implementation of building byelaws as well as provide an insight to the user for legalized building construction.

**Keywords:** Building Byelaws, Implementation, Building Control Authorities, Lahore

## INTRODUCTION

Building control is a core element of city planning which shapes the overall development. These are a set of rules through which one can discern the bottom standard requirements for construction of buildings. It is also referred as building code in many countries. Such laws refer to the certain standards and specifications designed for health and comfort of the building users and to provide safety to the public. The basic purpose of building byelaws is to allow disciplined and systematic growth of buildings and towns and to ensure proper utilization of space.

Lahore is a unique city as it has multiple authorities exercising building control as compared to other cities of Pakistan. There are Cantonment Boards (purely military controlled area), LDA which is a civilian institution and local government unit called TMA. Besides there are cooperative authorities, for instance the MCS, which exercises building control. All responsible authorities have different mechanisms of implementing the building byelaws.

Different authorities have their own byelaws according to their areas of jurisdiction, for instance LDA has its own building regulations for newly developed schemes. Similarly TMA have their control on build up areas of Lahore, so they have their own regulations which best suit them. Furthermore, Cantonment Board is a military organization which has its own building byelaws and rules for the concerned areas.

The main focus of the study is to analyse the role of the four cited authorities and what are the factors and underlying

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\* Dr. Muhammad Asim, Assistant Professor, City and regional Planning Department, University of Engineering and Technology, Lahore.  
Email correspondance: asim\_planner@yahoo.com

\*\* Dr. Saima Gulzar, Associate Professor, School of Architecture and Planning, University of Management of Technology, Lahore.  
Email correspondance: saima.gulzar@umt.edu.pk

\*\*\*Muhammad Mashood Arif, M. Sc Research Scholar, Hasslet University, Belgium.

\*\*\*\*Rumana Khan Shirwani, Assistant Professor, School of Architecture and Planning, University of Management of Technology, Lahore.  
Email correspondance: rumana.shirwani@umt.edu.pk



causes due to which building byelaws are successfully being implemented and any impediments that these authorities face.

Figure 1 shows the location of these four authorities in the city.

## RESEARCH METHODOLOGY

Building byelaws mainly include standards for setbacks, building heights, mandatory spaces and in more advance level building direction, parking spaces, emergency and fire exits, building texture and façade elevations. LDA is mostly regulating the new development in Lahore and TMA has control over build-up settlements, while areas under Cantonment are monitored by Cantonment Boards. On the other hand Cooperative Societys have their building byelaws which are implemented on areas like Modal Town. For assessing the building byelaws, as described by these authorities, few areas have been selected which fall under their respective jurisdictions.

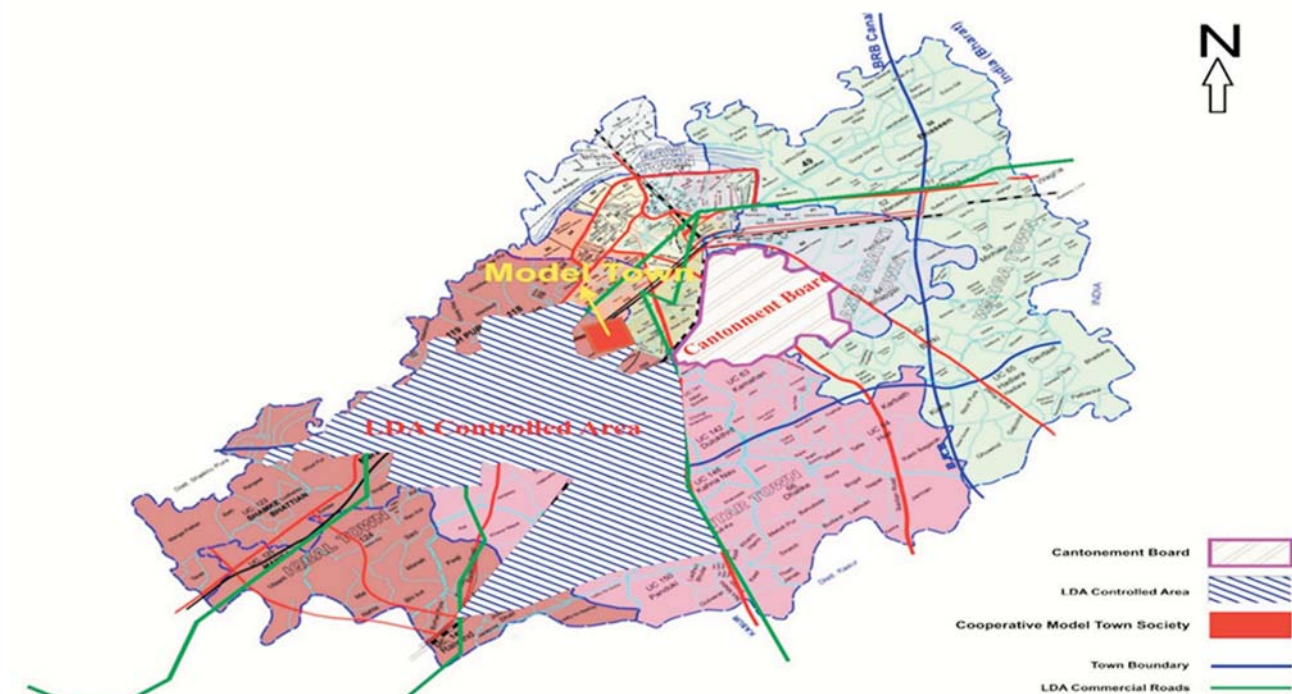
The following areas are taken under the above mentioned regulating authorities (see Table 1)

Furthermore, Figure 2 gives an overview of the areas chosen and the location of the areas where surveys have been carried out.

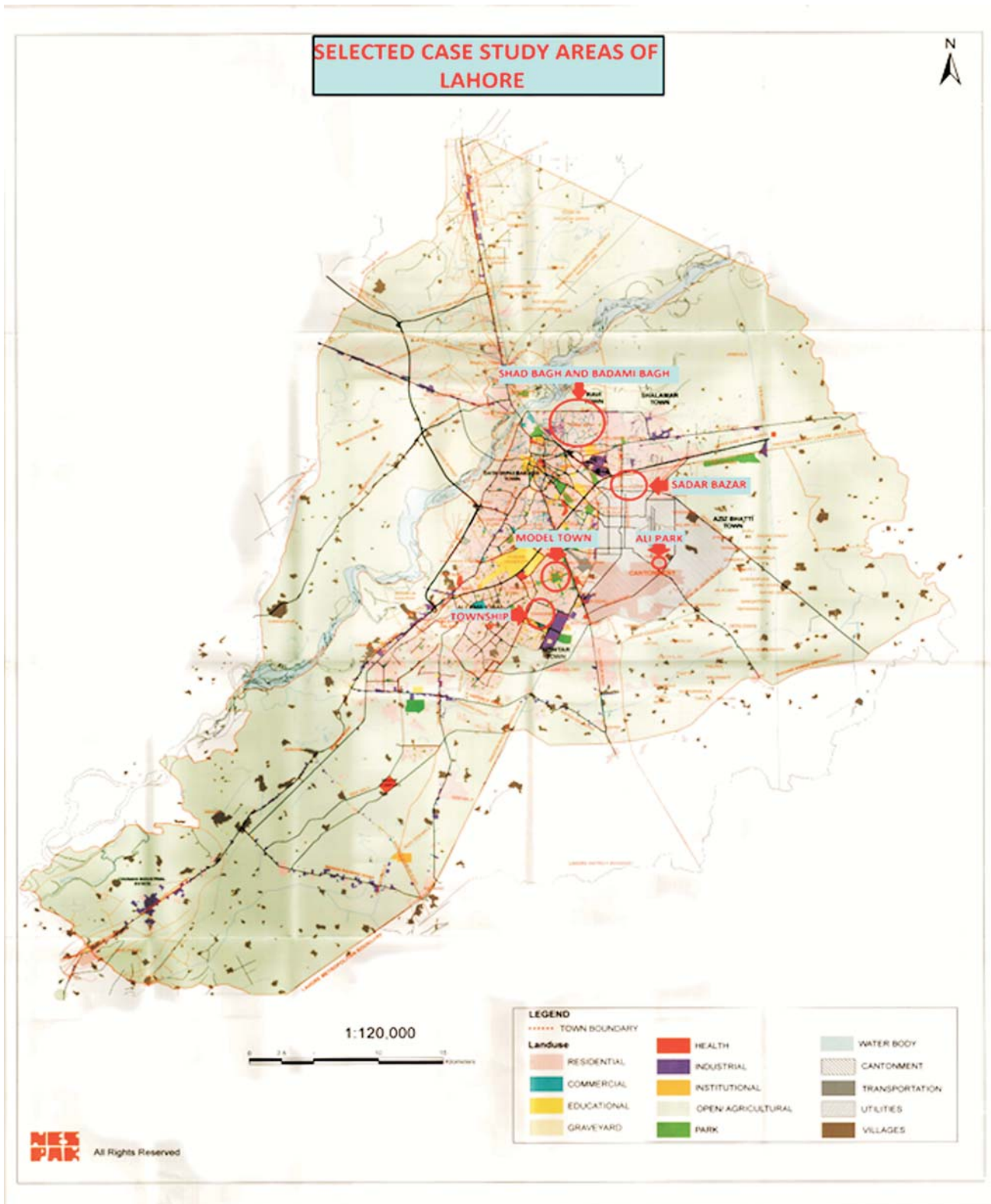
Literature review was done for identifying the best and failing urban practices in different parts of the world with respect to implementation of building byelaws. To have a deeper insight into the subject, opinion from the general public and authority officials have been sought with the help of structured questionnaire forms. Socio-economic survey has also been conducted by stratified sampling (Anon, 2015) on the basis of central limiting theorem

**Table-1:** Authority VS Respective surveyed areas

Authority	Area under the authority
TMA Ravi Town	Badami Bagh, Shadbagh, Misri Shah
Lahore Development Authority	Township Lahore
The Cooperative Modal Society	Modal Town, Lahoe
Lahore Cantonment Board	Sadar, PF Colony. Ali Park



**Figure-1:** Building Control Authorities in Lahore.



**Figure-2:** Map of Surveyed Areas.  
Source: Integrated Master Plan Lahore 2021

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according to which the sample size of thirty is appropriate for any survey. Four case study areas from Lahore have been selected and a sample of thirty from each selected area was collected, making a total of one hundred and twenty questionnaires. The collected data was assimilated and assessed in relation to different factors, leading towards concrete conclusions.

Furthermore, interviews were conducted of officials who are responsible for implementation of building control in their areas.

## LITERATURE REVIEW

Building byelaws have different concept in different countries. In general there are the mandatory spaces, floor area ration (FAR), building heights and parking spaces. Some countries have their own opinions regarding the term building byelaws. They define it as anything which is approved by the development authorities, including façade of building, texture, exterior design, window height and everything covering the size and aesthetics of building.

There are mostly two types of building codes adopted in different countries national building codes and local building codes. The former one includes development of codes by the national government and enforced by central government, while the latter one includes development of building codes by the local area authority, keeping in view certain specific conditions and requirements of concerned areas, for instance requirements of a hilly area may be quite different from those in plain areas.

TK and Dist (2012) have identified three basic reasons of byelaws violation; first is due to high cost of land, second is due to administrative negligence and third is due to unawareness. Lack of monitoring machinery, shortage of technical manpower at the municipal level are the major concern of the municipal councils to control and avoid such violations from its occurrence. Some have felt that the local political influence is also a hurdle in controlling such violations. The researchers have recognized the three-tier system, due to which successful implementation can be achieved, along with real time information and control system and violation reducing mechanism.

Lent (2015) identifies that for building byelaws in Canada two basic things are important; first is the building byelaw itself and the second is the house rules. She has explained difference between these two, house rules are those rule related to city aesthetics, color, material and size, while building byelaws are related to the section of the city which is under the control of a regulating authority.

Developed countries, like UK and Canada, which are efficiently implementing their building codes, are far advance in their regulations. Their advancement is both in types of building codes as well as their implementation strategies. In most of the developed countries, building material, air ventilation, ramp designs for disabled, building façade, window orientation, stair design and much more is considered as part of building byelaws. While on the other hand in Pakistan, building regulations are restricted to only building height, mandatory open spaces, floor area ratio and ground coverage.

It is also a common practice in developed countries to have building regulations available online. In addition to this, many countries offer a facility of online building plan approval. By this facility people can easily submit their plans online for approvals. Many countries have launched different kinds of website on which only by entering locations and dimensions one would get all the information regarding building byelaws. Websites, like e-planning scrutiny, by Madurai Corporation, is an example of this online plan approval system (Anon, 2015a).

## Public Private Partnership

It is a common practice to resolve regulation implementation problems through the participation of public and private bodies. By seeing the benefits of this practice many international governments have become involved in the private, sector to implement building byelaws effectively and efficiently. As the private sector is more responsible, so it governs the implementing authority and ensures successful implementation of building codes. In the case study areas of Lahore, one of the main problems for failure in implementation was the lack of good governance. Authorities had overlapping functions and had no proper chain of command, which meant that they could not have any check, balance and accountability. In the case of Model Town Cooperative Society, due to the involvement of community in the management through an election system, implementation of building byelaws was successful. Thus, adaptation of international practice of involving private sector along the government sector, in instigating building regulations, can improve building regulation practices (Heijden, 2014).

## FINDINGS

The results obtained from the research were majorly an outcome of the following:

- Comparison of authority's jurisdiction area through questionnaires



- An analysis of factors contributing to the effective implementation of building byelaws
- Social factors
- Economic factors
- Organizational factors
- Analysis of the view point of officials through interview performa

The following variables were used to collect the data via questionnaires:

- Household
- Attainment of completion certificate
- Corruption level
- Owner occupation
- Reason for no approval
- Amendment plan approval
- Monthly income
- Plan approval fee per sq feet
- Approved house plan
- Owner education
- Satisfaction of communication
- Official behavior
- Year of construction
- Plan approval time
- Inspection by the inspector

### House Hold Size of respondents

Areas in which on average more than one family per house is living, building byelaws are violated because of accommodation requirement. By this analysis it was found that in TMA most of the houses have two or more families, living in them, as compared to other authorities in Lahore. The case is vice versa for MCS and LCB. In TMA controlled areas the household size is higher as compared to other areas and is one of the reasons for not complying to building regulations (Figure 3).

### Level of education of respondents

The results show that in MCS and LCB mostly respondents were educated up to and above graduation level, but on the other hand respondents of TMA and LDA were not highly educated and had basic education. The hypothesis that education can affect the implementation of building byelaws was not supported according to the findings of this research. Though education brings awareness but in this case the strict implementation of byelaws was more effective rather than education level of residents (Figures 4 and 5).

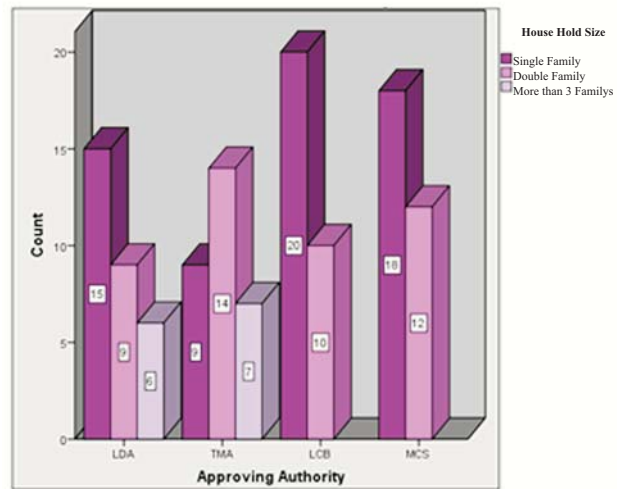


Figure-3: Household size in different jurisdictions.

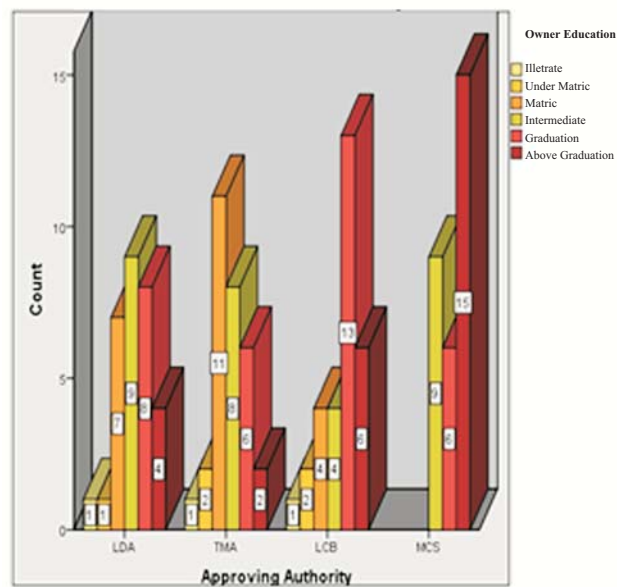


Figure-4: Owner education vs. development authorities.

### Corruption within regulating bodies

After the analysis of this factor it was revealed that MCS can be taken as an ideal case because 100% respondents were of the view that there is no corruption in this authority, and they trust their authority completely. This was one of the main reasons for successful implementation of the building regulations. While on the other hand in TMA most of the respondents did not have any interaction with the authority, so they didn't have any idea about the corruption



level of TMA. According to the respondents of LDA, corruption level was very high, and same was the case with LCB. Confidence level in the authority was thus one factor that lead to better implementation of building byelaws or approval of plans before start of construction by the relevant authority.

### Approved house plan vs. development authority

100% of house plans were approved by the MCS authority, while LCB also had significant control in its area and more than 85% plans were approved from the authority, while LDA had a mixed trend of approved and not-approved status due to weak enforcement. In contrast TMA had a unique behavior showing that more than 70% house plans were not approved from the authority. This was due to old construction of houses and also because the control of authority was weak in the areas under its jurisdictions (Figure 6).

### Inspection by building inspector during construction phase

The research also revealed that inspection visit was part of implementation of building byelaws from authority officials and in the case of MCS and LCB visits were made at the time of damp proof course (DPC) execution. But in the case of LDA and TMA, official visited only 50% of the sites under construction and it was also one of the reasons why there was violation even after approval of building plans.

### Completion Certificate vs. Development Authority

Results also revealed that 100% of the people had completion certificate in the case of MCS, after the completion of construction of housing unit. The basic reason behind this was that the authority did not give connections of basic utilities (electricity, gas) to the people unless until they got a completion certificate from the authority. In LCB almost 50% people had completion certificates, but in LDA only limited people got completion certificates from the authority.

### Plan Approval Fee

The data related to the plan approval fees of residential building paid by house owners represents that MCS takes 36 Rs/ sq.ft for the approval of a plan, LCB charges 6 Rs/ sq.ft, similarly LDA, TMA charge 5 Rs/ sq.ft and 2 Rs/ sq.ft respectively. This trend represents that MCS charges highest and has efficient management system. It also points towards the fact that high plan approval fees also means low corruption levels.

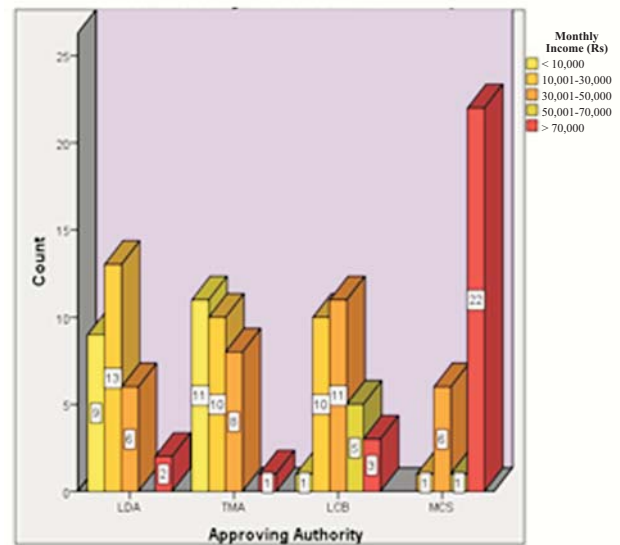


Figure-5: Owner monthly income Vs. development authority.

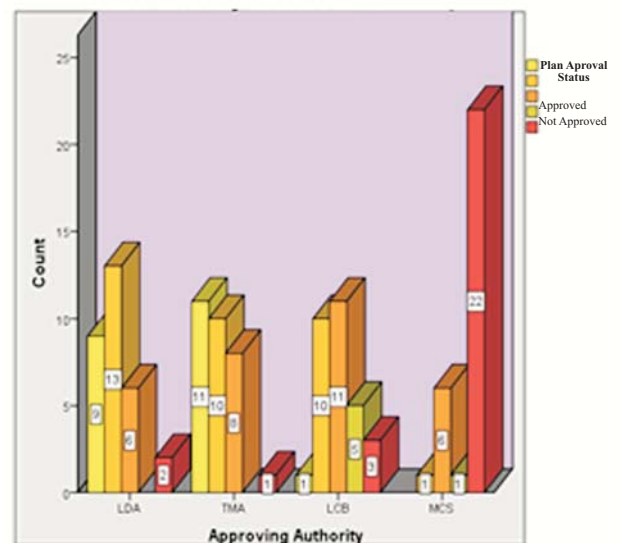


Figure-6: House plan approval Vs. development authorities.

### Institutional Analysis

Qualitative interviews were conducted with officials of all authorities reviewed here. They were asked various types of questions to give a clear picture about their organisations, which further helped identify the factors of success and impediments in implementation of building codes. Questions relating to their work force, logistics, areas which are most violated and the average socio-economic status of people living in these vicinities and set of rules adopted in their

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authorities for building control, were asked. Furthermore, the social factors contributing to implementation as well as the political influence, if any, behind ineffective or effective implementation of building regulations, were inquired. In addition to this, they were also asked whether they have made any efforts to integrate their existing system with international practices as well as what are the good and deficient points of their system.

### **Area Types**

In Model Town there was no division of violated and non-violated areas, according to the interviews conducted, as houses were built according to the byelaws. In Lahore Cantonment the main Cantt area had no violation in which mostly army personal are living and are of high income level and are well educated. Secondly the Bazar Area of mixed development in which some of the houses were built according to the byelaws but others were not. Most of the houses which were not built according to byelaws were very old. Their income level was still high, but education level was average. The most violated areas under LCB were extended areas, which mostly had a rural character and was recent addition to LCB. Their income and education levels were below average. Amongst the areas under LDA, private schemes were non-violated, regular schemes were mixed land use areas and were highly violated. In our case study of TMA none of the areas can be said to be non-violated. Shadbagh can be taken as an example of mixed land use where there was an equal ratio of approved and non-approved building plans. Areas of Badami Bagh and Shadara within TMA were highly violated areas.

### **Span of Control**

As the Cooperative Model Town Society had a small area under its control as compared to other authorities responsible for building control, they did not receive plan approval applications on a daily basis. In LCB on an average three to four applications, in LDA five to six applications and in TMA one to two applications were received daily for approval.

### **Work Force**

MCS has a work force of ten people working for them out of which two are building inspectors two are draftsmen four are assistant road inspectors, two are assistants. These people are using their private logistics for site visits. During the construction of any house they visit the site three times. In LCB six building inspectors are working along with the required staff members for building control and use the transport of the Cantonment Board to make site visits. During

construction of any house they are required to visit the site two times. In LDA, one town planner is responsible for big areas and he does not have logistics for the visit. During the construction of any house he is required to visit the site five times. In TMA Ravi Town there are five building inspectors and twenty to twenty five other staff members responsible for inspection visits and they use private vehicles. During construction of any house they are required to visit the site two times. When it comes to making the site visits only MCS official make regular site visits.

### **Political Influence**

In Model Town there is no influence of politicians and the staff is fulfilling their duties efficiently. In LCB, in some areas there is little political influence but rest of the areas are free from it. Areas under LDA and TMA are facing great political influence, which may be the reason behind their ineffective system as compared to MCS and LCB.

### **Social Influence**

Civic sense, education, income level, community empowerment, sense of responsibility, lack of awareness among people, lack of technical understanding, copying neighbors for violations, ignorance, personal interests, no respect of authorities and pressure group's involvement are all the social factors that are impediments in the implementation of the building byelaws in the various localities.

### **Public Participation**

In Model Town decision making regarding planning issues is done by involving the general public which is why people generally trust their society and cooperate with them. In addition quick inspection and no corruption are other good practices of MCS. LCB has a building control cell, which ensures good scrutiny, proper check and balance and minimizes political influence. But in addition to this in their building byelaws there are some conflicts related to byelaws of five marla houses and bungalows. According to the representatives of LDA, flexibility in their system is a good practice and their deficiencies include lack of public participation and ineffective system of implementation. Sufficient staff members, skilled personal, mechanism for building byelaws implementation are the good practices of TMA and their deficiencies include lack of proper check and balance, under utilised staff, non-technical staff, unawareness of importance of building byelaws and rigid systems of implementation of building byelaws.

**Table-2:** Comparison of Selected Building Control Authorities.

Analysis of Results												
Authorities / Categories	The Cooperative Modal Town Society			Lahore Cantt			Lahore Development Authority			TMA Ravi Town		
Approved : Not Approved	1:0			4:1			1:1			1:5		
Characteristics	Non Violated Areas	Mix Area	Violated Areas	Non Violated Areas	Mix Areas	Violated Areas	Non Violated Areas	Mix Areas	Violated Area	Non Violated Areas	Mix Area	Violated Area
Area Division	Whole area			Main Cantt	Bazaar Area	Extended Area	Private Schemes	Regular Schemes	Controlled Area	None	Shadbagh	BadamiBagh, Shahdra
Income Level	High			High	Middle	Middle/Lower	High	Middle	Less		High	Middle/Lower
Education Level	High			High	High	Medium	High	High/Medium	Low		Medium	Medium/Lower
Occupation	Traders, Entrepreneur, Bureaucrats			Army Officers, Entrepreneurs	Army Officer, Govt Employee	Army Officer, Govt./ Private Employee	Entrepreneur, Govt. Employee	Govt. Employee	Private Employee, Workers		Entrepreneur	Govt. Put Employee, Entrepreneur
Average Daily Building Approval Application	No one on daily basis			3-4			5-6			1-2		
Total Work Force	10			30			1			30		
Division of Work Force	Building Inspector: 2, 2 Dross man site, 4 Assistant road inspection, 2 Assistant			6 Inspector, Demolition			1 Site Inspector			5 for Site Inspection		
Total Visits for inspection	3			2			5			2		
Logistics	Private Motor Bikes			3 Govt. Vehicles			Private Vehicle			Personal vehicles		
Law/ Act Applicable	The Cooperative Modal Town Housing Society Act 1962			Building Byelaws 2008			LDA Land use Rule 2014			PLGO 2001, Land use Classification and Reclassification Rules 2009		
Political Influence in implementation	No			No influence before Elections, MNA will Influence after Elections			MNAs, MPAs, Social Media too much influence in implementation			Too much political influence in implementation of building byelaws specially in commercial and industries		
Effectiveness of Social Factor	General Meeting of Public			Civic Sense, Education and Income Level of Persons			Community Empowerment, Sense of responsibility, Education			People who take bank loan for construction they follow building byelaws		
Ineffectiveness of Social Factor	None			Pressure group Involvement			Illiteracy, Ignorance, Self-interest, No respect of Authority			Lack of Awareness among people, Lack of technical understanding among people, Copying own neighbor for violation		
Positive Points of System	Small Area, Quick Inspection, No Corruption, Decision through meeting			Building Control Cell, Good Scrutiny, Proper Check and Balance, No Political Influence			Flexibility			Sufficient Staff member, Skilled Person, Proper mechanism for building byelaws implementation		
Negative points of System	None			Conflict in Byelaws for Bungalows and 5 Marla House, Corruption, Time Delay, Less Salary Package			No effective system of implementation, Lack of people participation			Not fully utilize Staff, No proper Check and Balance, Non-Technical Staff; unawareness of importance of building byelaws, Rigid System of implementation		
Suggestion to improve the efficiency of system	Division of Large area for other authorities will help in efficient implementation			Remove the conflicts in building byelaws, Presence of Accountability			Capacity Building of Institutions, Provision of efficient staff should present and provide the logistics to the people, Less involvement of politics in implementation			Corruption should remove from the system, try to lessen the political impact on implementation		

## Overview

Table 2 compares the four authorities reviewed here, in terms of implementation of building byelaws, highlighting the social, economic and organizational factors in the implementation phase and emphasizing the difference in the setup of the authorities. Out of all, it has been assessed that MCS turns out to be the best functioning authority in terms of building controls implementation.

## Conclusion and Recommendations:

The importance of building byelaws cannot be negated in the field of town planning due to its grave importance. In this research the reasons and factors which help the authorities to successfully implement building regulation in their control areas have been identified. General public as well as the

organizational behavior of authorities is involved in effective implementation. From the analysis it is concluded that plan approval of house is not dependent on household income and occupation of residents but, community participation and good governance impact upon implementation of byelaws. Thus, it is concluded that amongst the for authorities reviewed here, Model Town is working most efficiently because they have a small control area with less population density and they ensure public participation in every new decision regarding building byelaws. Lahore Cantonment Board, which is responsible to implement byelaws in Cantonment area, have building byelaws which are not up to the standard of Model Town, but their strict scrutiny ensures efficient implementation of building byelaws. LDA has a well-established administrative structure, but the factor of corruption hinders its efficient implementation of byelaws

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and regulations. In addition to this they have large control areas and high population density, similar to areas under TMA. Existence of old houses also becomes a hurdle in the implementation of building byelaws. Lastly it can be concluded that the success of building byelaws and regulations is largely dependent on public participation and awareness.

## **RECOMMENDATIONS TO IMPROVE THE IMPLEMENTATION OF BUILDING BYELAWS**

### **Public participation**

Public participation should be ensured while making decisions by the authorities so that people own them. This also establishes a sense of ownership amongst the public. In MCS they invite general public and their views are heaved before making any type of changes in the existing byelaws. This approach should be adopted by other authorities too.

### **Flexibility**

Flexibility, in terms of building design, should be given to the general public by the authorities while building their

houses. Different options should be given to the public so they can opt for the one which best suits them. For instance in Lahore Cantonment Board the final authority is in the hands of Board's members and they can approve the plan after analyzing the current situation regardless of approved byelaws. This helps in considering the users needs to implement byelaws efficiently. The best practice is to set minimum safety standards and leave choices for dwellers with elaborated standing operational procedures outlined.

### **Good Governance**

In order to reduce corruption level in authorities like LDA and TMA proper check and balance should be introduced by the higher authorities. Accountability of the staff members should be ensured and a clear chain of command and good governance should be provided.

### **Updated Building Byelaws**

Building byelaws should be updated after appropriate intervals according to present needs. Online resources should be developed that can calculate the fee, provide easy access to building byelaws and the process of applying for approvals.

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# DOCUMENTING THE ARCHITECTURAL CHARACTERISTICS OF CATHEDRAL CHURCH OF RESURRECTION, LAHORE

*Faiqa Khilat\**  
*Dr. Muhammad Yusuf Awan\*\**  
*Sana Malik\*\*\**  
*Beenish Mujahid\*\*\*\**

## ABSTRACT

The Cathedral Church of the Resurrection is a spectacular, monumental structure having distinctive features of Gothic architecture located on Mall Road, Lahore. In the nineteenth century, British rulers developed this road as the foremost city centre after they established their government in the area. Other important buildings situated on this road are High Court, General Post Office, Town Hall, Montgomery Hall, Punjab University, Atchison College, churches and cathedrals. Among various structures, the enormity of this Cathedral reflects its glory in cosmic green meadows. The artistic style of Gothic architecture introduced by the British is truly represented in this monument. Every day, many Christians visit this church to perform their sacramental obligations. In addition, the Cathedral includes a missionary school, known as Lahore Cathedral School. The structure seems to be intact, but a closer examination reveals the reality of major aspects in need of attention. This research was carried out by closely scrutinizing numerous fragments of the Cathedral through surveys and photographic documentation. This paper highlights the distinct character of the monument by assessing its architectural features in detail and concluding various measures needed to conserve the monument's heritage.

**Keywords:** Gothic, architecture, church, monument, Cathedral

## INTRODUCTION

The city of Lahore was conquered by the British in mid nineteenth century which was when the city spread outside

the Mughal's Walled City of Lahore (Figure 1). Considering the potential of the city, the British introduced new building typology and architecture in the city in terms of educational institutions, railroads, shopping malls, museums, courts, churches, and cathedrals (Glover, 2011).



**Figure-1:** Lahore city during the British Period (Morris and Winchester, 2008).

- \* Faiqa Khilat, Assistant Professor, School of Architecture and Planning, University of Management of Technology, Lahore.  
Email correspondence: faiqa.khilat@umt.edu.pk
- \*\* Dr. Muhammad Yusuf Awan, Professor, School of Architecture and Planning, University of Management of Technology, Lahore.  
Email correspondence: yusuf.awan@umt.edu.pk
- \*\*\* Sana Malik, Assistant Professor, School of Architecture and Planning, University of Management of Technology, Lahore.  
Email correspondence: sana.malik@umt.edu.pk
- \*\*\*\* Beenish Mujahid, Lecturer, School of Architecture and Planning, University of Management of Technology, Lahore.  
Email correspondence: beenish.kujahid@umt.edu.pk

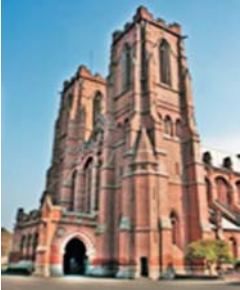







Today many significant architectural edifices of British rule can be found in the city of Lahore. The British mixed the Mughal and British construction styles known as the Anglo-Mughal style, or hybrid style. Many examples of this style still exist in Lahore, most prominent of which are Bank of Bengal, Central Post Office, Punjab Club, Supreme Court, Department of Public Works, Government College Lahore, Central Model School, Lahore Museum, University of Punjab, Tollinton Market and Town Hall. Pictorial representation of these buildings is shown in Table 1. Moreover, the grand structure of the Cathedral Church of the Resurrection was built in the Neo-Gothic style. The residents of Lahore commonly refer to the Cathedral Church as *Kukar Girja* because of a weather cock that was mounted on the top of the Cathedral.

Today, the Cathedral Church of the Resurrection, Lahore, is the centre of the Lahore Diocese, which was carved out of the Diocese of Calcutta, the largest Anglican diocese in South Asia, in 1877, which included the area up to Delhi,

East Punjab, Kashmir, Afghanistan, with some responsibility for the southern states of the Persian Gulf (Aijazuddin, 2004).

Among all the other cathedrals of Lahore, this magnificent structure is an example of Gothic architecture, which resembles cathedrals found in Europe, specifically the Norte Dame and Charte Cathedrals in France. The Cathedral is a unique illustration of purely Neo-Gothic features, portraying an enormous monument standing on the ground with pointed arches, flying buttresses lancet and stained glass windows. These splendid structures and their architecture are tourist attractions. The conservation of these monuments is necessary to enhance their value. The building should be preserved in order to withstand future hazards which could cause its decay in any manner. This research aims to document this significant heritage structure before it loses its original form. It highlights and identifies the history, the existing condition and various architectural features of the historic edifice.

**Table-1:** Renowned Edifices Constructed on Mall Road, Lahore, during the British Period (Punjab University to Punjab Assembly)

Building Construction During British Period	Pictorial View	Building Construction During British Period	Pictorial View
Cathedral Church of Resurrection		Tolinton Market	
Punjab Univeristy, Old Campus		National College of Arts	
Lahore Museum		Town Hall	
General Post Office		Junjab Assembly Building	



## Selection of Case Study

The selection of the case study is based on its regional context and architectural value. Since Pakistan's independence, the construction of cathedrals has been restricted as they are a religious symbol of the Christian community, one of the country's minorities. Although this Cathedral premises contains other important historical buildings, such as the Government College University (GCU), this particular building is in a constant state of neglect. Since buildings of such nature are non-profitable, they are excluded from development plans and policies at a national level.

## Location

The Cathedral Church of the Resurrection is located on the Mall Road, just opposite the Lahore High Court. The Cathedral is also adjacent to McLeod Fane Road. All of these roads have a continuous flow of traffic causing noise. Inside the site is a green lawn with dense vegetation, and the eye-catching monument of the Cathedral of the Resurrection (Figure 2).

## RESEARCH METHODOLOGY

The qualitative research was carried out by detailed surveys of the site and an interview with the supervisor of the Cathedral. The research was further substantiated by review of relevant literature. International cathedrals were also studied in regard to Gothic architecture to compare them to Lahore heritage. Furthermore, the structure of the Cathedral Church of the Resurrection was analyzed, and conclusions were drawn for physical improvement and conservation of the monument.

## LITERATURE REVIEW


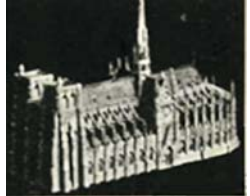


### Gothic Architecture

Gothic Architecture was developed in Western Europe in about 1150AD to 1500AD as a distinctive style due to its features. It originated in France and spread throughout the rest of Europe, including countries like England, Germany, and Spain (Gosh, 2010), during the time known as the Medieval Period. It originated from Romanesque Architecture and prospered through Renaissance Architecture. The master builders produced new building techniques and projects. The widespread competition between monasteries and bishops for this style of cathedrals played an instrumental role in the culmination of Gothic Architecture. Its fundamental characteristic was its height, and general features included

the pointed arch, the ribbed vault and the flying buttresses (Wilson, 1992). Internationally, the Lahore Cathedral can be compared to other English and French Cathedrals as shown in Table 2 (Fletcher, 1994).

Another example of Gothic Architecture in the sub-continent is the The Lady of Dolours Church, located in Thrissur, Kerala, India (Figure 3)(Vadakkekara, 2007). This Church is one of the largest churches in India and is known for its

**Table-2:** International Gothic Style Cathedrals (Fletcher, 1994).

English and French Cathedrals	Pictorial Representation
Durham, England	
Norte Dame, Paris	
Amiens Cathedral, France	
Wells Cathedral, England	



**Figure-2:** Aerial view of the Cathedral Church of the Resurrection.



Gothic architectural features. Another example of Gothic Architecture in the sub-continent is the Lady of Dolours Church, located in Thrissur, Kerala, India (Figure 3). This is one of the largest church in India. It was established in 1814, and the existing structure was constructed in 1929. Its interior decorations and paintings are well maintained (Figure 4) (India Opines, 2017).

### Urban developments during British Period in Lahore

Lahore served as the capital of the sub-continent during the Mughal Period. The Mughal kings spent maximum resources on this city and made it grand. In the middle of the eighteenth century the British rulers occupied the city and made many major developments.

Because of its prime location, Lahore received a great deal of colonial attention. New and modern buildings were constructed. Infrastructure was improved. Most of the development during the colonial period took place outside the old fortified city of Lahore. Some of the localities developed during the colonial era are discussed here:

#### *Lahore Cantonment*

The first and foremost development made by the British was the Lahore Cantonment, which was of great significance to the British Army. Barracks were built for British officers and soldiers.

#### *Civil Lines*

As the name implies, Civil Lines was a residential area for civilians. At the time of its development, Civil Lines was a green area of Lahore with low rise bungalows embedded within big lawns, housing the elite.

#### *Saddar*

The word “saddar” in English means “president”. Saddar was the head point of Lahore, in the midst of extensive shops

and plazas, Saddar during the colonial era was the center of all commercial activities taking place in Lahore.

#### *Mall Road*

Mall Road was a boulevard developed by the British, housing many public structures. The name “Mall Road” is used in many cities today, which were developed in the British era, for example Murree Mall Road, Rawalpindi Mall Road, etc. The British architectural developments of the Anglo-Mughal style can be seen on the Mall Road. Among all these various British constructions is the grand structure of Anglican Cathedral in Neo-Gothic Style.

### THE CATHEDRAL CHURCH OF THE RESURRECTION

#### Historical Background

The first cathedral in Lahore was constructed with the permission of Emperor Akbar. In 1595 he approved the construction of a church in close proximity to the fort, but it shut down in 1614, on the order of Emperor Jahangir. At this time, the true representation of the Christian community and their rituals began.

Many British administrators and experts arrived in Lahore during the construction phase of churches and cathedrals. The Cathedral Church of Resurrection was first placed in Anarkali Tomb, but, afterwards, the British constructed this magnificent cathedral at its present location in 1887.



Figure-3: The Lady of Dolours Church, India.



Figure-4: Interior Views of the Lady of Dolours Church, India.



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## **Memorials**

The Christian community claims responsibility for many memorials in the Cathedral because of their ritual importance. They associate the Cathedral with different people. One of the dominating memorials is the ancient Taxila Cross found in 1935 near the site of the ancient city of Sirkap. The Cross is placed on the wall on the north side of the chapel. The structure is also well known for its stained glass windows, pipe organ and a clock manufactured in 1862 (Aijazuddin, 2004). These were gifted by many known people among the Christian community. The Red Cross erected at the Southern lawn of the Cathedral, is the cross put on the roof of the Anarkali Tomb and removed in 1927 and placed here.

The Cathedral is home to some splendid stained-glass window pieces, containing symbolic figures. The glass work on them has been repeatedly appreciated as a rival to the glittering jewel, reflecting the windows of French Gothic Cathedrals. Another window on the western side of the nave is decorated with the traditional lights, which memorialize Bishop Mathew's contributions.

## **Ownership and maintenance**

All the churches in Pakistan come under the structure of "Churches of Pakistan" (with a total of eight bishops). The Diocese and the Lahore Cathedral come under the "The Lahore Diocese", which covers the areas from Sahiwal to Narowal and Islamabad to Murree. Each Diocese is headed by one bishop and additional priests. Currently, the Lahore Cathedral is headed by Bishop Irfan Jamil and Father Shahid P. Meraj. According to the Bishop and Father until now, the Government of Pakistan has not helped with the maintenance of the Cathedral and the Diocese raises necessary funds for maintenance on its own.

## **Changes brought to the building structure**

The foundation of the Cathedral was laid in 1874, and the structure was completed in January 1887. However, the two towers with tall spires were added in 1898, (Figure 5). The spires were demolished after the earthquake of 1911 for safety reasons (Figure 6) (Clerkin, 2009).

As a result of the earthquake the roof of the cathedral was damaged and so were the walls and interior of the church, which was re-constructed. This project was executed by the collaboration of two consultants: Civil and Urban Engineers and Pervaiz Vandal and Associates. The renovation project for the roof began on March 14<sup>th</sup>, 2005 and was completed in April 2008 (Church of Pakistan, 2004).

## **ANALYSIS AND DISCUSSION OF CATHEDRAL CHURCH OF RESURRECTION, LAHORE**

### **Horizontal Arrangement of the Building**

This Cathedral is a typical Latin cross plan, as depicted in Figure 7, incorporating Gothic revival features having dominant elements of height, pointed arches, flying buttresses, plate tracery, trefoil quartrefoil openings and stained glass windows. The length of the Cathedral in the east-west direction is 226 feet, which includes the 70 feet choir. From the nave to the steps of the choir the distance is 110 feet. The ambulatory of the Cathedral is 15 feet wide. The width of the transepts in a north-south direction, including the porches, is 152 feet (Clerkin, 2009).

### **Vertical Arrangement of the Building**

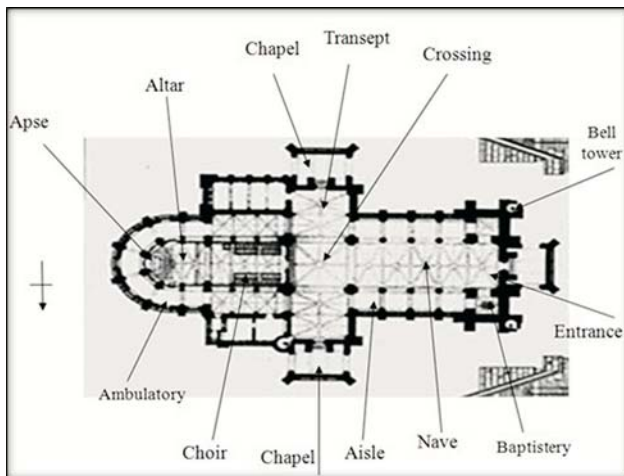
The front façade, of the church has Gothic elements like plate tracery, oculus windows, trefoil, quartrefoil openings, flying buttresses and sloping roof, which have been



**Figure-5:** The Cathedral Church of the Resurrection with Spires.



**Figure-6:** The Cathedral Church of the Resurrection without Spires.

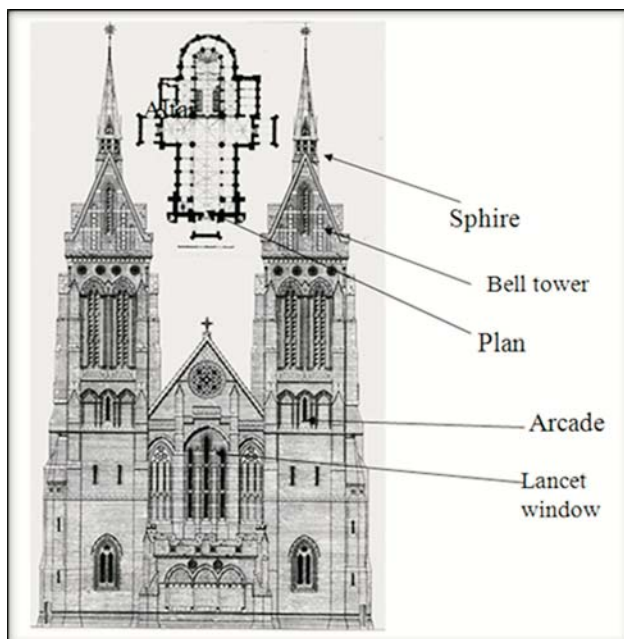


**Figure-7:** Plan of the Cathedral Church of the Resurrection.

highlighted in Figure 8. The porch, or the entrance portal is 31 feet long. The height of the vault is 65 feet. The maximum existing height of the bell towers is 120 feet. The interior features of importance are the oculus windows with quartrefoil design elements, stained glass windows, and collonettes (Figures 9 and 10).

## DOCUMENTATION OF ARCHITECTURAL CHARACTERISTICS

The architectural analysis of the Cathedral Church of Resurrection highlights those elements that have had major or minor changes done to them with the passage of time.



**Figure-8:** Front Elevation of the Cathedral Church of the Resurrection.

Major features which have changed include interior and exterior walls, entrance portal, the roof, bell towers and other specific features such as the main hall and the orchestra. The reasons for the deterioration of various features of this edifice have been documented (Feilden, 2003).

## Walls

### Exterior Walls

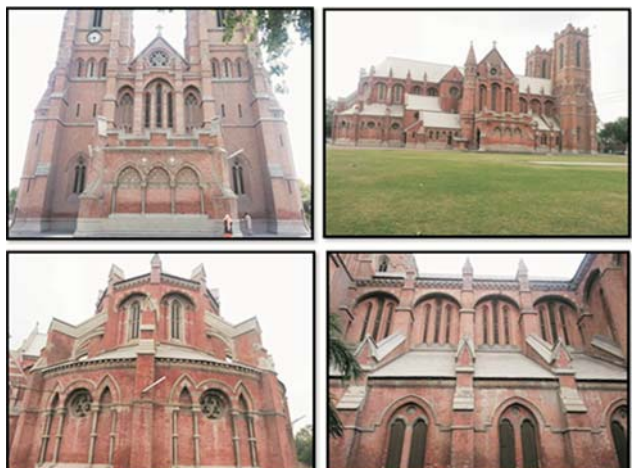
The structure seems to be intact but the brick courses have deteriorated upto three to four feet above ground level. The four-sided views of the Cathedral are shown in Figure 11. The plastered decorative features on the flying buttresses are also in poor condition. These red bricks were prepared from soil specially brought from Jhelum, Pakistan (Aijazuddin, 2004). The plaster was composed of cement and sand.



**Figure-9:** Decorative Collonettes on the Walls around the Nave.



**Figure-10:** Oculus and Stained Glass Window Openings.



**Figure-11:** Four-sided views of the Cathedral.



Figure 12 shows close views of the exterior wall where bricks have deteriorated. Bricks and cornices of the western façade have deteriorated due to dampness. The blind arcade on the western facade of the Cathedral has also been extensively damaged by dampness. The surface bricks and mortar have been strongly affected. Furthermore, on the western façade, the construction steel is exposed in various places.

### ***Interior Walls***

The dampness has affected both the exterior and interior walls which of the Cathedral (Figure 13). The northern aisle's inner surface area where dampness has affected the walls is about three to four feet above the foundation.

### ***Exterior Roof***

The sloping roof is in better condition because it was repaired in 2008. Other surface areas of the roof, including the nave and aisles top covering (barrel vault), side entrances and parapet walls need to be renovated (Figure 14).

### ***Interior Roof***

The interior roof has been conserved using the original materials of construction. The wooden planks require less maintenance. During 2008 conservation of the roof, almost

all new wood was used, some of the original wooden planks were also reused in this process. This structure seems to be intact now (Figure 15).

Moreover, the inner ceiling of the main hall and entrance portico have been affected by the rain water from the roof (Figure 16). The affected interior and outer areas require conservation before they get further deteriorated. Dampness has caused the bricks to lighten in colour in the walls and vaults of the Cathedral.



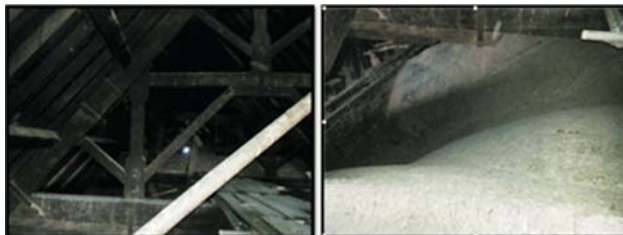
**Figure-12:** Closer views of exterior affected by dampness.



**Figure-13:** The northern interior wall affected by dampness.



**Figure-14:** Different views of roof top.



**Figure-15:** Views of vaults and repaired roof from the northern side access door.



**Figure-16:** Ceiling of entrance portico and main hall.

## Bell Towers

### Exterior

As discussed earlier, the bell tower had tall steeples at the top, which were removed after the earthquake in 1911, because of their unstable condition. The existing condition of the tower is shown in Figure 17. From the ground, three feet of the brick foundation has been affected by dampness. The rest of the facade has some minor deterioration in the plastered areas.



**Figure-17:** View of the Tower reaching great heights including gothic details of pointed arches, buttresses, trefoil openings, and sloping roof at the rear.



**Figure-19:** Views of Bell room.

### Interior

Figure 18 shows the stair hall leading to the bells at the top and the approach ladder to the bell tower. The different views of the interior of the bell room at the top of the bell tower are shown in Figure 19. The wall structures are intact; the wooden ladders, approach to the wooden roof and the hanging bells are in good condition. The wooden cabinets are however in poor condition.

### Main Hall

#### Nave and Aisles

The main hall consists of a nave with side aisles (Figure 20). This hall is the main area of the Cathedral and shows its grandiosity. Upon entering through the main door, one is struck by its height and amazing gothic features of arcades, piers, alternations, traceries and stained glass windows.



**Figure-18:** Interior views of the access stair hall.



**Figure-20:** Nave with side aisles of the main hall.



### Altar

In Christianity, the altar is considered to be the most sacred part of the Cathedral and is used for ritual ceremonies (Watts, 1883). The altar of this Cathedral is located at the eastern half surrounded by an ambulatory (Figure 21). It has a prominent table with golden background containing ritual components.



Figure-21: Main altar of the Cathedral.

### Orchestra

This is the most extensively damaged part of the Cathedral. Rain water coming from the damaged roof has ruined the historical orchestra room. Further, the termites have damaged its internal and wooden areas. The floor of the orchestra room is totally damaged due to rainwater and termites. Different views of the orchestra room are shown in Figure 22.



Figure-22: Views of the Orchestra room of the Cathedral.

### CONCLUSIONS

On the basis of the documentation and analysis of the Cathedral it can be concluded that the building, which appears to be in sound condition, has many areas that need to be repaired immediately. The significance of its heritage should be of prime importance. The materials to be used for its repair should adhere to the international rules for conservation of monuments. Starting with the walls, serious consideration should be given to the dampness that has affected the walls up to the height of three feet from the ground and further at the edges of the roof. Surface treatment is required and the source of moisture needs to be removed, which can be achieved by water proofing the walls from their base and on the edge of the roof. The plaster of the surface decorations both inside and outside of the cathedral, must also be repaired. The major element of neglect of the Cathedral, that is unique to its own kind, is the Orchestra Room which should be maintained and made operational. It has been ruined by voracious termites. Proper repair and termite treatment will enhance the value of this distinctive

feature. Another significant element of consideration is the repair and maintenance of the bell towers of the Cathedral. The holes in the walls and broken wire mesh on the windows have enabled birds and pigeons to enter and make their nests, which has affected the building as a whole because their droppings block rainwater pipes and enable grass to grow at certain points on the roof. Bird repellent should be applied on the outer surface of the walls, and the wire mesh of the windows requires immediate repair. The bell room has also been affected by the bird excretions, and the wooden cabinets need to be replaced. Considering the significant heritage of such a unique edifice, its safeguarding will be beneficial for its international recognition.

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## **ASIAN HERITAGE MANAGEMENT -CONTEXTS, CONCERNS AND PROSPECTS**

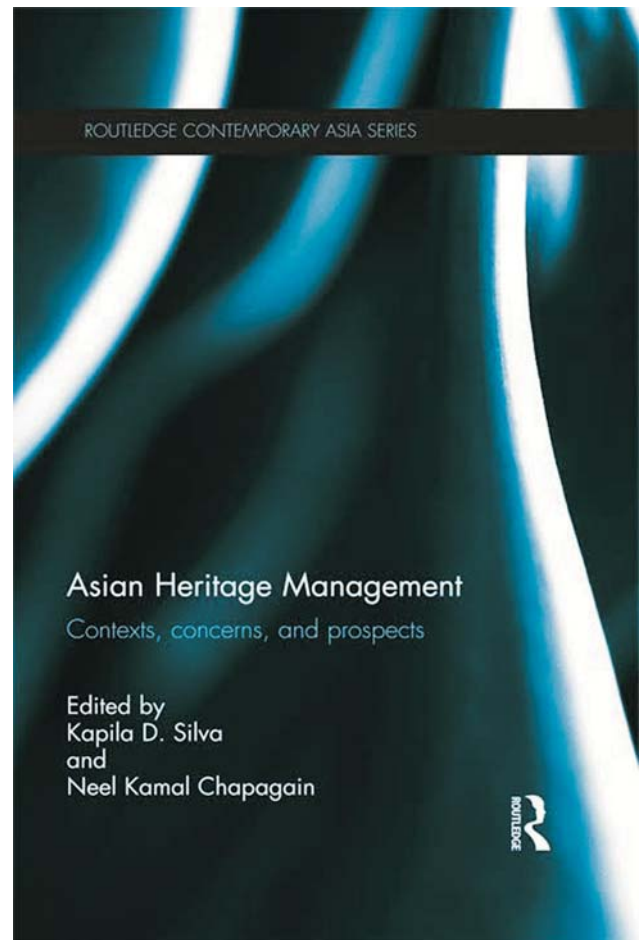
*Neel Kamal Chapagain and Kapila D Silva (eds)*  
**A Publication of Routledge**

A Review by Masooma Shakir\*

'Asian Heritage Management' is part of the Routledge Contemporary Asia Series and is a scholarly compilation of research papers from different parts of Asia. It puts together the complex albeit intriguing task of presenting the multifaceted nature of heritage management in Asia. On the one hand, local traditions have historically played a major role in the maintenance of many Asian heritage sites. These are accompanied by indigenous / native communities, rituals, informal practices and customs. Simultaneously, on the other hand, formal institutional practices of heritage listing, conservation and management exist alongside.

The book edited by Kapila D. Silva and Neel Kamal Chapagain is an essential contribution to the subject currently debated and discussed in international circles of heritage institutions. The book is divided into three major parts, highlighting firstly the contexts through case studies from the region, second the concerns regarding heritage management and third the future prospects, by design, planning and management that can be looked at. As Chapagain writes in the introduction of the book, the demarcation between the three aspects is not too clear and unambiguous, and overlaps are common within the research papers. The introduction and the epilogue put together the subject and attached dilemmas across very well in theoretical terms and international practice. They connect to the larger overall international debate and issues and present how the various articles are examples of the multiple issues of the context, pointing toward the need for independent Asian charters for heritage conservation and management. They elaborate on the broader scope of heritage in Asia, where the relation between the people of the regions and their cultural associations to places of historic importance is deep rooted. Chapagain points toward the engagement of 'heritage' within a cultural process without which it is insignificant.

The intangible aspects and values of heritage within the Asian context are a defining and driving force for their historical continuity and traditional management practices.



National interpretations of heritage and the formal processes take a differing but official stance on such heritage too. While the latter is driven by formally trained professionals, the former happens without a formally drawn management plan.

Various chapters in the book together are able to cover the salient issues concerning the informal local traditional and the formal institutional practices of heritage conservation and management. The research case studies provide the

\* Masooma Shakir, Assistant Professor, Department of Architecture and Planning, NED University of Engineering and Technology, Karachi and Email correspondence: masooma\_m@hotmail.com

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various instances of conflicts in these practices and the perceptions of heritage and conservation at the different levels from the individual, to clan, community, national and global. The 'Asian worldviews on conservation' in the contexts section include an article each on the Hindu, the Buddhist and the Islamic views and perspectives on conservation of heritage. Religion as the editors and the authors of the articles suggest, plays an important role in defining the significance of commemoration. Within the same part of the book, a subsection consists of research papers under the national heritage management frameworks in specific contexts (China and Pakistan are included in these).

The colonial history provides some linkage to the making and enforcement of policies and regulations at the formal level. The instances provide an exploration of the identification of the gap between traditional conservation and contemporary conservation.

The second part of the book titled 'Concerns' highlight the clash of values between traditional and modern nationalistic frameworks. While the former attaches greater significance to intangible associations, the latter regards the physical form to be of monumental value as a marker of the past. Ken Taylor and Amita Sinha highlight the presence of 'heritage' as a landscape / cultural landscape. Globalization and significances attached to physical form of heritage structures has led to commodification processes as a major phenomenon that an abundance of cases through Asia itself have become subjected to, destroying traditional, attached social context and highlighting the issues of 'sustainable tourism'.

The third and last section of the book titled 'Prospects' is the most interesting, in my opinion, as various academics and

practitioners aim to provide a different way of contextualizing heritage management approaches through concepts and tools within Asian settings. For instance, Syed Abidin Idid and Dilsham Ossen propose the tool of Heritage Impact Assessment for heritage management. Similar to Environment Impact Assessment, they suggest impact assessment for heritage when undertaking planning processes particularly in urban historic areas.

Jamie MacKee in her article, adopts a unique methodology to explore overlapping and differing links between Buddhist philosophy and Systems Theory to theorize the management of Buddhist cultural heritage within the South / Southeast Asian context.

Tara Sharma through her research field work with communities in Ladakh, India suggests that it is the local people's / communities perceptions and memories that could determine the significance of a heritage site, as opposed to its valuation on the basis of its objective history and design features. She asserts that the conservation strategy should infact start from understanding how the communities are maintaining their heritage.

Altogether the compilation of research articles in the volume has tried to point toward the multi-dimensional nature of Asian heritage, requiring a multi-disciplinary approach for effective management that respects and integrates traditional values. It adds to the scholarship that exists internationally and in Asia on the subject of heritage management. It is a valuable resource for academics, professionals, researchers, practitioners particularly officials into policy making, on the subject of heritage providing directions for future development on the subject.





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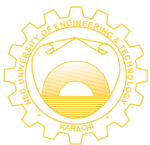
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**City Campus** | Maulana Din Muhammad Wafai Road, Karachi - 74200 PAKISTAN  
**Phone** | (9221) 99213058 (9221) 32620793 **Fax** | (9221) 99213058 & 99261255  
**Email** | [jrap@neduet.edu.pk](mailto:jrap@neduet.edu.pk) [crd@neduet.edu.pk](mailto:crd@neduet.edu.pk)  
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NED University of Engineering and Technology,  
University Road, Karachi-75270.  
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