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Vol. 1



City Development Strategy

AND CITY ASSISTANCE PROGRAMME

Kathmandu Metropolitan City



City Development Strategy

AND CITY ASSISTANCE PROGRAMME

K a t h m a n d u M e t r o p o l i t a n C i t y

Kathmandu Metropolitan City / World Bank

JANUARY 2001



काठमाडौं महानगरपालिका कार्यालय
Kathmandu Metropolitan City Office



पत्र संख्या:-
चलानी नं.:-

2nd February, 2001



Kathmandu is a modernizing city with a glorious history and heritage to be proud of. During the past three years of my tenure, the Metropolis Government has welcomed the challenge of striking a balance between modernization while preserving and nurturing our city's historical characters. In those years, the most I have come to appreciate about Kathmandu is its vitality, its willingness and perseverance to go on against all odds, whatever they may be.

It is against this backdrop that I have tried to bring before you our City Diagnostic Report and City Development Strategy. My interactions with the CDS team and their capable counterparts from KMC, during their continuous seven-month effort in the preparation of these documents, has given me full confidence in vouching for the usefulness of both the documents. I also take the opportunity to guarantee my administration's unfailing support in following the strategic guidelines that CDS has recommended.

I am confident that the City Diagnostic Report will provide necessary insight information on Kathmandu and the City Development Strategy will have paved the way for essential rebuilding and revitalizing activities that our city needs. The documents would have done their job if they find ways to give more impetus to the vitality of our city, because, that is what will keep our city moving and ever vibrant.


Keshav Sthapit
Mayor



काठमाडौं महानगरपालिका कार्यालय
Kathmandu Metropolitan City Office



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OFFICE
2052

2nd February, 2001



The city of Kathmandu is undergoing great changes as we try to meet the demands of rapidly growing population and at the same time establish ourselves as an efficient and effective local government. In this time of transition, the greatest challenges for us is to manage this change. The City Development Strategy is an exercise to guide this change towards a direction we all want to go.

In this process, the Diagnostic study has compiled all the scattered but relevant information on the current state of Kathmandu into one report. I hope that this report will help us develop clear understanding regarding where we are and the direction in which we are headed. It also points out major issues that are of concern to us as Kathmandu moves into the new millennium.

The City Development Strategy itself will point out the direction we want to go based on the findings of this Diagnostic Report and our common vision for the future of Kathmandu. I call on all citizens of Kathmandu and relevant authorities to study this report in detail and assist the Kathmandu Metropolitan City in creating a Strategy which will guide us in creating a Kathmandu we are all proud of. Thank you.

Bidur Mainali
Deputy Mayor



काठमाडौं महानगरपालिका कार्यालय Kathmandu Metropolitan City Office



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BEYOND CDS

2nd February, 2001

Formulating City Development Strategy was a unique experience for KMC. This document has revealed many issues which are extremely important for KMC and to take appropriate initiatives immediately is even more important.

Now that the CDS has been finalized, KMC will need to develop long-term implementation strategies. For this, the KMC authorities will be soliciting support from all the concerned citizens, donor agencies and above all the private sector organizations. Our commitment to implement CDS is dependent upon the support from all the sectors.

I would like to express my sincere gratitude to the World Bank, the consultant team and hundreds of individuals who supported in formulating this document.

Beyond CDS, we have even greater challenges and together we can make a difference.

Surya P. Silwal
Act. Chief Executive Officer
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ABOUT THIS DOCUMENT...

(A note from the KMC counterpart and WB Consultant Team)

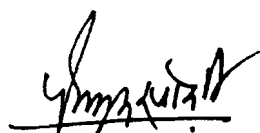
The 'City Development Strategy' CDS for Kathmandu Metropolitan City (KMC) was prepared over July 2000-January 2001. The CDS has been prepared exclusively by a team of national consultants with valuable inputs from KMC counterpart team as well as timely suggestions from the World Bank experts. A City Diagnostic Report CDR (separate volume) has also been prepared with a view to provide background information on KMC's existing situation to the readers and development agencies so that they may deploy their resources to problem areas through crystallization of project assistance in future. The CDR is the basis on which the City Development Strategy has been formulated for KMC.

The ten strategic elements presented in CDS, cover sectors related to Urban Planning, Urban Economics, Institutional Development, Urban Transport, Housing and Squatter Settlements, Municipal Services (Infrastructure), Heritage Conservation, Community Development, Environment and Municipal Finance. In order to ensure quality information in the CDS, the strategies prepared were extensively studied and reviewed by a team of experts on each subject. Following the review, a series of focused group meetings were held to discuss the reviewers' comments and to examine the critical cross-sectoral issues.

The strategies (both sectoral and integrated) presented are the final outcome of intensive exercise by the consultants and the KMC counterpart team, together with a series of field meetings at the community level, specially in the case of squatter settlements. A number of findings of the CDS are also based on review of existing literature, for which due acknowledgements have been given by the authors.

This CDS report provides factual and expert assessment of the sectors for KMC and also in the valley context. This compilation of strategies in the form of one single publication on KMC is the first attempt of this kind and should make a valuable resource for development agencies and professionals involved in KMC and Kathmandu Valley development activities.

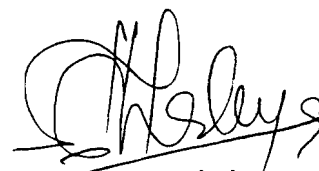
It is important to note here that this document has been prepared within seven months and hence, the authors have stayed within the parameters of existing literature and discussions with selected professionals and stakeholders. It is expected that the document will be periodically updated by KMC so that additional issues are covered as new developments unfold in future.



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This Document has been produced under the overall supervision and guidance of **Mr. Keshav Sthapit**, Hon. Mayor and **Mr. Bidur Mainali**, Hon. Dep. Mayor of KMC.

LIST OF ABBREVIATIONS

ADB	Asian Development Bank
AMP	Ancient Monument Protection Act. 1957 & Revision
CAS	Corporate Accounting System
CDS	City Development Strategy
CDR	City Diagnostic Report
CD	Community Development
CPC	City Planning Commission
CEO	Chief Executive Officer
CBO	Community Based Organization
CDO	Chief District Officer
CAP	City Assistance Program
CAS	Corporate Accounting System
DDC	District Development Committee
DANIDA	Danish International Development Agency
DHBPP	Department of Housing, Building and Physical Planning
DOR	Dept. of Roads
DOTM	Dept. of Transport Management
DUDBC	Dept. of Urban Development and Building Construction
DOA	Dept. of Archaeology
DWSS	Dept. of Water Supply and Sanitation
EU	European Union
EEC	European Economic Commission
FAR	Floor Area Ratio
FNCCI	Federation of Nepal Chamber of Commerce and Industries
HAN	Hotel Association of Nepal
HMG	His Majesty's Government
INGO	International Non-Government Organization
IPT	Integrated Property Tax
JICA	Japan International Cooperation Agency
KVPI	Kathmandu Valley Protective Inventory
KVURD	Kathmandu Valley Urban Road Development
KVUDPP	Kathmandu Valley Urban Development Plans and Programs
KVTDC	Kathmandu Valley Town Development Committee
KMC	Kathmandu Metropolitan City
KVMP	Kathmandu Valley Mapping Programme
KVWHS	Kathmandu Valley World Heritage Sites
KV	Kathmandu Valley
kV	Kilo Volts
KVPT	Kathmandu Valley Preservation Trust
LIG	Low Income Group
LSGA	Local Self Governance Act.
MI	Ministry of Industry
MIIP	Municipal Infrastructure Improvement Project
MPP&W	Ministry of Physical Planning and Works
MWR	Ministry of Water Resources
MLD	Ministry of Local Development
MOPE	Ministry of Population and Environment
M&E	Monitoring and Evaluation
NTB	Nepal Tourism Board
NHS	Nepal Heritage Society
NEFEJ	Nepal Forum for Environmental Journalists
NTV	Nepal Television
NGO	Non-Government Organization
NESS	Nepal Environmental and Scientific Services
NHDFC	National Housing Development Finance Company
NUSS	Nepal Urban Sector Study
NWSC	Nepal Water Supply Corporation
NEA	Nepal Electricity Authority
PWD	Public Works Department

PSP	Private Sector Participation
RUPP	Rural Urban Partnership Program
SWM & RMC	Solid Waste Management and Resource Mobilization Center
SCHEMS	School of Environment Management and Sustainable Development
TUGI	The Urban Governance Initiative
TDF	Town Development Fund
TU	Tribhuban University
TP	Traffic Police
TDR	Transfer of Development Rights
UDD	Urban Development Department

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In conformity with its objective of functioning as a local Government, KMC sought the assistance of the World Bank for the preparation of a City Development Strategy (CDS) for Kathmandu. The various sectoral as well as integrated strategies presented in this document seem to be an overwhelming demand on KMC with its limited manpower and money. However, a city development strategy is essential if KMC is to focus its development potential. **The optimism lies in political leadership, enabling environment and necessary support that will be rendered to KMC from civil society.**

The vision for Kathmandu stresses the need to develop the valley as administrative, cultural and tourism center. **The strategies to move towards that vision through improvement in the overall situation of the Kathmandu Metropolitan City, however, is likely to be a long drawn struggle, yet achievable.** It has a greater chance of success when an integrated approach with matching sectoral strength is adopted along with making the necessary changes in the enabling mechanism. The most important step in this direction is to effectively and practically decentralize finances and powers to the KMC. This step by itself is not likely to produce the desired effects in the absence of an equally capable and appropriate enabling environment. The central government needs to play an effective role in the process. However, it is the civil society and the elected members and their increased and dedicated participation in decision-making that holds the greatest promise in increasing accountability. **CDS and the recommended programs that are likely to follow in future need to be specifically aimed at achieving results. The issue of CDS implementation needs to be specifically planned for, rather than hoping for the system to take care of it.**

The **urban planning study** strongly recommends that **Kathmandu should be accorded special status as**

a capital city and large polluting and manufacturing industries should be discouraged immediately and if possible, re-location plans be drawn for existing industries in the near future. Alternatively, service and light industries should be promoted to replace the economic opportunities. Cognizant of the developments occurring in the rest of the world, the Development Plan 2020, prepared by the Ministry of Physical Planning and Works, has proposed diversification of information technology in Kathmandu. Considering the importance of Kathmandu as a cultural and political center as well as physical limitations and the environmental consequences of uncontrolled urbanization of the valley, it is imperative to **regulate the future growth of the city** and the unplanned expansions occurring beyond its immediate borders. **Since the statutory plan dating back to 1976 has proven ineffective in ensuring its planned development, it is necessary to revise the land use plan and regulations for KMC within the broad framework of the Development Plan 2020.**

The vision proposed earlier by the various plans continue to be relevant. **Recently, KMC has envisioned to promote Kathmandu as a regional sports and convention center as well.** Given the emergence of Kathmandu as an important city in the South Asia region, the vision to host larger regional activities appears rational and achievable. The economic advantage for Kathmandu lies in being an important capital city in the center of South Asian countries. The SAARC Secretariat is in Kathmandu, and it also symbolizes the acceptance of Kathmandu as an advantageous location for undertaking regional activities. Of recent, **Kathmandu has shown its potentiality for hosting international level sports activities with the successful conclusion of the 8th SAF Games and the first ever international cricket event in the country.** The tourism growth in the valley has increased accommodation facilities

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considerably. So, sports facilities for professional games could be an attractive proposal for Kathmandu. Weather, political acceptability, security, accommodation facilities are some requirements with which Kathmandu is already endowed.

As far as **institutional development** is concerned, the Metropolitan government works primarily through the limited bureaucratic machinery, which has rigid structures and little flexibility to work towards its stated objectives as mentioned in the Local Self Governance Act-1999. **The Metropolitan government, which is burdened with providing most goods and services in addition to regulatory and facilitative role, is given the responsibility beyond its existing institutional capacity. The issue of 'Local Self Governance' has so far received only lip service.** Although the first decentralization act was enacted in 1982, there has always been a problem in executing decentralization policies due to various reasons. After the restoration of democracy in 1990, the decentralization policy continued. However, even after various efforts in the past, the implementation of the decentralization policy is marked by inefficient and ineffective institutional capacities of local bodies. **Therefore, it can be conclusively said that the most important dimensions of CDS implementation in the KMC perspective is to strengthen its institutional foundation and capacity respectively to improve its performance.** KMC needs to have a clear mission and sound legal base, to be part of the right constituency, and also necessary to have good leadership and adequate resources, if its activities are to have relevance and effectiveness.

The CDS analysis on **transportation sector** shows that **there is a scope for private sector involvement in road infrastructure** investment and management using the BOT and other processes. However, it must be stressed here that **BOT process is not an easy route** for the government to take and it will place heavy demands on the bureaucracy. Such a program

should therefore start modestly with one or two small schemes. These can then be used to test the market and build up the necessary capacity in government and the private sector for implementing the process. There is a wide range of legislative, regulatory, fiscal and similar support that the government will be required to provide for the BOT process. A high level review of the present legal and constitutional requirements that may affect the process should therefore be undertaken. New statutes will have to be passed and these need to be identified, the legal processes instituted, and the standing rules and regulations within government amended accordingly. An equally important aspect is also to **explore the possibility of local banks' participation in the transport sector.** The Government should encourage private banks and institutions to participate in the funding process. In the present context, **international-financing institutions are funding approximately 60 to 70 percent of the total cost of the development works.** If arrangements could be made for co-financing from local banks through lending process, major cost sharing will be available and hence, will help to a certain degree in financing the transport sector.

Urban areas in KMC are not designated by a functional and occupational structure or contiguity criteria for managing **housing and squatter settlements.** Housing problems are a serious challenge in a situation where **a historically planned city is fast transforming itself into a trade-cum-service center.** On the other hand, it is encouraging to note that **despite the absence of city specific policies and programs for housing, slums and squatters, the communities are highly organized and are gradually improving their conditions at their own costs,** which shows their potential for mobilization in participatory home improvement programs. Increasing pro-poor and supportive interventions of NGOs, CBOs and donor agencies also open avenues for the improvement of slums and squatter settlements in the city. There are also equal

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opportunities for existing finance companies and co-operatives to invest in housing development programs in a conducive environment, for which KMC could play a facilitating role.

Most of the **Municipal Services (Infrastructure)** in KMC are interdependent and interlinked. After a careful reevaluation of public sector participation and management of the infrastructural sector, it has become clear that **the key to successful infrastructural service delivery lies on co-ordination and integration of activities**. The key to successful management also lies in efficient mobilization of social, financial and organizational resources. **It must be noted here that the sectoral government agencies such as roads, water supply, power supply etc. will need to change their approaches drastically to improve the situation**. The municipality itself will need to develop an effective and efficient operational procedure and adopt policies, which will address the urban problem. The legal framework should spell out an appropriate fiscal mechanism. The municipality must be **consistent not only in its approach to set goals on blue print, but also on delivering basic services to the public**. Evaluation of achievements should be undertaken frequently to see what has been achieved and also to determine how to overcome the emerging problems. The Stakeholders' active involvement is the key to promote and sustain development programs in Kathmandu Metropolitan City.

KMC's involvement in **heritage conservation** has only recently started and still follows the 'monument approach'. It is only beginning to discuss **potential use of this resource for direct economic gains** at institutional level. Being an extant resource subjected to transformation and/or loss through actions from outside rather than from within, and forming a complex ambient background to the city rather as a developmental entity in a general sense, **incorporation of conservation in development strategies demands 'filtered actions' more from other sectors** and indirect policy interventions from

these 'external sectors' than simple conservation of elements of physical heritage. Such strategic application of policies and approaches, which have been conspicuously absent currently, will have to be central in the heritage context of the CDS for KMC.

As **community development** aspects encompass each and every segment of the human endeavor, they should be closely linked with all development process. However, in many of the development sectors, the direct involvement of the community people is not necessary, but they need to have certain level of concerns in all matters. **Communication being one of the strong tools to bring about human behavioral changes, KMC should try to build a consensus on such concerns with its mass populace**. By upgrading its Communication and Information Department, KMC could disseminate its messages to the mass and specific communities alike. Many of the CD works at local level could be initiated by reviving the existing Guthis, local and traditional institutions and user groups. Similarly, the local NGOs and INGOs (including youth clubs and private associations) could be good assets to initiate various CD works within the municipality area. **Sense of ownership is the prime component in participatory development process to sustain the CD program**. Therefore, involvement of the concerned stakeholders should be guaranteed at each and every event.

The shape and character of the KMC's future **environmental problems** will be different from the past experiences. During the early years till the 1970s, the process of urbanization and industrialization was in its infancy, the magnitude of the problems were well within control, and the concerned Ministries and Departments including the KMC, were able to keep pace with the changing trends. **The development activities in the later decades have caused considerable and consistent escalation of environment-related problems, for which technological solutions and action plans must be sought at the earliest lest Kathmandu and the**

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KMC will be compelled to bear the brunt of the most irredeemable national crisis. The need for a gargantuan transport system to cater to the thousands of commuters everyday, serves as a good example in this context. All such essential services are no longer of local purport and substantially draw upon the nation's resources. The pattern of living of Kathmandu's residents have led to air-noise pollution, traffic congestion and dearth of space. What is more important, the conflicts arising between the national and emerging human environment and the rapid changes in the basic urban system have disrupted the ecological and social balance. Hence, degradation of the environment, especially air, water and land, through indiscriminate discharge and mismanagement of solid waste must not be cost-free as it currently is in the valley. The high incidence of polluted air and water in KMC indicate the need for setting environmental quality standards. KMC authorities need to address these by demanding mandatory standards from concerned agencies.

Urbanization in KMC demands rapid expansion of services and infrastructure facilities and puts considerable strain on **municipal finance**. These demands have mostly been tackled by central government interventions. However, financial problems at national level have led to shortfalls in financing of KMC's infrastructure development. The major source of revenue for KMC was trade tax (including octroi). **After abolition of octroi, KMC has suffered significantly in terms of financial resource generation.** The very low own-source revenue of KMC and the sharp decline in per capita own-source revenue clearly indicate that **KMC has not realized fully its revenue potential. Further,**

the economic base of KMC is so weak that extraction of more revenue would require radical changes in the structure of KMC's property taxes.

Finally, continued decentralization and increased delegation of authority to KMC (**as a special metropolitan city**) are essential to make KMC more accountable and induce it to expand its response base. A set of goals, in accordance with priority, has been identified for KMC after intensive analysis of the goals achievement matrix by the CDS team. The practical approach to CDS implementation will be to work towards these following goals:

1. Improvement of KMC's financial status and managerial capacity to **ensure good urban management;**
2. Planned and **integrated development** of land, infrastructure, housing and transport;
3. Improve and conserve/preserve the natural and manmade environment to **keep the city clean, green and healthy;**
4. **Conserve/preserve the physical and cultural heritage of the city;**
5. **Promote private sector involvement** in city development works;
6. **Improve co-ordination** among agencies involved in development activities in the city;
7. **Increase public awareness** and involve them in city development process;
8. Ensure **adequate supply of affordable housing;**
9. Promote **appropriate economic policies and activities** to reduce poverty and unemployment in the city;
10. **Develop clear policy** on urban squatter settlements.



Background

1.1 INTRODUCTION

The Kathmandu Metropolitan City had requested the World Bank for technical assistance for the preparation of a city development strategy. Accordingly, a team of ten individual consultants was recruited for the period July 2000 - January 2001 to assist KMC in this task. The heads of departments of KMC served as counterpart members and worked closely with the team during the preparation of the CDS.

The first stakeholders' workshop was held on 25th August 2000. The strategies were broadly identified during this meeting and the vision statement was also drafted. Following the first stakeholders' meeting a diagnostic report was prepared on each of the ten sectors, namely urban planning, urban economics, institutional development, urban transport, housing and squatter settlements, municipal services, heritage conservation, community development, environment and municipal finance, entitled 'City Diagnostic Report for Kathmandu'. The findings of the diagnostic reports on each of the above ten sectors were also used to supplement the output from the workshop to prepare a draft CDS, which was published for comments on 7th January 2001. Prior to the finalization of the draft CDS, the strategies were intensively discussed during separate focused group meetings with the concerned experts, held on 14-15 December 2000. The findings of the draft CDS were then presented for further discussions during the final and second stakeholders' meeting held on 17th January 2001. A video conference was also organized to get necessary inputs from the World Bank on 29th January 2001. The final CDS report has been prepared after incorporation of all the changes and suggestions proposed during the second stakeholders' meeting including the video conference with the World Bank.

1.2 THE VISION

Previous studies as well as the 9th Plan have envisaged **developing Kathmandu into an administrative,**

cultural and tourism center. There seems to be an implicit agreement among stakeholders to retain this vision. **In addition to this, it has also been proposed to establish Kathmandu as a regional sports and convention center.**

During the stakeholders' workshops (1st and 2nd) some specific vision statements were suggested for the city, which are as follows:

- ❑ Cleanest and healthiest city in Nepal
- ❑ Financially strong, managerially efficient and capable metropolitan city to provide quality, effective, efficient and sustainable urban services and facilities to its citizens.
- ❑ Clear strategy, well planned city and housing for all
- ❑ Well managed infrastructure and safe transportation

The CDS for Kathmandu has attempted to resolve current issues identified by the stakeholders through commonly agreed strategies that ultimately lead towards the attainment of the vision for the city.

1.3 GOALS

Based on the vision for the city and a thorough analysis of the sectoral goals achievement matrix, the following order of priority for different goals has been identified:

- ❑ Improvement of KMC's financial status and managerial capacity to ensure good urban management (*An important and vital prerequisite for CDS implementation*);
- ❑ Planned and integrated development of land, infrastructure, housing and transportation;
- ❑ Improve and conserve/preserve the natural and man-made environment to keep the city clean, green and healthy;
- ❑ Conserve/preserve the physical and cultural heritage of the city;
- ❑ Promote private sector involvement in city development works;

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- ❑ Improve coordination among agencies involved in development activities in the city;
- ❑ Increase public awareness and involve them in the city development process;
- ❑ Ensure adequate supply of affordable housing;
- ❑ Promote appropriate economic policies and activities to reduce poverty and unemployment in the city and
- ❑ Develop a clear policy on urban squatter settlements.

1.4 PLAN IMPLEMENTATION

Implementation of the various programs recommended in CDS will be a major challenge for KMC. The CDS, if implemented in stages in accordance with prioritized goals, can have a marked impact on achieving KMC's overall vision. **However, it must be emphasized here that plan implementation is entirely different from plan formulation.** In order to show commitment to CDS implementation, KMC must initiate a process of finalizing projects, with its city council members, the elected board members, and stakeholders. The major challenge ahead for successful CDS implementation will be to mobilize resources and coordinate the activities.

1.5 MAJOR ISSUES AND OPTIONS FOR CDS IMPLEMENTATION:

Two major issues for CDS implementation in the future are (i) the need to allocate scarce resources efficiently and promote private sector participation which will generate additional income, resources, and employment, and (ii) the need to set high institutional and manpower standards, supported by rules and regulations, legislation, and economic incentives to follow a regionally compatible (South and South East Asia) path in future. **The smallness of KMC's size in terms of big South Asian cities does not diminish its importance both nationally and regionally.** Policies must begin to address those issues that have elements of tremendous opportunities in KMC.

Growth and employment will continue to be crucial to KMC's development. Proper policies and a fully qualified team of professionals in KMC are needed to assure KMC's growth, expansion of economic activities, efficient use of resources etc. Public sector participation and management of the infrastructural sector should be reevaluated, especially in the light of the continually poor

performance of most of the sectoral government agencies such as roads, water supply, power supply etc.

Donor assistance in KMC must be seen in terms of its ability to expand the infrastructure, improve the quality of environment and promotion of tourism base. The opportunities to exchange ideas with advanced municipalities should be seriously taken up by KMC. Policy should, therefore, be oriented towards promoting non-traditional support through execution of visible projects. A complimentary policy of efficiency in donor-funded projects is also important for expanding external support.

Continued decentralization and increased delegation of authority to KMC (as a special municipality) are essential to make KMC more accountable and induce it to expand its response base. Some of the factors needed to implement CDS are outlined below.

1. Central Government support to enhance the organizational, administrative, and technical capabilities of KMC.
2. Capable and trained managerial and technical personnel should be provided, as well as mechanisms to retain such personnel in KMC.
3. KMC needs clear functional responsibilities and proper co-ordination mechanism regarding CDS.
4. Authority for the imposition of various taxes should be delegated to KMC.
5. Gradually devolve responsibility for infrastructure and services (specially power supply, water supply, roads, solid waste management etc.) to KMC.
6. Provide KMC with legal authority to impose user-service charges on a cost-recovery basis, tied to the quality of service provided.
7. KMC should be encouraged to take maximum advantage of the development of valley real estate in the mobilization of valley resources.
8. KMC should be authorized to identify and promote "desirable" industries in the valley in close co-operation with other municipalities.
9. Remove impediments to private sector initiatives by rationalizing administrative and legal procedures.
10. Support private sector initiatives in city greening and environment protection projects.
11. Provide liberal loans to KMC from financial institutions.

The measures outlined in the CDS report are both sectoral as well as integrated into packages for implementation. The sectoral approach has been adopted to make KMC departments and sectoral agencies of the

central government to be able to act swiftly wherever possible. The integrated packages will assist KMC in identifying projects that can have a synergy in other areas also. A large part of the recommendations are non-investment activities and are more geared towards management capabilities and re-orientation of approaches and current investments. **Much greater emphasis is needed on giving due importance to integrated approach and yet maintain the overall positive impact of sectoral activities on KMC.**

The transition towards a (i) liveable, (ii) competitive, (iii) well-governed and managed and (iv) bankable Kathmandu is a distant but achievable vision. Some may even see CDS as an unnecessary academic exercise. However, it makes good sense to begin taking the first step in the form of KCDS, since KMC can and will benefit from this exercise. Indeed, CDS for KMC must be predicated on the prognosis of KMC's and central government's efforts including donor community's support that are likely to influence the implementation of CDS.

1.6 PLAN ELEMENTS

The CDS has been divided into ten individual but interrelated urban sector elements and a separate chapter on integrated approach. This format is not only simple and enables each element to be dealt with in a more focused manner, it also allows KMC or other donor agencies to select the sector of their priority or choice. It is also to be noted that to accommodate the desire to tackle issues in an integrated and holistic manner, this report has included an integrated approach as well and additional packaged and integrated strategies are also included. Thus, it was considered prudent to take the sectoral as well as integrated approach in the preparation of the CDS. Past experience has also shown that sectoral and integrated strategies, which try to embrace multiple elements, tend to be more doable and thereby are more likely to be implemented.

The sectoral elements of the CDS are:

- a) Urban Planning
- b) Urban Economics
- c) Institutions
- d) Urban Transport
- e) Housing and Squatter Settlements
- f) Municipal Services
- g) Heritage
- h) Community Development

- i) Environment
- j) Municipal Finance

1.7 THE KMC IN PERSPECTIVE

1.7.1 Location

Kathmandu Metropolitan City (KMC), the capital and the largest city of Nepal, is situated in Kathmandu Valley, which is located between the latitudes 27°32'13" and 27°49'10" north and longitudes 85°11'31" and 85°31'38" east. The Valley lies at a mean elevation of about 1350m. above sea level and comprises the three districts of Kathmandu, Lalitpur and Bhaktapur covering an area of about 667 sq. km. The Valley is bowl shaped with rivers flowing towards the center and merging with Bagmati River, which drains out through the Chobhar Gorge, located to the southwest.

There are five municipalities and over a dozen traditional agricultural settlements along with 99 village development committees within the valley (see fig. 1). The municipalities of Lalitpur and Kirtipur abut KMC in the south and southwest respectively, forming a unified metropolitan area. The municipalities of Madhyapur Thimi and Bhaktapur lie a few kilometers to the east of KMC. The municipal area of KMC encompasses about 50.8 sq. km. and comprises 35 wards of which 12 wards cover the historic city core (see fig. 2).

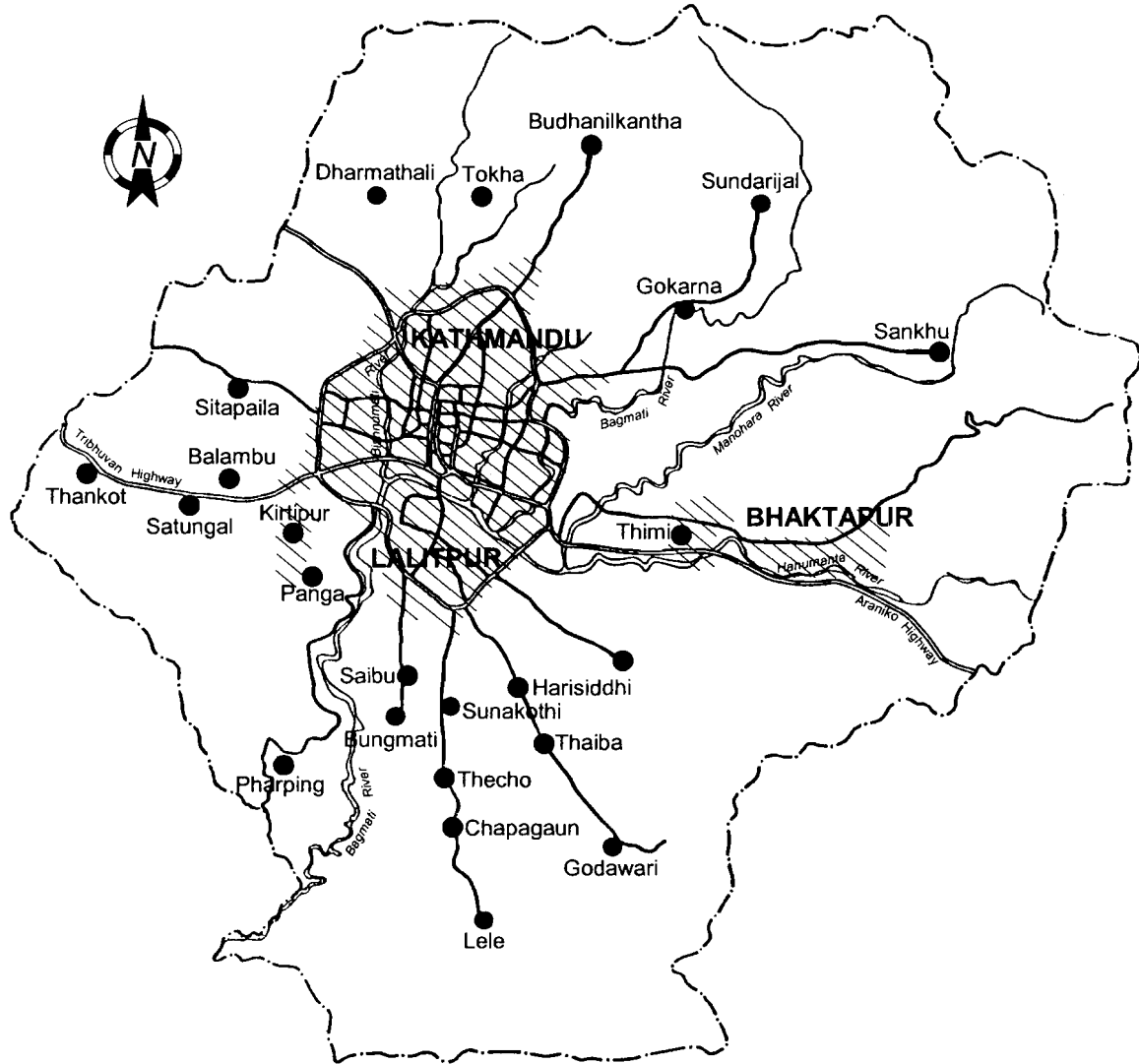
Table 1: The Kathmandu Metropolitan City at a Glance:

Administrative Area (kms):	50.8
Total city population (1991)	421258
Density (person/ha) (1991)	84
Infant mortality (per 1,000 population)	66.78
Average Income US\$	430
Hospital Beds per 1,000	4.93
Dust/Suspended Particles (ug/m3)	375
Water/Sewerage coverage	60
Electricity service coverage	100
Telephone service coverage	80

KMC is connected to the Mahendra Highway, which is the main trunk route traversing the country, through the Tribhuvan Highway and Prithvi Highway. The Arniko Highway connects it to the China border in the northeast. KMC has the only international airport of the country and is also connected by air to many towns and district headquarters of the country.

Fig. 1

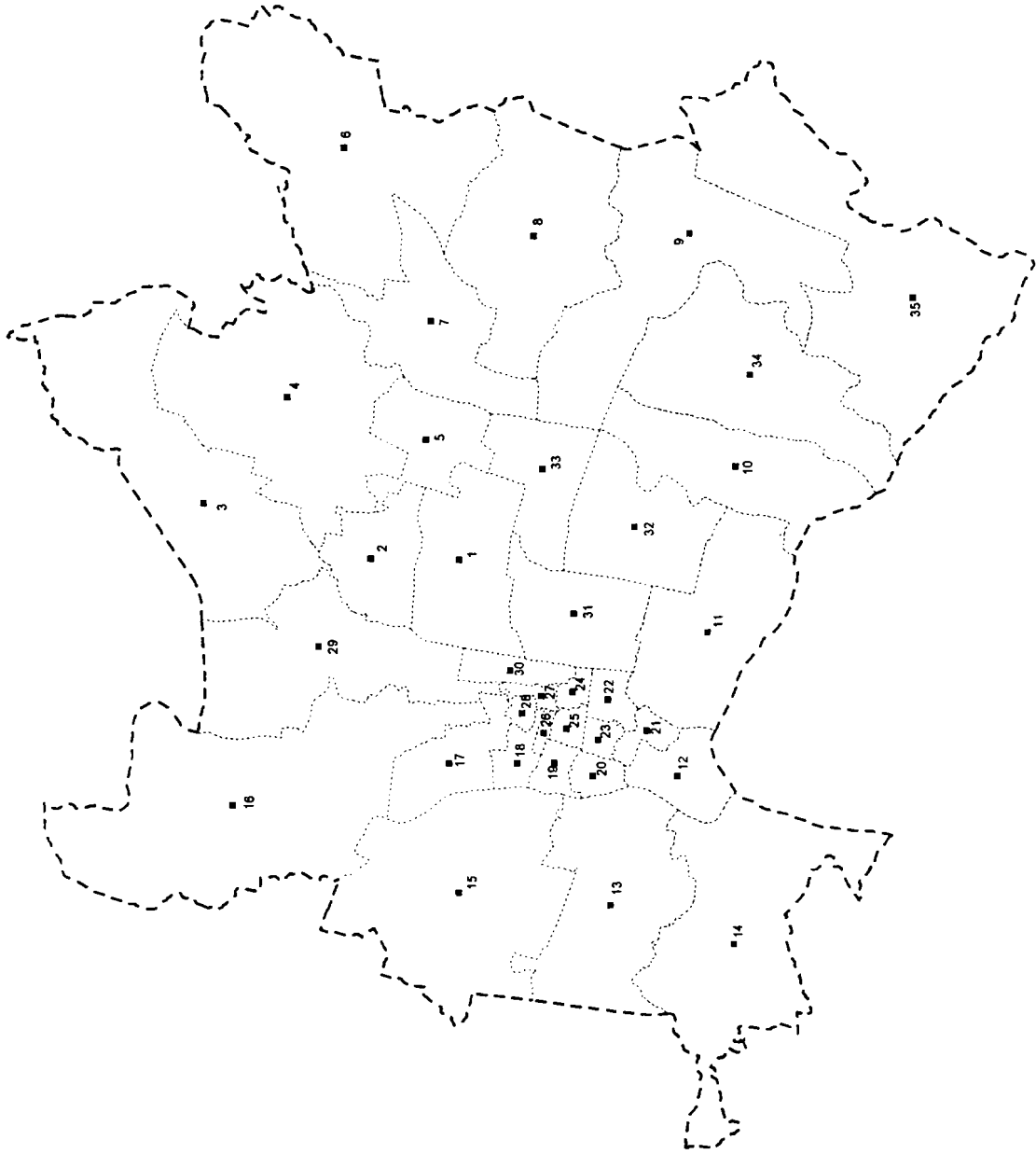
SETTLEMENTS IN KATHMANDU VALLEY



0 2 4 6 8km
Scale

Kathmandu City Development Strategy
Source: C. B. Shrestha and M. S. Manandhar, 1994

Fig. 2



**KATHMANDU
METROPOLITAN CITY
Map of Ward Boundary**

**KATHMANDU CITY
DEVELOPMENT STRATEGY**

Source: Kathmandu Metropolitan City, Information & Communication Department, GIS Section

1.7.2 History

The history of Kathmandu town is as old as the urbanization of the valley itself that started about a little over two thousand years ago in the proto-historic Kirata period. Several Kirata settlements such as Yambi (now Indrachowk), Jama (Jamal) and Lanjagala (Lagan) were located on the crossings of trade route, that passed through the core area of Kathmandu city, survived today by the Bhimsenthan-Kamalachhi route. About 2nd Century, in-between this route and the banks of river Bishnumati, the Lichchavis settled Daxina-Koligrama. To its east, another Kirata settlement of Andipringga had been expanded into the capital city in 1st Century ca. Also, further to the east, the religious town of Deopatan was settled. Chronicles and legends refer to this conglomeration, now KMC, variously as Manjupattan, Bishalnagar, etc. Manadeva, the famed Lichchhavi king of 5th century, had a stone water conduit built at Kel-tole area to service the wayfarers along the main highway. By the 7th century its trading links had extended to India and Tibet and an extensive urban culture had developed by the end of the Lichchhavi period, ca. 9th century. Gunakamadeva, a 10th Century ruler, is said to have restructured the city and named it Kantipura, presumably in the shape of a sword, Khadga, with thirty three gateways and associated temples of Shakti mother-goddesses. Popular memory has it that he constructed a palace, Gunapo pa, in Hanumandhoka area, giving Kathmandu a capital role briefly in 11th century. By 1143, the temple of Kashthamandapa was already a landmark giving its name to the city. Despite the shift of capital to Bhaktapur, the commercial role of the twin cities, popularly called Yambu and Yangala then, increased steadily. With the split of the valley into 'brotherly Malla city states', in 1482, Kathmandu became the capital, albeit of the city-state.

The Malla capital city, with a physical and Hindu ritual nucleus at Hanumandhoka Palace and around it, grew with remarkable urban civic life and social structure with fundamental increase in commercial activities and momentous development of art and architecture followed. Great builder kings were to leave their works as landmark heritage in the city exemplified by Hanumandhoka palace and the temples in the square around it.

With the unification of Nepal by the Shahs, in 1768, the town of Kathmandu became the capital of the nation. The building of the towering Nautale pavilion of the Hanumandhoka palace physically marks this eventful conclusion of history and the beginning of modern times.

1.7.3 Population

The national population of Nepal was 18.5 million in 1991 and is currently estimated to be about 22.9 million.

Table 2: Population of Kathmandu Valley Municipalities

	1981	1991	2001	2011
Kathmandu	235,160	421,258	729,690	1,011,105
Lalitpur	79,875	115,865	163,923	229,852
Bhaktapur	48,472	61,405	74,707	105,561
Kirtipur			37,877	46,477
Madhyapur Thimi			39,988	49,767
Total	363,507	598,528	1,046,185	1,442,762
% share of Kathmandu	64.7%	70.4%	69.7%	70.1%

Source: Population census 1981, 1991; Development Plan 2020 for the Kathmandu Valley (KVTDC, 2000)

The population of KMC grew from 235,160 in 1981 to 421,258 in 1991 registering an annual growth rate of 6 percent. The population is projected to reach 729,690 in 2001 and 1,011,105 in 2011. KMC's share of the valley's urban population is expected to remain steady at about 70%, whereas its share of the national urban population is expected to decline from 24.1% in 1991 to about 20% in 2001 and 18.2% in 2011.

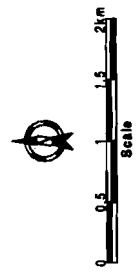
Because of the centralization of administrative, political, tourism, economic and industrial activities in the valley, large-scale in-migration has occurred in the cities of the valley, with KMC absorbing more than 83% of the migrants in 1991. Migrants also accounted for 19.4% of KMC's population in 1991 and 52% of the population growth of the city during the 1981-91 period. Migration has been one of the major factors for the city's rapid expansion as well as acute housing problems. Because of rapid urbanization in the rest of the country, the share of migration in the city's population is, however, expected to gradually decline in the future.

1.7.4 Population Density

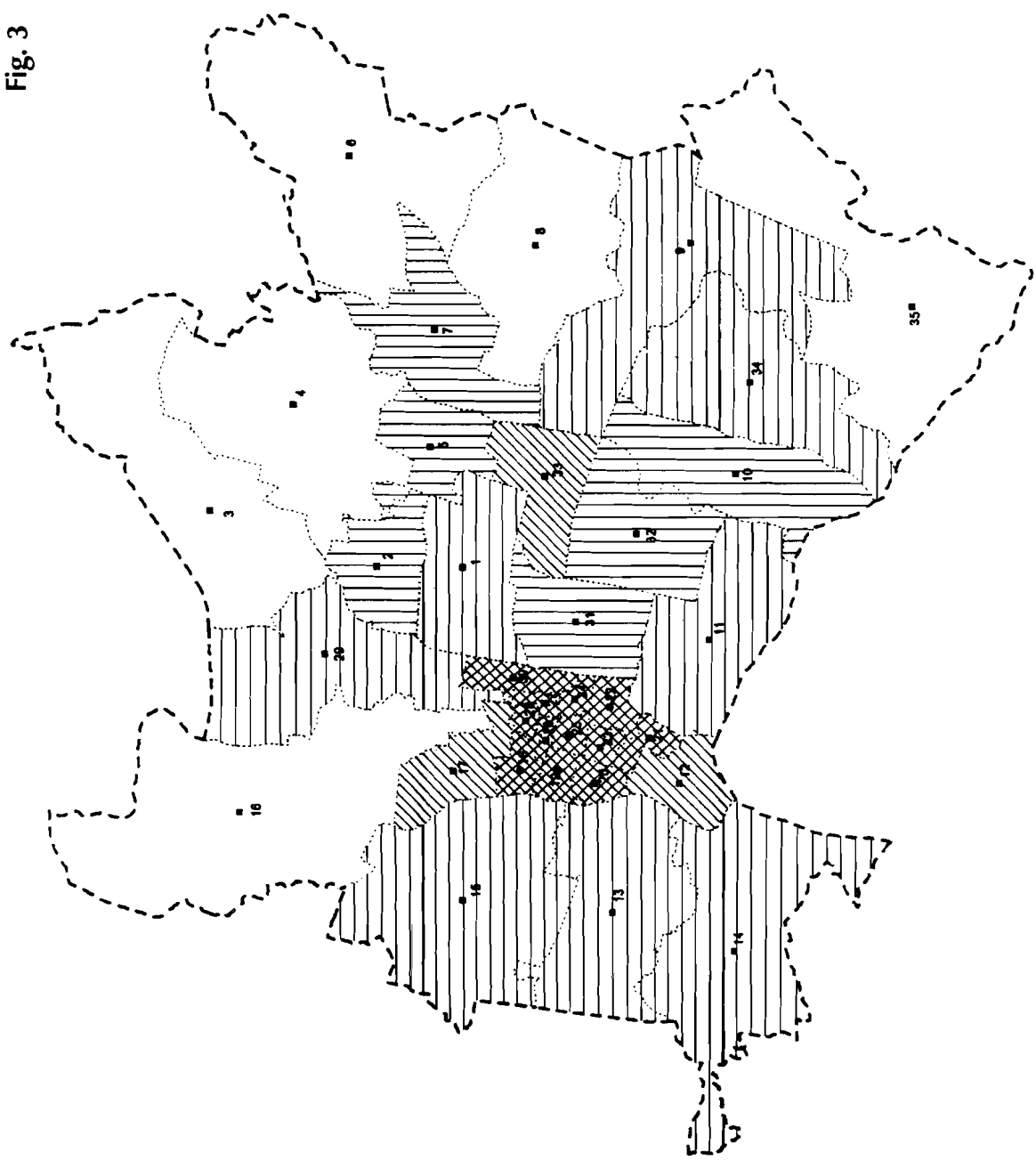
The overall gross population density of Greater Kathmandu, which includes KMC and Lalitpur, was 60-65 ppha in 1987. KMC had a gross population

Fig. 3

WARD-WISE POPULATION DENSITY 1991



- Legend**
- 1-35 Ward Indicator
 - - - KMC Boundary
 - · - · - · Ward Boundary
 - ▨ >400 Population per ha
 - ▧ 150 - 200
 - ▩ 100 - 149
 - 50 - 99
 - <50



KATHMANDU CITY DEVELOPMENT STRATEGY

Source: Kathmandu Metropolitan City
Information & Communication Department
Geographic Information System Section

CITY DEVELOPMENT STRATEGY

density of about 84 ppha in 1991 (see fig. 3) and this was expected to increase to 144 ppha in 2001. The densities were highest in the city core, ranging from 1067 ppha in ward 27 to 419 ppha in ward 22 in 1991. Densities tended to decrease sharply in the outlying wards. The current low densities in the wards outside the city core are a result of inefficient land uses and unplanned growth. **For a city like KMC it would appear desirable to maintain a gross density of not less than 300 ppha.** By increasing densities in the outer wards through appropriate policies and revised regulations and bylaws, much of the city's future population growth could easily be accommodated within the city area.

1.7.5 Urban Planning and Land Use

Continuous efforts had been made in the past few decades to manage the urban expansion process of the city. City development plans were prepared and implemented at different stages. However, because of various shortcomings in the plans and related regulations as well as their weak implementation, the city grew haphazardly as per the demands and preferences of individual landowners and brokers, rather than according to any professionally proposed plan. Today urbanization has spilled over beyond the city limits, which makes it even more difficult to regulate the growth of the city. If left unattended, the urbanization process threatens to engulf the entire valley, with serious consequences for the valley's natural and built environment and severe pressure on the already inadequate infrastructure services.

Urban land use in the Kathmandu Valley grew from 3096 ha in 1984 to 9193 ha in 2000. Agriculture land decreased correspondingly from 40,950 ha in 1984 to 27,570 in 2000(see fig. 4).

Table 3: Kathmandu Metropolitan City Land Use 1995

Land Use	Area in ha.	%
Mixed residential/commercial	3273.6	64.5
Commercial/industrial	82.6	1.6
Institutional	239.2	4.7
Transport (airport/bus terminal)	166.3	3.3
Others (vacant/open land, VIP area, squatter)	1314.3	25.9
Total	5076	100

Source: Cities Data Book, KMC, 2000.

Of the total KMC municipal area of 5076 ha, in 1995, 3273 ha of land were under mixed residential/commercial use. Although vacant/open land/ VIP area etc. covered 1314 ha, apart from pockets of inaccessible or marginal land, the actual easily developable land available is probably much less. **KMC in fact suffers from an acute shortage of open public land. The KVTDC study had identified quite a significant amount of land in the city occupied by the army, police, jail and other non-central government offices which could be relocated to release land essential for critical urban functions.** The city also had some unused and unproductive guthi or trust land within its area which could be acquired to provide essential services for the city.

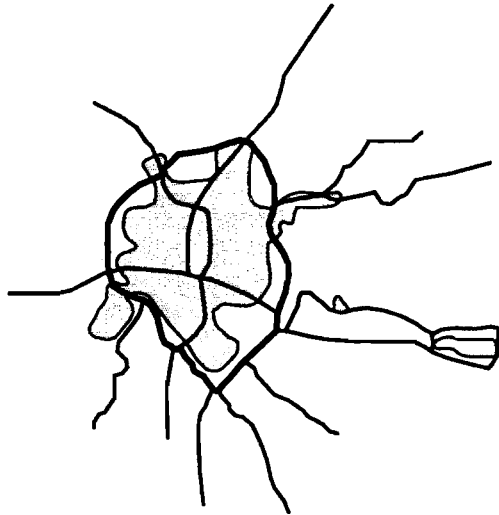
Earlier, industrial establishments were located primarily in designated industrial estates. **As the city grew without any strong regulatory measures, industries were set up all over the city, sometimes resulting in incompatible land uses.** As planning regulations were enforceable only within the municipal boundaries, industries began to be located outside the jurisdictional areas of the city, especially along the highway towards Thankot and in the stretch between KMC and Bhaktapur. The thrust towards the east is expected to accelerate once the highway connecting Kathmandu to Sindhuli and the eastern part of Nepal is completed in a few years time.

1.7.6 Economy

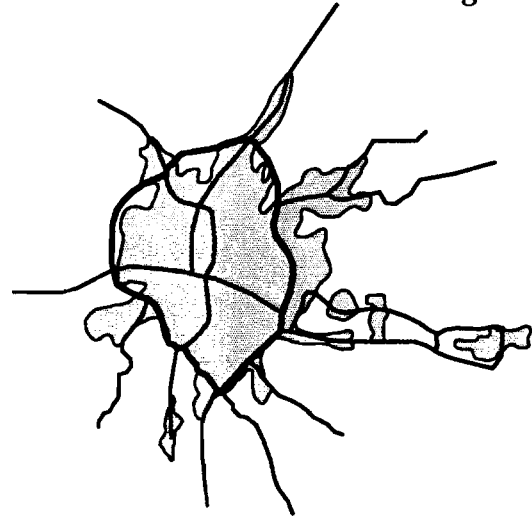
Kathmandu has grown into a metropolitan city. Nepal Living Standard Survey (1996) had estimated its per capita income at more than Rs. 24,000 i.e. US \$ 430 at the rate then prevailing. Only about 3 percent of this income had originated from the agriculture sector. According to Household Budget Survey (1999), only 15 percent of employed people were engaged in agriculture. The challenges and opportunities of Kathmandu have attracted people from different parts of the country and accordingly its population growth rate is estimated at 6 percent per annum. Migration of qualified and better-off people have made it the most competitive city in the country, and has helped in its prosperity. **In stark contrast to the economic scenario, KMC is burdened with the ever-growing problems of population pressure, transportation and traffic management, conservation of its declining heritage, urbanization induced environmental problems of pollution and solid**

URBAN EXPANSION TREND IN KATHMANDU VALLEY

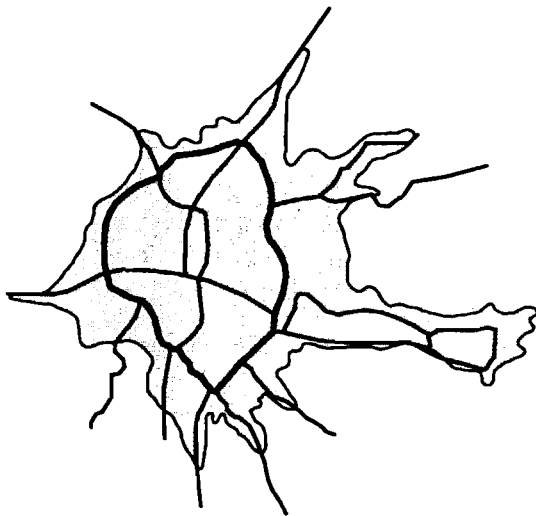
Fig. 4



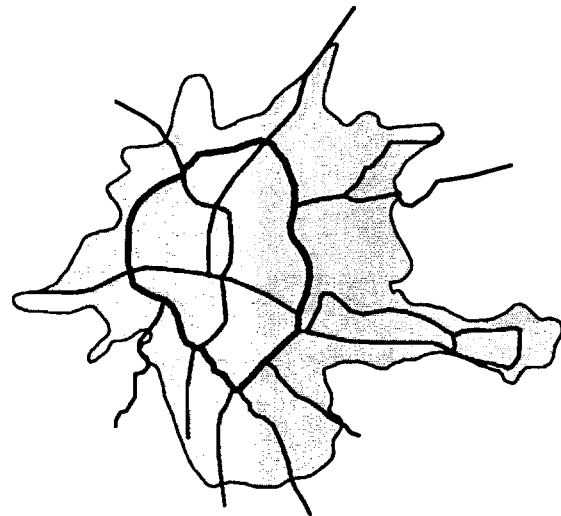
1984



1991



2000*



2015

KATHMANDU CITY
DEVELOPMENT STRATEGY

Source: Kathmandu Valley Urban Road
Development, JICA, 1993

* Kathmandu Valley Development Plan 2020, 2000

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waste management etc. In short, the city cannot be left unattended.

Understandably, its human development indicators are also quite high. Kathmandu district has recorded the highest life expectancy at birth at 67 years, adult literacy rate at more than 70 percent, and human development index at 0.603. Female literacy rate and female participation rate in the labor force is significantly high for Kathmandu.

Newars are the dominant ethnic group of Kathmandu. However, due to migration, its relative position is gradually eroding. Multi-ethnic groups exist now in the city. With the improvements in air and road linkages, the number of mobile people is also increasing. The employment opportunities are diverse both horizontally and vertically. Qualification and labor productivity divide the people vertically while diverse employment opportunities show a horizontal variation as well.

Family structure is getting rapidly fragmented into small unit families. Number of households with both husband and wife working has been on the increase. Apartment housing units for multi-families is coming into existence. Mix of cultures is quite rapid due to diversity in ethnic composition and also due to cable TV channels. Traditional culture and values are losing their prominence. Modern concrete structures have replaced the traditional landscape of Kathmandu. Concerted efforts are now required to preserve the traditional cultural heritages of which Kathmandu is so proud. There is a growing realization even among the youths for the need to preserve and promote cultural practices and cultural heritages, and such realization has resulted into some serious efforts to rehabilitate the cultural practices, and find ways to preserve cultural heritages on a sustainable basis.

1.7.7 Institutional Development

One of the fundamental problems of KMC is its inability to mobilise resources. KMC needs regular source of funds for making administrative and capital expenditure. It is clear that KMC has to be adequately prepared to face problems of environment, community, heritage conservation, land management and housing in the near future. Thus, the main thrust of this study is to ascertain how to make KMC institutionally capable to serve the city dwellers. In this perspective, it is imperative to develop KMC in the

form of a local government rather than just as a local body in the years ahead. However, there are a number of institutional issues which have to be taken into account before KMC can fully function as a local government in the future. These issues are categorized into three headings: **foundation, capacity and performance**. Timely consideration of these issues by KMC and other related agencies could be the basis not only to implement CDS but also to develop KMC as a strong local governing institution.

1.7.8 Urban Transport

The current status of transport sector in Kathmandu Valley is quite alarming in the absence of well-organized system. The city is experiencing various problems in the transport sector. The growth of vehicles and simultaneous lack of improvement of the existing facilities and traffic management have resulted in disorganized movement of traffic thereby increasing congestion, accidents and decrease in vehicle speeds affecting road capacity. At the same time, organizational deficiencies, enforcement of law and order contributed considerably to slackness in proper movement of vehicles and pedestrians. Also due to the financial constraints, desired quality and quantity of road network system (see fig. 5) and introduction of different modes of transport could not be attained.

1.7.9 Housing

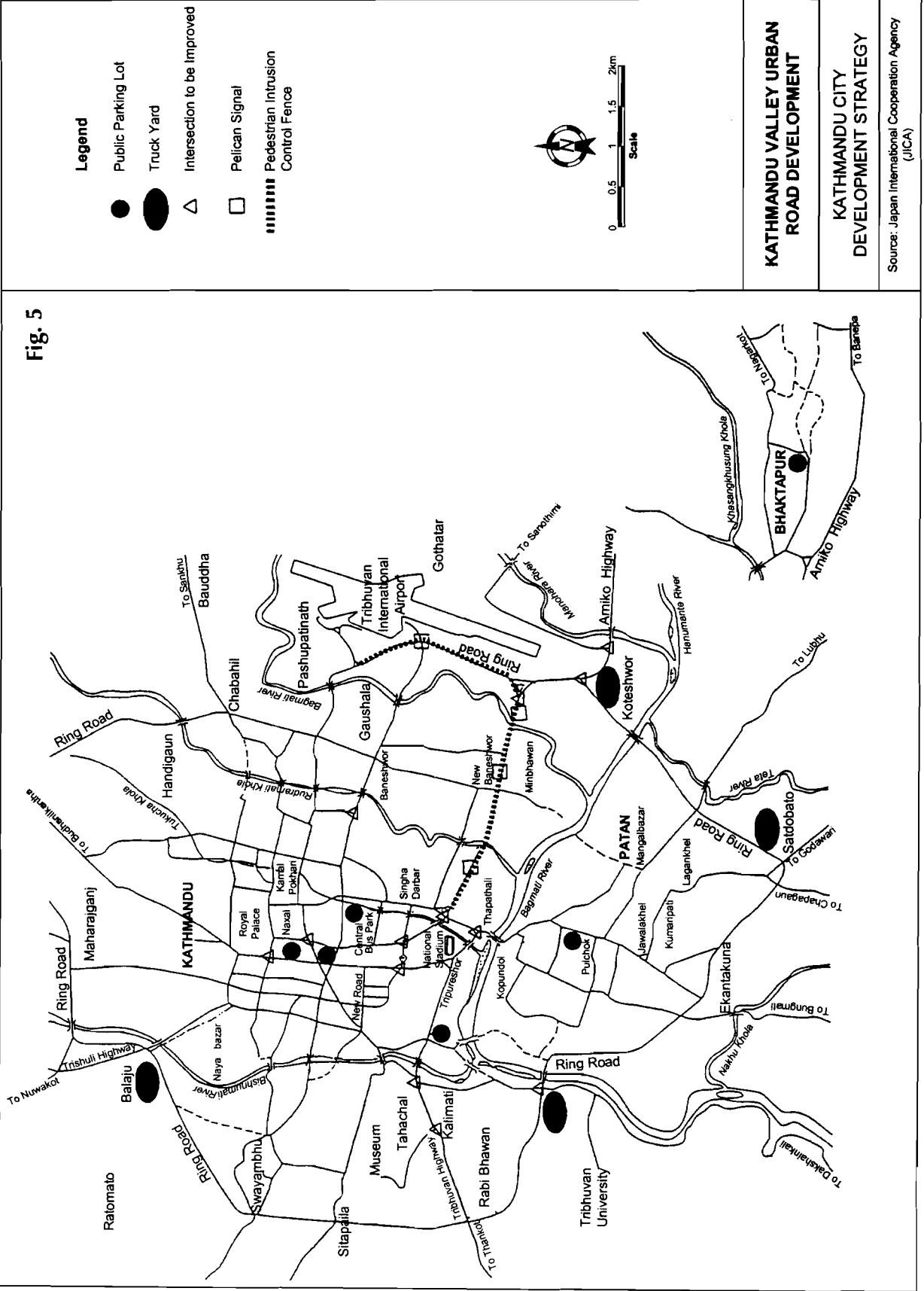
In 1991 the total number of housing units in KMC was estimated to be 53,311 while the deficit was estimated at 10,942 housing units. About 30% percent of the

Table 4: Growth in Squatter Settlements in Kathmandu

Year	No of Settlements	No. of Households	Population	Remarks
1985	17	-	2,134	
1988	24	348	3,665	
1990	19	859	4,295	
1992	33	1,271	6,355	
1996	47	1,783	8,927	
1998	49	2,021	10,323	
2000	61	2,031	11,862	Includes settlements of adjacent VDCs

Sources: Joshi and Bjoness; 1987, Concerned Citizens Group, Kathmandu Squatter Site Survey; 1990, Flatheim and Skjorestad; 1993, Kishore Thapa; 1994, Tamala; 1997, and Lamant; 2000.

Fig. 5



KATHMANDU VALLEY URBAN ROAD DEVELOPMENT

KATHMANDU CITY DEVELOPMENT STRATEGY

Source: Japan International Cooperation Agency (JICA)

CITY DEVELOPMENT STRATEGY

at 10,942 housing units. About 30% percent of the houses were found to be rented. **Observing the trends in the number of houses being constructed annually and accounting for the increase in population, it is estimated that there will be a shortfall of about 33,160 housing units by the year 2001.**

The major contributors to the housing supply in the city are the private owner builders. They also provide the majority of rental units. Government initiative in this regard has been limited primarily to providing housing to government employees. Private sector housing has tended to cater to middle and high-income families. Land developed by the brokers has also tended to be inefficient with poor access and inadequate or no infrastructure services. This is due mainly to the inability of brokers to legally assemble parcels of land, poor financial backing and inadequate knowledge of planning standards.

A substantial market in rental accommodation is known to occur in the slums of Kathmandu, mainly in the inner city areas with poor access. While owner occupied rental units tend to be comparatively better maintained, exclusive rental units tend to be poorly maintained and lack proper sanitation and infrastructure services. Low income rental units are also prone to severe overcrowding with a family of 4.8 occupying a single room with an average size of 120 sq. ft. Renters comprise primarily of migrated labor, petty trade workers and street vendors.

Unauthorized occupancy of land and buildings is a growing phenomenon in KMC, supported at times through political backing. **Squatter settlements have grown in number from 17 in 1985 to 61 in 2000, the majority of them located on marginal public land along the riversides** (see fig.6). The current population of the squatter settlements is estimated at 11,862. An additional 40% of squatters are estimated to be occupying public buildings bringing the total squatter population to about 19,770. The housing condition of the squatter settlements tend to correspond to their age with the newer settlements generally made up of temporary structures and progressing to more permanent structures over the passage of time. The proliferation and continuation of squatter settlements is due mainly to the laissez faire attitude of the government, growing disparity in housing affordability and the failure to formulate specific policies regarding squatter settlements.

1.7.10 Municipal Services:

The present condition of roads and traffic within Kathmandu Metropolitan City is very poor, requiring entire resurfacing of roads along with improvements in traffic management at the road junctions as these contribute to the ineffective use of the available road space. Elsewhere, outside the Ring Road, new access roads need to be developed for longer-term service expansion.

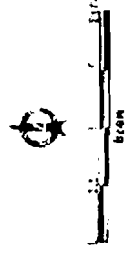
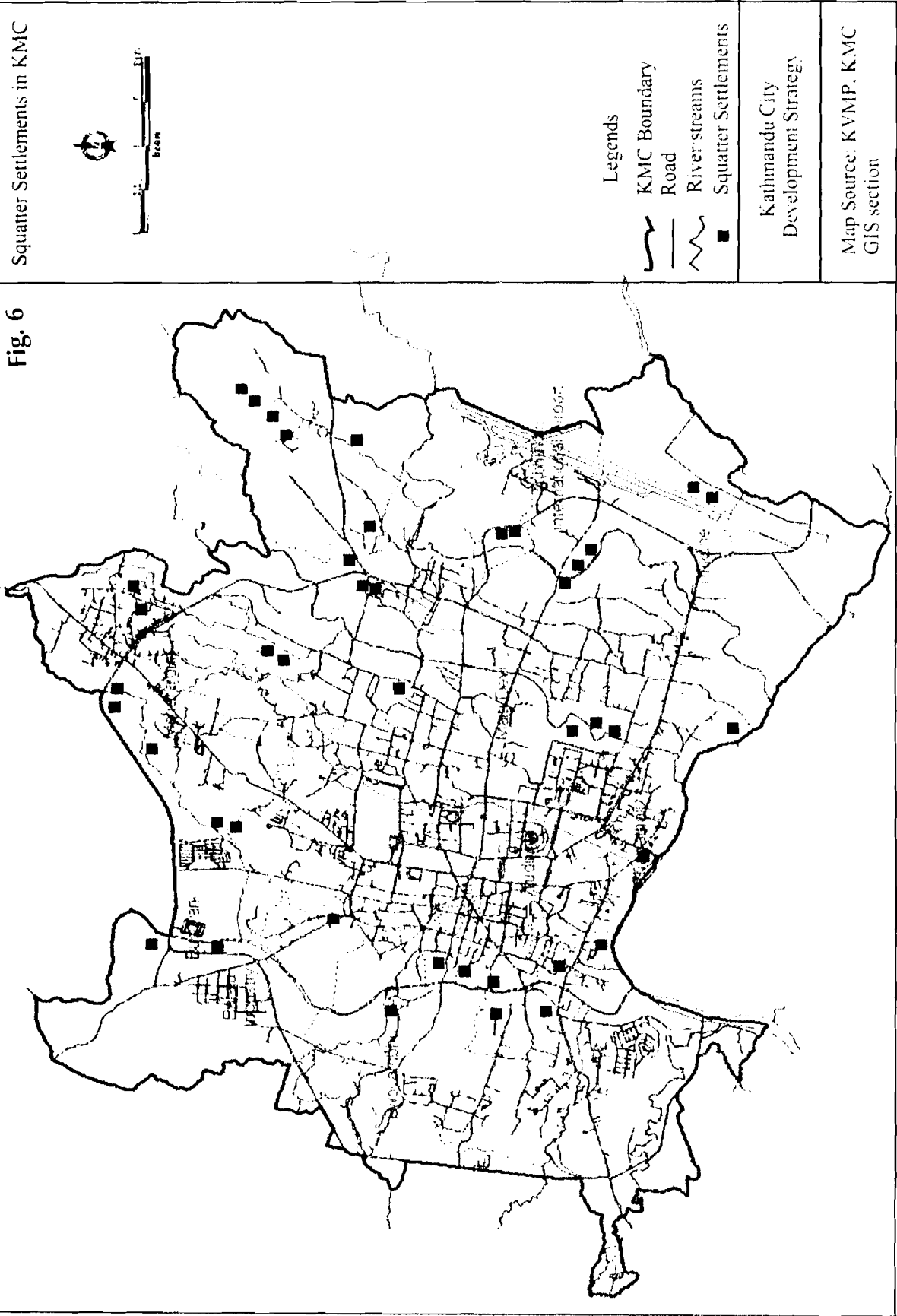
Drinking water distribution pipelines are very old and in need of urgent replacement. (see fig. 7). There is no system for leakage detection and controlling program for bulk metering facilities. The city has many industries, institutional and commercial establishments that consume large volumes of water and need to be relocated outside the valley. Most of the drains are blocked and the Municipality as well as NWSC generally fail to initiate legal action against those who repeatedly create such problems. The chambers and branch connection of sewers are in need of immediate cleaning. Construction and rehabilitation works need to be undertaken with the involvement of the local communities.

Waste is often not deposited in containers due to lack of motivation and support from local communities. Route optimization technique has not been applied by the municipality to avoid overlapping of services for collection of waste. Similarly, **the concept of source separation and recycling of waste has yet to be applied.** KMC has been unable to involve the stakeholders in contributing towards the capital cost and electricity charges of street lighting. NEA has also failed to introduce innovative street lighting schemes with proper planning, design & installation including rebates in capital cost.

Traders and squatters are occupying many of the open spaces of the city. KMC is currently initiating city greening through stakeholder and entrepreneur involvement, which needs to be further promoted and continued. Development of privately operated recreation parks on Guthi and private land in cooperation with stakeholders need to be encouraged. Greening also needs to be initiated along the Green Belt of the ring road with active participation of local community and stakeholders.

Fig. 6

Squatter Settlements in KMC

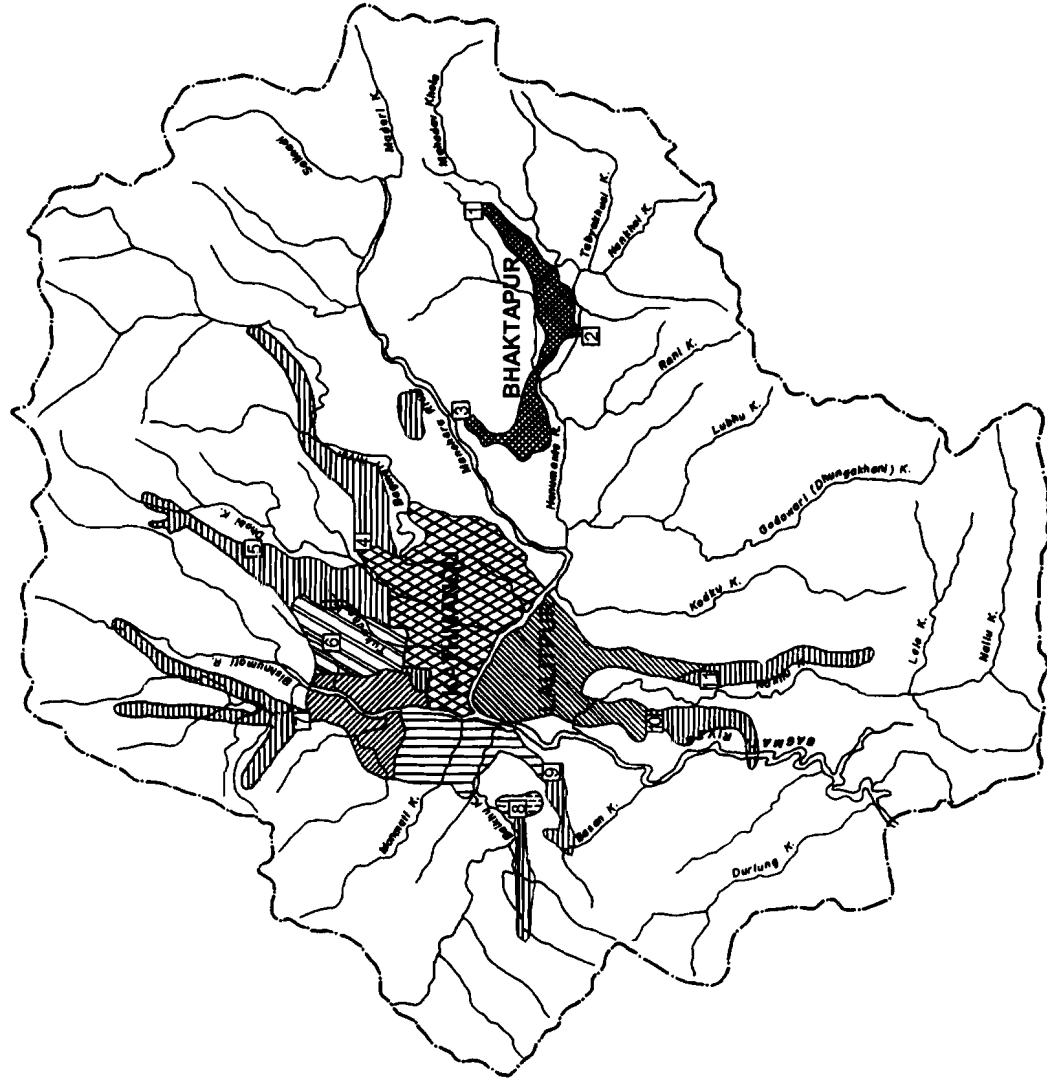


- Legends
- KMC Boundary
 - Road
 - River streams
 - Squatter Settlements

Kathmandu City
Development Strategy

Map Source: KVMP, KMC
GIS section

Fig. 7



- Legend**
- Mahankal Chaur
 - Bansbari and Bhajangal
 - Balaju
 - Maharajganj
 - Saibu and Tahakhel
 - Bode-Thimi and Bansbari
 - Kirtipur
 - The Transmission Lines

- Reservoir**
- 1 Bansbari (Bhaktapur)
 - 2 Katunje
 - 3 Bode
 - 4 Mahankal Chaur
 - 5 Bansbari (Kathmandu)
 - 6 Maharajganj
 - 7 Balaju
 - 8 Kirtipur
 - 9 Bhajangal
 - 10 Saibu
 - 11 Tahakhel



**KATHMANDU VALLEY
Existing Water Supply System**

**KATHMANDU CITY
DEVELOPMENT STRATEGY**

Source:

1.7.11 Heritage Conservation

With its urban history going as far back as 1500 years, Kathmandu Metropolitan City (KMC) shares a significant portion of the world famous built heritage of Kathmandu valley (KV). **Within its jurisdiction lie four of the seven monuments zones constituting the KV World Heritage Site (KVVHS) as listed by UNESCO.** Apart from these monument zones, namely Kathmandu Durbar Square, Pashupatinath, Svayambhu and Baudha, there are many more, less known sites of buildings or other forms of cultural heritage, which are as, or more, important from the standpoint of the living culture of the people. The ancient sites of Pachali Bhairava and Machali, Teku, Naxal and Hadigaon, Chabel Ganesh and Dhando Chaitya, Balaju and Mhepi, to name a few, carry significant emotional, religious and cultural values for the people. The Kathmandu Valley inventory lists as many as 256 individual monuments and monument sites in the historic core, alone. The importance of heritage to KMC accrues because of its paramount role in defining the visual and cultural environment of the city core and hence of the city as a whole. The listing of the four monument zones of KMC within the KVVHS, which cited the heritage value as "unparalleled in the world" in 1978, has further added responsibility to KMC as a repository of the heritage of mankind too. **Recent debates and concerns of the country on possible impending action of UNESCO of putting KVVHS in "endangered list" more than drives home the point that the cultural heritage of KMC and other sites have acquired a 'national identity' status and has become a matter of pride for Nepal in the international committee of nations.** For the image of the city and the identity and pride of the nation, and more so, because of their continuing loss and threats to the city from developmental pressures, city development strategy for KMC needs to actively protect, conserve and promote the physical and other heritage so that its cultural image definition is retained and enhanced.

1.7.12 Community Development

During the past decades, Kathmandu City has observed and experienced various forms of community development approaches. In the past medieval society of Nepal, establishment of different forms of "Guthis" was a common practice to carry out various social services and community development activities. People belonging to the royalty and affluent class along with

commoners alike used to establish such social entities to perform different forms of social services. Such institutions continue to hold great influence over socio-cultural and community development initiatives within the Newar ethnic group of the valley.

Establishment of modern organizations to initiate social welfare programs in the country started only in the 40s. In spite of the rigid political power structure some commendable social welfare institutions were established in the country during the Panchayat regime (1962-1989). Under strict Government regulation, Nepal did make considerable efforts to set the foundation of community development process during this period. However, the main thrust was directed towards the rural communities.

In spite of the high amount of public services and opportunities available in the Kathmandu City in comparison to other parts of the country, the city's socio-cultural values have suffered considerable damage. **The usual pattern of socio-economic change manifested by more materialistic and individualistic behavior is being observed in KMC as more people have begun to show indifference towards community work.**

The low priority accorded to urban areas as well as the lack of proper planning process during the last four decades could be identified as the prime factors hampering the development process in Kathmandu Valley. Presently, KMC has 12 departments within its organizational structure to undertake various community development activities. The Social Welfare Department is the main unit to look after community development programs but its activities are very limited. The indifference toward CD activities of the mass populace, inadequacy of financial and human resources along with weak managerial capacity have highly constrained the CD activities in KMC. **Given its present circumstances, coordination and integration of programs is one of the main challenging issues of KMC.**

The available records of Social Welfare Council show that **there are 2,681 NGOs and INGOs in operation within KMC** to undertake various community development initiatives. It has been also observed that the prevailing situation and constraints within KMC has also hampered it from taking a leading role in streamlining collective efforts in the development process. KMC should try to provide additional

CITY DEVELOPMENT STRATEGY

momentum to CD programs in the city by reorienting and restructuring its present structure and CD policies in line with the emerging trends and Local Self-Governance Act.

1.7.13 Environment

The population growth, land use changes and the economic scenario must be seen in the context of KMC's environment. **The conditions with respect to basic infrastructure in Kathmandu are intrinsically related to the environmental quality.** While many of the environmental problems faced by the valley have been contributed by inappropriate or inadequate or substandard infrastructure, the pressure on existing infrastructure is already great and is likely to deteriorate further. **A large number of the environmental problems seen in the KMC are strongly related to the poor quality of existing infrastructure including the fact that economic activities and urban development have outstripped the capacity for maintenance, upgrading and expansion of infrastructure.**

1.7.14 Municipal Finance

Urbanization in KMC demands rapid expansion of services and infrastructure facilities and puts

considerable strain on municipal finance. **In the context of municipal finance, KMC is characterized by low collection of taxes, insufficient and under-qualified staff, dependency on the central government for the local development fee, and weak financial monitoring and evaluation.** KMC's own funds have not been able to keep pace with the incremental rate of urbanization, fast growing population, and increasing demand for its services.

However, there exist various opportunities in the area of municipal finance. If KMC as a local government has to provide effective and efficient municipal services to the people, it must have a dependable source of income independent of outside grants including those from central government. There is an urgent need for KMC to strengthen its capability and competence to enhance revenue and mobilize resources as per the provisions of the LSGA. Besides resource mobilization, the combined effort of elected representatives and bureaucratic structure through timely and planned intervention could bring change in different sectors such as budgeting, private sector participation, and accounting & financial reporting procedures.

2.

City Development Strategies

2.1 URBAN PLANNING

2.1.1 Urbanization Trends

Although urban expansion outside the compact historic city core area had begun in the 19th century during the Rana regime when large palace complexes were built away from the city, rapid urban growth of the city occurred only after the political changes of 1950. The city grew initially in the east, north-east and north on easily accessible well drained highlands along the major arterial roads. Urban growth accelerated further during the 1970s and 80s, especially after the construction of the ring road, as more areas were made accessible and today covers most of the municipal areas, including the low-lying flood plains.

The urbanization process in KMC has been haphazard and inefficient and of less than desired density with many of the developed areas suffering from poor access and deficiency in infrastructure services. In the absence of any regulatory controls, urban growth has also spilled over into the surrounding Village Development Committees and in the east, connecting KMC to Madhyapur Thimi and Bhaktapur municipalities.

Without proper plans and regulations to control and guide urban development of the city, low-density urbanization threatens to prevail within the existing city area and to encroach unchecked into the surrounding Village Development Committees.

2.1.2 City Development Plans

The statutory land use plan for KMC dates back to 1976. The plan is out of date and can no longer function as a document to effectively regulate and guide the development of the city. Without zoning regulations, detailed area plans or coordinated infrastructure development programs the plan has not been able to control the unplanned haphazard growth of the city. Attempts had been made in the past to revise and update the plan. Unfortunately, none of the later plans were officially approved for implementation.

The Kathmandu Valley Town Development Committee under the Ministry of Physical Planning and Works and the Department of Urban Development and Building Construction is currently responsible for preparing physical development plans for KMC and monitoring its implementation. Since 1994 KVTDC has transferred

Table 5: Actual and Projected Population of Kathmandu Valley.

Municipality/VDC	Population						Annual Growth Rate				
	1971	1981	1991	2001	2011	2021	71-81	81-91	91-01	01-11	11-21
Kathmandu MC	150,402	235,160	421,258	729,690	1,011,105	1,382,298	4.57	6.00	5.65	3.32	3.18
Lalitpur SMC	59,049	79,875	115,865	163,923	229,852	319,655	3.07	3.79	3.53	3.44	3.35
Bhaktapur M	40,112	48,472	61,405	74,707	105,561	147,983	1.91	2.39	1.98	3.52	3.44
Kirtipur M	20,814	24,406	31,339	37,877	46,477	57,030	1.60	2.53	1.91	2.07	2.07
Madhyapur Thimi M	20,640	26,076	31,970	39,988	49,767	61,938	2.37	2.06	2.26	2.21	2.21
Valley VDCs	253,942	327,011	417,072	525,498	577,642	628,344	2.56	2.46	2.34	0.95	0.84
Total Valley	544,959	741,000	1,078,909	1,571,683	2,020,404	2,597,248	3.12	3.83	3.83	2.54	2.54
% All Municipalities	53.40	55.87	61.34	66.56	71.41	75.81					
VDCs with >10000 pop			1	4	15	34					

Source: National census 1971, 1981, 1991, Draft Kathmandu Valley Development Plan 2020, KVTDC, July, 2000

Note: Significant reduction in the projected growth rate of the Valley VDCs partly due to the urban bias of the Component and UN method used for population projection.

CITY DEVELOPMENT STRATEGY

Table 6: Kathmandu Valley Land Utilization

Land Use	1984 ¹		1994 ¹		2000 ²	
	Area (ha)	%	Area (ha)	%	Area (ha)	%
Urban	3096	4.8	8378	13.1	9193 ³	13.8
Agriculture	40,950	64	33,308	52.1	27,570	41.4
Forest/Grassland	19,439	30.4	20,945	32.7	20,677	31.0
River	479	0.8	583	0.9	496	0.7
Others (airport/pond etc.)	NA	-	336	0.5	310 ⁴	0.5
Abandoned land	NA	-	414	0.7	NA	-
Rural Settlement ⁵	NA	-	NA	-	8404	12.6
Total	63,964	100	63964	100	66,655	100

1 Source: Regulating Growth, Kathmandu Valley, IUCN, 1995.

2 Source: Draft Development Plan 2020 for Kathmandu Valley, KATDC, 2000.

3 Includes 2593 ha. of new residential development in VDCs which are mainly urban sprawl

4 Covers transportation only.

5 Consists predominantly of traditional village settlements.

the responsibility of issuing building permits to KMC. Apart from this and minor land development works, KMC has not been involved in planning activities, partly because of limited institutional capabilities. For the same reasons, KMC has not been able to take on the full planning functions for the city as provided for in the Local Self Governance Act 1999.

Many of the city services are currently owned and maintained by different government sectoral agencies. Lack of coordination among agencies as well as lack of an updated plan to guide city development have resulted in ineffective implementation of programs, duplication of works and sometimes even to conflicting actions. **Because of the lack of clear delineation of responsibilities and the sectoral approach to development of the city, in the past no agency took overall responsibility for the urban management of the city.** This has tended to result in haphazard growth and gradual decline in the level and quality of services in the city. After the promulgation of the Local Self-Governance Act, the most obvious choice of agency to manage the city is KMC. However, KMC as a whole needs to be strengthened both institutionally and financially if it is to successfully fulfill its responsibility

Table 7: Urbanized VDCs of Kathmandu Valley

	Total VDCs	Urban to Semi-Urban VDCs			
		1994	%	2010	%
Kathmandu	65	16	36.9	32	49.2
Lalitpur	24	9	37.5	16	66.6
Bhaktapur	21	8	23.8	16	76.1
Total	110	33	30.0	64	60.0

Source: Regulating Growth, Kathmandu Valley, IUCN, 1995.

for the proper planning and urban management of the city.

2.1.3 Goals

Based on the broad vision for KMC, the following goals have been formulated for the proper planning and management of the city:

1. To promote **planned development** of the city and ensure efficient use of land and infrastructure services.

2. To introduce **land use zoning** which is flexible enough to easily respond to the changing trends but clear about prohibition of incompatible uses.
3. To involve the public in the planning process so as to make the **plans responsive to their needs**.
4. To **strengthen the planning and management capacity of KMC** so that it can independently prepare city development plans and ensure proper implementation and management of the city.
5. To improve **coordination among all agencies** involved in development activities in KMC and encourage private sector involvement.

2.1.4 Issues:

1. The existing statutory plan for KMC is outdated and ineffective in regulating urban development.
2. Lack of coordination between physical planning and infrastructure development.
3. Inefficient use of land and services due to low density urban sprawl with pockets of inaccessible land within the city.
4. Unplanned and un-integrated urban expansion occurring beyond municipal areas into adjoining VDCs.
5. Lack of space within the existing municipal area for requisite development purposes.
6. Inadequate zoning regulations and weak monitoring of development activities.
7. Land developed by brokers and real estate developers not according to norms and standards.
8. Existing land registration process of urban land based on agricultural productivity and not according to its current urban use, leading to lack of control on urban growth.

9. Lack of coordination among agencies involved in development activities in KMC.
10. KMC institutionally weak in urban planning and urban management functions.
11. Lack of control on industrial establishments.
12. Frequent violations of planning and building byelaws.
13. Lack of people's participation in the planning process.
14. Inadequate cost recovery for infrastructure services
15. Lack of open spaces.
16. Lack of clearly defined river domain.

2.1.5 Strategies:

1. **Prepare a new land use plan** for the city along with zoning/ sub-division regulations, detailed area plans, infrastructure development plans etc. conforming to the larger valley-wide plans and covering VDCs which would benefit by being included in the city. Prepare legal procedures to implement the plan and conduct periodic review and revision of the plan.
2. Make it mandatory to prepare and **implement integrated infrastructure development programs** in conjunction with the proposed development of the city as per the land use plan. Publicize proposed land use and infrastructure development programs.
3. Initiate land development programs for land locked areas within city as well as formulate appropriate policies to promote densification in the city including **revision of building bye-laws** and introduction of vacant land tax.
4. **Expand municipal boundary** to incorporate and integrate the fast urbanizing areas outside KMC boundary and ensure the new land use plan is extended to cover the areas to be included. The future land requirements of KMC should be accounted for while expanding the municipal area.
5. **Prepare zoning regulations** as per the revised land use plan and transfer zoning boundaries on cadastral maps. The regulations should be clear about non-permitted uses and should specify the conditions for permitting existing non-conforming uses or for their phased relocation. Involve the Revenue Department of KMC in monitoring compliance to the land use.
6. Identify and develop **appropriate locations for industries**.
7. **Formulate land sub-division regulations** for planned area developments and make it mandatory for the brokers and real estate developers to get approval from the planning agency before the new sub-division is registered with the Department of Land Administration.
8. Introduce a separate category for registering land under urban use or land destined for future urbanization. **Introduce a clear boundary separating urban and rural areas.** KMC to conduct land administration functions for areas under its jurisdiction.
9. **Strengthen CPC** and institutionalize its roles and functions as well as set up a mechanism for it to hold coordination meeting with all the concerned agencies on a regular basis.
10. **Strengthen UDD and PWD** of KMC with qualified staff and by involving them in the ongoing planning activities of KVMP, by providing relevant training to their staff and internalizing the experience and project outputs of KVMP to ensure continuity by KMC units.
11. Formulate **regulations for obtaining approval** from the planning agency prior to land registration and for obtaining license for industries.
12. Set up a separate regulatory unit under UDD to oversee enforcement of planning and building regulations, invest it with legal authority to take necessary actions against violators and provide necessary equipment. **Initiate action to demolish unauthorized encroachment on public land.**
13. **Ensure people's participation and maintain transparency** in all future planning activities and provide easy access to planning documents. Encourage involvement of user committees and neighborhood committees in local level cost-sharing development activities.
14. **Involve private sector** in infrastructure development and relate cost with quality of services.
15. Determine appropriate locations of open spaces within the city as per relevant norms and provide accordingly. Simultaneously, review and halt all unwarranted conversion of existing open spaces. Also **relocate non-central government functions to outer fringes** and develop some of the vacated areas into public parks. Convert appropriate unutilized or unproductive guthi and public land within KMC into public parks.
16. **Clearly demarcate river domain** on cadastral map and maintain a minimum development set-back of 20m from the edge.

2.1.6 Progress Indicators:

1. Implementation of new land-use plan
2. Preparation of integrated infrastructure development plans
3. Population Density
4. Enlargement of KMC boundary
5. Implementation of new zoning regulations
6. Land uses in KMC
7. Establishment of enforcement unit within UDD
8. Number and areas of public open spaces
9. Demarcation of river domain on cadastral maps.

2.2 URBAN ECONOMICS

2.2.1 Existing Situation

Kathmandu is a capital city as well as an economic power center of Nepal. It is a metropolitan city and has displayed all the characteristics associated with such areas. It has the highest per capita income in the country. The incidence of absolute poverty is minimal although income disparity is getting wider. People are highly literate and highly specialized human resources are concentrated in the city. **However, despite the favorable situation for development, the city has been suffering from a plethora of problems which need to be given immediate attention.**

The Tribhuban International Airport has sustained Kathmandu's importance as an export and import business center. Structural composition of both gross domestic products and employment show the dominance of non-farm sectors. Female literacy rate and female participation rate in the labor force are also significantly high. Nonetheless, unemployment rate is also estimated to be high at more than one digit figure. Employees form the major group among the employed people. It shows a **transformation in the organization of economic activities** to a higher form - both in terms of nature and scale.

Trade, tourism, and service sectors are the major economic activities. It has also been an important manufacturing centre for such exportable items like carpets, readymade garments, and other handicraft products. However, their

growth in Kathmandu, particularly of carpets and readymade garments, is constrained by their contribution to environmental pollution, and their demand on water supply. **Information technology, financial institutions, other service sectors etc. have shown an increasing trend in the recent years.**

Kathmandu has good physical infrastructures. It is well connected with other parts of the country by road. It has satellite based communication facilities. However, its city roads are in shambles and have not been able to handle their ever-increasing demand. The other facility experiencing a heavy strain is water supply. Sanitation needs significant improvements. Uninterrupted supply of electricity is yet to be attained, although it could be adequate after the commissioning of Kaligandaki 'A' in the near future. There are problems with environmental situation and pollution. **The other stark feature of the urban growth is the emergence and growth of slums and squatter settlements, and also a section of people living in unhygienic and unacceptable condition due to poverty.**

In improving infrastructures, roles of different agencies have yet to emerge clearly. This is true for social sector development as well, particularly between central and local government bodies in managing public health and education facilities. Greater responsibilities accompanying the higher level of authorities to the institutionally weak local government bodies calls for **more pragmatic and careful approach in defining the roles of central and local government bodies** so that development works will proceed unhampered.

Table 8: Composition of National GDP (in percent)

Originating Sectors	1985/86	1990/91	1995/96	1999/00**
1. Agriculture, Fisheries & Forestry	50.3	47.5	41.2	39.2
2. Mining & Quarrying	0.4	0.5	0.5	0.5
3. Manufacturing	6.2	6.3	8.7	9.5
4. Electricity, Gas & Water	0.5	0.8	0.8	0.8
5. Construction	8.7	9.3	9.9	9.6
6. Trade, Restaurants, & Hotels	10.5	10.5	11.1	11.1
7. Transport, Communication & Storages	6.0	6.6	7.7	8.5
8. Financial & Real Estate	8.8	9.5	9.9	10.2
9. Community & Social Services	8.5	9.2	10.2	10.6
Agricultural GDP at factor cost	50.3	47.5	41.2	39.2
Non-Agriculture GDP at factor cost	49.7	52.5	58.8	60.8
Total GDP at factor cost	100.0	100.0	100.0	100.0

**Preliminary estimate
Source: Economic Survey - 1999/2000, Ministry of Finance

CITY DEVELOPMENT STRATEGY

Table 9: Annual Percentage Change in National GDP and its components (in percent)

Originating Sector/Period	1985/86- 1989/90	1990/91- 1994/95	1995/96- 1999/2000
1. Agriculture, Fisheries & Forestry	4.1	1.5	3.5
2. Mining & Quarrying	5.5	5.8	5.9
3. Manufacturing	5.2	14.0	7.4
4. Electricity, Gas & Water	13.9	10.1	8.0
5. Construction	6.5	6.5	4.4
6. Trade, Restaurants, & Hotels	4.4	7.5	4.4
7. Transport, Communication & Storages	5.3	9.8	6.9
8. Financial & Real Estate	5.2	6.4	5.7
9. Community & Social Services	6.7	6.8	5.7
Agricultural GDP at factor cost	4.1	1.5	3.5
Non-Agriculture GDP at factor cost	5.5	8.2	5.7
Total GDP at factor cost	4.8	5.0	4.8

2.2.2 Issues

Kathmandu is progressing along the path charted out by its history. In the recent history, however, nature and forms of familiar roles of the city have shown a significant change. Science and technology have not only brought about a change in production and distribution relationships but also led to a change in perspectives towards international relationship. International linkages in both product and factor markets facilitated by financial intermediaries, economic rather than political forces determining international relationships, and liberal economic policies broadly defining the nature of economic relationships between the countries are some of the aspects determining the prospects of any city. While these international relationships are governed by the introduction of modern technology and management

norms, the preparedness at the domestic front in terms of human resources and organizational development cannot be termed satisfactory. The gap between these two considerations will determine the place Kathmandu, and for that matter Nepal, will have in the international comity of nations. Kathmandu being in a favorable position within the country should take a lead in closing the gap between the preparedness of the country and the need to be competitive at the regional and international level. The roles of central government and KMC have to be seen in this perspective. The central government, for its need to oversee the country as a whole, may find difficulty in allotting more resources to Kathmandu while such investment will be very much essential to make the country competitive at the international front. It calls for **greater authority and empowerment of KMC in both mobilizing resources and carrying out greater responsibilities.**

Table 10: Percentage Distribution of Employed Population of Kathmandu Valley by Occupation Group

Occupational Group	% of Employed People
All Households	100
Professional and Technical	11.5
Administrative and Managerial	4.5
Clerical	7.7
Agriculture	15.3
Sales and Service	11.8
Production	15.0
Construction	20.7
Transport and Communication	4.5
General Laborers	4.5
Others	4.5

Source: Household Budget Survey (1995/96, Nepal Rastra Bank)

Given the changing situation as discussed in the previous paragraph, comparative advantage for the country as well as for Kathmandu city proper have to be defined.

Physical infrastructures need to be better planned to cater to the needs of the economic activities. Information technology and software development often seek the development of IT park, and its feasibility can be assessed.

Resource-need will be far greater than the existing level of income and expenditures of KMC. **Greater partnerships will be essential for sharing such resource crunches particularly for developing physical infrastructures.** In this context, there is a need to define the roles of different stakeholders, coordinate,

Table 11 : Annual Average Per Capita Income by Source (1995/96)-Urban Areas of Kathmandu Valley.

Sources of Income	Income in Rs	in %
Total Monthly Income	24,561	100
Current cash income	18,632	75.9
wages and salaries	8,667	35.3
enterprise income	5,183	21.1
(agricultural)	(317)	(1.3)
(non-agricultural)	(4,866)	(19.8)
Property rental income	2,828	11.5
Pension and assistance	1,586	6.5
Other cash income	367	1.5
Income in kind	5,929	24.1
Home produced	71	0.3
Free of cost	689	2.8
Received as part of pay/wages	5	
enterprise income	940	3.8
(agricultural)	(911)	(3.7)
(non-agricultural)	(28)	(0.1)
Rental Value of a self-owned home	4,225	17.2

Source: Household Budget Survey (1995/96, Nepal Rastra Bank)

and develop partnerships between them. Besides, there is also a need to think in terms of creating a situation for deficit financing and public borrowing for KMC.

KMC's role in development activities, both in physical infrastructure development and social sector programs, is somewhat limited primarily because of revenue crunch. These activities have particular relevance in **reducing the incidence of poverty and unemployment**. Local government bodies could initiate first by managing the central government grants in undertaking social priority programs. Revenue potentials of KMC have yet to be realized.

Environmental condition is in a mess. Sanitation facilities are grossly inadequate. Rivers, parks, and city landscapes are in general deteriorating to an alarming situation. With the unruly growth of the city, problem of solid waste management is compounding, and it is getting more complex due to the problem of dumping sites and the absence of effective introduction of service charges for the services rendered by KMC.

KMC has so far organized itself to limited function of operating and maintaining sanitation facilities, solid waste collection and dumping, regulating construction activities, and limited tax collection. **It is poorly**

equipped both in terms of human resources and management capability to cope with new challenges. Such challenges have emerged from the need for greater resource mobilization through both tax and non-tax measures, and to undertake development activities of promoting both infrastructures and social sector programs.

2.2.3 Strategies

Define the roles of different stakeholders, coordinate them, and develop partnerships between them particularly for sharing in the infrastructure development.

Prepare Kathmandu for the development of

- Tourism
- Information Technology and Software Development
- Sports Promotion
- Service Sector

Assess the infrastructure need for promoting these economic activities and for improving overall city environment, and assess their investment need and potential for partnerships in their development.

Make an assessment for evolving policy to allow KMC to go for public borrowing.

Build up the management strength and institutional capacity building of KMC.

Assess the potentials of KMC for gradually taking-up greater responsibilities in development activities particularly in infrastructure and social priority sector development.

2.2.4 Progress Indicators:

1. Introduction of service charge for essential services such as solid waste management.
2. Consolidation of City Planning Commission to develop periodic plans to strengthen the economic performance of KMC.
3. Resource mobilization is activated in the form of donor support and increased central govt. funding.
4. Public borrowing prospects are clearly identified.
5. Private sector participation is encouraged and arrangements are made to ensure adequate legislation to secure the investment.

CITY DEVELOPMENT STRATEGY

Log frame for City Development Strategy

ISSUES	IMPLICATIONS	STRATEGIES	ACTORS/DONORS
Need for identifying the role, and make Kathmandu and the country competitive in the international context.	Keep up and promote competitive edge based on the states of technology and economic relationships	Identify comparative advantages - sports, tourism, IT, business center	HMG, KMC, CBOs, Donors particularly multi-lateral.
Inadequate investment and inefficient physical infrastructures	Inefficiency in production process and increase in cost of production	Identify the infrastructure needs and forge partnerships between HMG, KMC and private sector.	HMG, KMC, private sector including joint ventures, Donors particularly multi-lateral.
Resource crunch with KMC	Poor infrastructure, environmental problems, and poor service delivery	Assess the possibility for KMC to go for public borrowing	HMG, KMC and private sector
		Introduce service charges on solid waste management	KMC
		Strengthen and consolidate collection of tax and non-tax revenue	KMC
Weak implementation capacity of KMC	Poor service delivery, poor revenue collection, unruly city development	Build up the management strength and institutional capacity building of KMC.	HMG, KMC and donors
Limited role of KMC in development activities	Sterile image as local government bodies	Greater role in undertaking development and social priority sector programs	HMG, KMC

2.3 INSTITUTIONAL DEVELOPMENT

2.3.1 Existing situation

KMC as an institution should be strong enough in its foundation, capacity and performance which are the major elements of institutional development.

Whereas foundation represents its basis for an identity and defines functions in the society through mission, legal base and constituency, capacity constitutes its organization, resources and leadership necessary for its smooth functioning. Finally, the current activities, their relevance and effectiveness represent KMC's performance components in a broad term.

KMC extends its services to a population of about 421,258 (as per the census of 1991) which is growing at the rate of 6 percent in the 35 Ward Committees. From each Ward Committee there are five representatives. There are quite clearly defined rights, duties and responsibilities of these WCs. Members are also clear about their functions, duties and responsibilities as defined by the Act. In addition, a number of NGOs are involved in implementing KMC functions at the ward level. The private sector is interested in the areas such as bus park management, solid waste management and in the construction activities. A number of government ministries, departments and offices are located in the KMC area. Similarly, its services are essential for cleaning the city daily of 300 tonnes of garbage, to increase national revenue by satisfying its stakeholders and making it more friendly, clean, livable and a competitive city of the future. It has to accommodate not only its current population but also plan for its territorial expansion to accommodate more people in the future.

KMC has no clear and straightforward governing structure with defined roles and accountabilities for its bodies, committees, members and staff. At all levels of the organisation accountability has not been well established for both political and executive personnel. There is a state of confusion prevailing in the relation between: the Mayor and Deputy Mayor, Advisory committees and staff, Committees and staff, Department heads, Ward Committees and Advisory committees, Ward Committees and KMC staff. In such a situation it is difficult to predict how decisions are to be made and executed at the different levels of the KMC. Leaders at different levels are not seen to be committed to their posts. The relation between the Mayor and Deputy Mayor and with their secretariat is not satisfactory.

Politically the KMC is divided into different ideological groups. This has made it difficult to make timely decisions on organisational and planning matters. One party electorate attempts to dominate the others, keeping aside their goal of city development. The impact of such tendencies is clearly manifested in the development and environment management capacity of the KMC.

It is difficult for the KMC to undertake its functions without the close co-ordination and consultation of ministries, departments and other government offices located in the KMC. Matters about whom to report to in the hierarchy is unclear. Similarly, what the relation should be between the CEO and the Mayor's personal assistant is unclear as well. The activities of the Department of Public Works, Department of Urban Development and Department of Environment have to be closely related with this organisation. It cannot act without the proper co-ordination of the government agencies such as Ministry of Local Development, Ministry of Land Reform and Management, Ministry of Law, Justice and Parliamentary Affairs, Ministry of Physical Planning and Works, Ministry of Water Resources, Ministry of Health and Ministry of Tourism and Culture. Since these ministries have their own departments and local offices within the city it is one of the challenges for the KMC to work in co-operation with them.

Furthermore, KMC has no mechanism to enforce its authority and power without proper co-ordination with the government Ministries, departments, offices and authorities. This makes it difficult to tap the available financial resources. No clear cut mechanism exists between HMG and KMC in co-ordinating roads and transportation, refuse collection, street cleansing, public health and power distribution. There is still a domination of the government agencies in the development activities at the city area.

There is little co-ordination between the local political representatives and the KMC employees. A sense of co-operation is lacking between ward level representatives and divisional heads. However, neither the central KMC office has any proper mechanism for ward level participation nor do the divisional heads seek ward level co-operation for programme implementation. In fact, the working style of the KMC employees, consultants and other specialist staff is completely centralised and individualistic. In such a situation even if the Act makes provisions for decentralisation, its implementation is less feasible in the present institutional set-up of KMC.

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The Secretary's role in administration is inordinately centralized and dominant. Among the staff, Chief of Administration, Public Works and Environment Department are relatively busy and powerful in comparison to the other administrative chiefs and staff.

2.3.1.1 Foundation:

KMC was established as an institution 99 years ago in the name of Safai Adda. Currently, it is working towards the vision of "My Legacy, My Pride, My Kathmandu". However, without clear-cut mission, objective and goals it has failed to develop itself within the perspective of a capital city region. In such a situation whatever it plans to achieve has only short-term impact on its development. In the absence of clarity in many of its provisions and byelaws, the rules and regulations promulgated by the LSG Act have not been completely exercised. There is a growing controversy regarding its status as to whether it is a local government or a local body. Its constituency is overwhelmingly burdened in terms of increasing population, pollution, refuse collection problems and urban unemployment. **The main weaknesses related to its foundation are: no explicit objectives, no periodic plans, short term city development approach, ineffective Board, Committees, Commission and Advisory Bodies.**

2.3.1.2 Capacity

Based on some of the ongoing activities it appears that the current leadership is very positive towards "good governance for city development". However, there are many lapses especially in the areas of accountability, delegation of authority and relations among various executives and staff of KMC. Many events in recent days show that there is growing ideological conflict among political party lines in city development activities too. The current leadership has to work hard to be capable for establishing good relationship between external consultant groups and KMC staff, which has direct impact on project formulation and its execution. In addition, KMC severely lacks human, financial and material resources to function effectively and to work on making the city livable, bankable and competitive. **The economic dependency of the KMC is increasing and its administrative and overhead costs are not under control.** Adequate revenue sources have not been properly identified to meet the budgetary requirements of running the office and implementation of its future plans and programs.

The minimum fiscal standards have not been maintained. KMC's current fiscal crisis has been averted only because of the funds from ongoing donor-assisted projects. The newly proposed organization structure is vague and cannot, in principle, coordinate electoral and line staff activities in the KMC. Some of the major weaknesses in its current capacity include: increasing political differences in decision making, inadequate knowledge of employees, low morale of employees, increasing financial irregularities, vague organization structure, lack of performance management and lack of required data base.

2.3.1.3 Performance

Some project level activities have been completed and some are ongoing. Past experience has shown that activities which are undertaken with the involvement of electorates, experts, and staff have created a feeling of ownership. **Many staffs argue that there should be direct involvement of the KMC staffs in project formulation and execution, failing which questions of ownership tend to arise in the execution of such project.** KMC has made substantial progress in mobilizing its local capacity through users' committees, clubs and other youth organizations. However, it still lacks the mechanism to sustain these activities. Some problems related to performance of the KMC are: lack of accountability of the elected members and staff, lack of monitoring and evaluation system, problem of ownership in the foreign donated projects and no mechanism to implement plans and programs on a sustained basis.

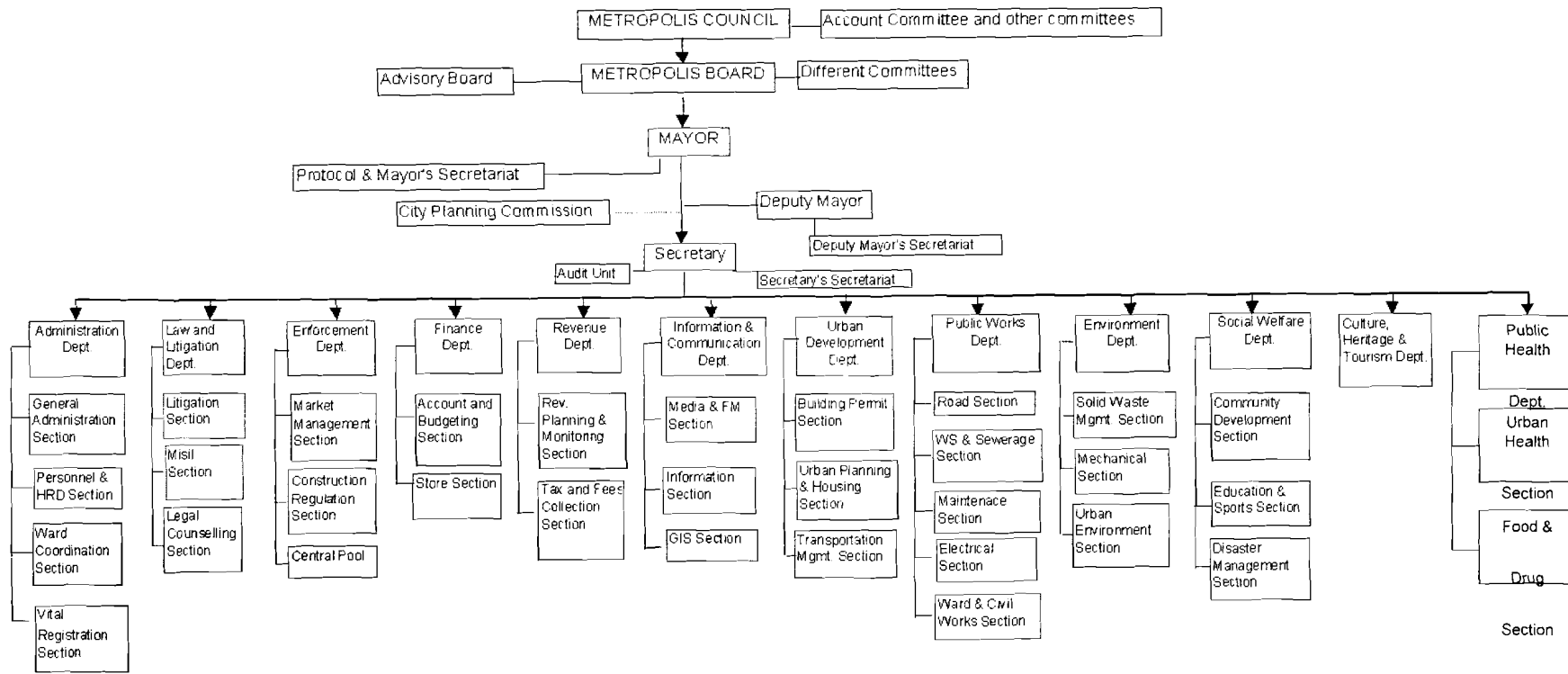
2.3.2 Issues Identified

The major issues identified under the headings of three major institutional elements are the following:

Foundation:

- ❑ The need for clear cut vision of KMC
- ❑ The need for explicit objectives of KMC
- ❑ The need for clarity on whether KMC is a local body or local government
- ❑ Revision in the current Acts and Regulations
- ❑ The need for a development perspective of Kathmandu as a capital city
- ❑ The need for making Board, Committees, Advisory bodies very effective
- ❑ The need for making elected and administrative staff accountable in work

**Chart 1: Improved Organizational Structure
Kathmandu Metropolitan City Office**



Total Departments and Sections:

Proposed Structure:	Previous Structure
No. of Department = 12	No. of Department = 11
No. of Section = 33	No. of Section = 43

CITY DEVELOPMENT STRATEGY

Capacity:

- ❑ The need to confer more power to the Mayor so that s/he face no difficulty in formulating and implementing development works.
- ❑ The need for proper monitoring and evaluation and reporting mechanism
- ❑ The need for dissemination of knowledge and skills acquired from various programs by elected and line staff
- ❑ The need for minimising political differences among the elected to plan and executive city development activities
- ❑ The need to enhance managerial and organisation related knowledge and abilities of administrative and elected personnel
- ❑ The need for detailed financial plan to manage sources and uses of funds
- ❑ The need to strengthen management and financial information system
- ❑ The need to control increasing fiscal irregularities
- ❑ The need for using services of NGOs, local clubs and other user committees to enhance capacity of KMC
- ❑ The need to make the organisation structure more effective
- ❑ The need for evaluating performance
- ❑ The need for involving private sector in the collection and mobilisation of financial resources
- ❑ The need for reviewing acts, for example, relating to transportation, roads, water resource, sanitation, housing, planning and local development ministries to increase co-ordination of KMC with other government bodies
- ❑ The need to improve physical and material infrastructure of the KMC
- ❑ The need for establishing a data base system
- ❑ The need for appointing CEO for a fixed tenure .

Performance:

- ❑ The need for making staff and elected body accountable
- ❑ The need for involving line staff in the project management and implementation process.
- ❑ The need for developing contact mechanism at the grass root level with KMC's stakeholders
- ❑ The need for involving local NGOs and users committees in the development process at all levels, from the centre to the grass root level
- ❑ The need for support agency at the local level to train local NGOs and Committees in the urban development activities.

2.3.3 Strategies:

Foundation

- ❑ Formulate **clear vision of the KMC** which enhances peoples' interest in its development
- ❑ Base all plans, programme and activities on its vision and objectives
- ❑ **Clarify the responsibility and accountability** of the local bodies
- ❑ Recognise **KMC as a local government** working within a capital city perspective
- ❑ Develop a **long term perspective plan**, at least for 20 years
- ❑ Make committees and other **bodies accountable to the Mayor**
- ❑ Clarify roles and **accountability of elected and administrative bodies**

Capacity

- ❑ Enact **new Metropolitan Act** to introduce a different system of electing the mayor whereby s/he has greater authority to initiate development works
- ❑ Determination of development priorities
- ❑ Organisation change
- ❑ Develop **only doable** income and expenditure plan
- ❑ Develop **computerised** management and financial information system
- ❑ Control irregularities
- ❑ Mobilise local development agencies
- ❑ Develop mechanism for regular monitoring and evaluation by establishing a M&E Department.
- ❑ KMC has to be very serious about starting a reporting mechanism
- ❑ Reorganize the current organisation structure
- ❑ Enhance **private sector-KMC partnership**
- ❑ Initiate cost-sharing practices
- ❑ Develop byelaws to clarify responsibilities of KMC on development activities
- ❑ Improve the current physical and material capacity
- ❑ **Introduce performance contract to appoint CEO**
- ❑ Make provision of Local Self Governance Service
- ❑ Increase **capacity of the department heads** to use data base
- ❑ Introduce a **performance-based work incentives**
- ❑ Disseminate ideas and experience through sharing of ideas and work involvement
- ❑ Establish the practice of exchanging knowledge and ideas among all concerned

Performance

- ❑ Develop **legal accountability**

CITY DEVELOPMENT STRATEGIES

- ❑ Increase **ownership of the project** by involving line staff of KMC
- ❑ Inform and communicate the progress and prospect of KMC
- ❑ **Maximise the use of local based NGOs** to increase development and social activities

2.3.4 Progress Indicators:

Some important institutional indicators which facilitate the successful implementation of CDS in the future are presented below:

Foundation

- ❑ Clarity of KMC, CDS, and other related project objectives for all electoral, staff, and consultants
- ❑ Development of capital city perspective plan of the KMC
- ❑ Settlement of the confusion about whether KMC is a local body or local government
- ❑ Preparation of operational plans
- ❑ Reformation of qualified advisory body including representatives from urban planning and development experts and private sector
- ❑ Formation of expert and staff committee to develop accountability of elected body, staff and others involved in the KMC.

- ❑ Formation of a team with representatives from the government, private sector, KMC and other legal bodies to clarify roles and responsibilities of KMC and other government bodies in the implementation of urban development activities.

Capacity

- ❑ Formation of a five-member Political Counselling Committee (PCC) involving representatives from high level political groups, socially respected persons and at least a legal expert.
- ❑ Formation of a fair Vacancy Committee
- ❑ Initiation of Management Information System
- ❑ Formation of independent audit committee
- ❑ Restructure the current organisation structure
- ❑ Formation of expert team to develop performance management system in the KMC
- ❑ Reactivation of CPC and formation of a Planning Division to implement CDS

Performance

- ❑ Endorsement of the CDS by the City Council
- ❑ Preparation of a complete list of local organisations in different wards
- ❑ Selection of Support Agency at the ward level to activate local organisations through training and development activities.

2.4 URBAN TRANSPORT

2.4.1 Existing Situation

The urban population of Nepal is growing rapidly. Only 3 % of the population lived in urban areas in 1951. By 1957 this growth had risen to 4% and by 1991 it was over 9%. The Kathmandu Metropolitan City has witnessed a growth in population, which is much more than the national average. Unplanned urbanization and deteriorating environmental conditions, and development of industrial units in and around the urban areas have generated a range of environmental problems affecting human health and welfare. These problems are further compounded by the haphazard urban growth which has put a very **heavy burden on the already inadequate infrastructure facilities, especially transportation facilities.** Besides, the huge growth in the number of vehicles, and simultaneous lack of improvement in the existing facilities and disorganized movement of traffic have resulted in increased congestion and accidents which in turn have decreased vehicle speeds affecting road capacity. At the same time, organizational deficiencies and slack enforcement of law and order have contributed greatly to disorganized movement of vehicles and pedestrians. Also due to unplanned investments and financial constraints, desired improvements in the road network system and introduction of efficient modes of transport could not be attained.

Currently there are mainly four institutions involved in the development of Kathmandu Valley transport networks and their management. These are:

- Department of Roads (DOR)
- Department of Transport Management (DOTM)

- Traffic Police (TP), and
- Municipalities.

DOR is responsible for planning and design, construction, rehabilitation and maintenance of the entire road network. On the planning and design aspect, although some planning exercise is being conducted for major roads, valley roads invariably are being neglected. Because of resource constraints only minor works are being taken up from the Government's regular budget. **Although some improvements of the existing road networks in the valley have been carried out with the assistance of donor agencies such as ADB, World Bank and JICA, there are large areas still neglected.** Considering the expenditure made in FY 2055/56 and 2056/57, and proposed budget for FY 2057/58 for Kathmandu Valley City Roads, which are in the range of Rs.60.00 million, Rs.64.00 million, and Rs.71.5 million respectively, major improvement works are not envisaged from the regular fund.

The Department of Transport Management (DOTM) is responsible for transport planning, management, policy formulation, and is also responsible for coordination with international agencies relating to management and execution. **Because of its weak organizational set-up, it has not been able to fulfill its role** besides activities relating to permitting route license, vehicle registration and transfer of vehicle ownership. Its whole structure needs to be reoriented and reframed to bring it to work in line with the delegated functions. The main reasons for non-functioning could be attributed to the agency's inability to oversee its deficiencies and to improve them.

Traffic management is being looked after by the Traffic Police and matters related to driver license are being

Table 12: Year Wise Vehicle Population in Bagmati Zone

Vehicle Type	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	2005	%
1. Bus	792	958	1045	1163	1298	1403	1964	6
2. Minibus	1352	1388	1430	1468	1500	1527	1610	1
3. Truck/Tanker	3343	3781	4113	4483	4759	4811	5100	1
4. Car/Jeep/Van	20748	22640	24248	27153	28915	30919	43286	6
5. Three wheeler automobile	3844	3844	3844	3844	3925	4262	5070	3
6. Two wheeler automobile	37774	43506	49299	58029	64142	71612	128900	11
7. Tractor	1623	1635	1670	1672	1672	1672	1672	-
8. Others	2561	2678	3012	3020	3278	3311	3210	1
Total	72,031	80,430	88,661	100,831	109,489	117,836	191,112	8
	(63%)	(61%)	(60%)	(59%)	(57%)	(50%)		
Total of all 14 Zones	114,346	130,955	148,351	171,559	190,672	235,236	-	

Source: DOTM

taken care by a separate wing of Nepal Police. **Although Nepal Police is responsible only for matters related to traffic control, its current functions have been widened** to embrace management aspects. However, desired quality of works could not be achieved due to lack of required facilities and trained personnel in traffic engineering and management.

Under the current Local Self-Governance Act 1999, Kathmandu Metropolitan City (KMC) has been vested with certain authority, among others, activities related to construction and maintenance of road networks other than those currently under the jurisdiction of DOR. **In the circumstances, there is a little scope for KMC to play a major role in the transport sector.** Given the diverse nature and requirements of the various elements in the city transport system it is essential that transport development and management responsibilities should be progressively placed with the main beneficiaries. With this approach urban road networks and their allied functions would become the responsibility of the Municipalities.

Besides the above four major line agencies, there are five ministries and nine associated line agencies involved in planning, governing and providing services in Kathmandu Valley. Because of differing priorities as well as conflict of jurisdiction and authority, the agencies' planning and execution are not well coordinated. Despite this, **KMC is implementing some road improvement activities.** But due to overlapping of responsibilities between different line agencies, none of the agencies has been able to implement the development activities in an effective and planned manner.

Since various agencies are involved in planning and execution process and responsibilities are parceled out and are delegated to other agencies as the occasion arises, the transport sector has experienced unplanned, less

coordinated efforts. Since DOR, TP and DOTM functions extend nation wide their organizational structure should be examined and improved on a wider scale. With regard to KMC, in view of the Government's policy that the Local Government should be strengthened to look after local affairs, KMC's role in transport sector should be widened with adequate provision through amendment of current Local Self Governance Act 1999. While doing so, all prevailing acts related to transport sectors should be reviewed. **Responsibilities and functions of each agency should be neatly defined** so that clear accountability for functioning could be addressed.

The construction and development of main road network in the country was largely dependent upon foreign aid and assistance. Most sections of the strategic network were built and subsequently maintained with the involvement of bi-lateral or multi-lateral agencies. Funding had been either in terms of direct grant, grant-aid or soft-loans. It is important to explore the possibility of local banks' participation. The Government should **encourage and mobilize private banks and institutions to participate in the funding process.** In the present context, international financing institutions are funding approximately 60 to 70 per cent of the total cost of the development works. If arrangement could be made for co-financing by local banks through lending process, major cost sharing will be available for local cost financing from local banks and hence, help to a certain degree, in financing development activities.

2.4.2 Issues

This study has identified the major issues relating to transportation and traffic management, institutional, and financial aspects including infrastructure improvement. The problems currently being encountered cannot be

Table 13: Road Network in Central Region, Bagmati Zone and Kathmandu Valley (June 1998)- in km

	National Highway	Feeder Road (Major)	Feeder Road (Minor)	District Road	Urban Road	Total
Kathmandu	21	17	43	193	431	705
Lalitpur	0	0	33	175	175	383
Bhaktapur	15	23	0	128	6	172
Kathmandu Valley	36	40	76	496	612	1260
Bagmati Zone	224	264	77	1106	636	2307
Central Region	729	472	115	2775	1078	5169
Nepal	2905	1656	179	6615	1868	13223

Source: Department of Roads, Nepal Road Statistics of 1990, 1995 and 1998.

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solved in the short-term and can only get worse if remedial actions are not taken in a planned and sustainable manner. The major key issues are highlighted below and broad activities related to these issues which need improvement in two stages are addressed in Tables A and B.

I. Road Development

- ❑ Shortage of short and long-term planning and programming,
- ❑ Development strategy, and
- ❑ Inadequate infrastructure facilities.

II. Public Transport Development

- ❑ Lack of transportation planning.

III. Traffic Management

- ❑ Lack of proper design for facilities and lack of enforcement of traffic rules and regulations.

IV. Institution

- ❑ Lack of proper coordination between line agencies,
- ❑ Overlapping of functions,
- ❑ Conflict of jurisdiction and authority,
- ❑ Lack of professional manpower, and
- ❑ Absence of strong institution and its management capability.

V. Finance

- ❑ Unplanned investment, and
- ❑ Financial constraints for development works

2.4.3 Strategies

From the critical examination of the existing situation in urban transportation, to achieve effective and efficient transportation system, it is revealed that there is a need for improvement in four essential areas. These are:

Phase I: Institutional development

Phase II: Management of transport and related facilities

Phase III: Development of infrastructures, and

Phase IV: Financing development projects.

The objective of institutional development is to ensure that the institutions are fully capable of functioning effectively in their designated areas of responsibility. Absence of strong institution would lead to the weak management incapable of effective functioning. **Looking at the KMC's anticipated responsibility there is an**

urgent need to improve its organizational structure to cope with the increasing workload, while that of DOR and, DOTM and Traffic Police should be restructured to cater for nation wide activities relating to highways development, transport management and traffic control.

A system within the institution is to be developed for effective implementation and operation of facilities already at hand and those planned for future. Laxity in management impedes the proper operation of facilities and enforcement of governing rules. It is therefore, proposed to **review the present status of concerned departments/agencies** and appropriate measures enforced.

Transportation planning is a basic need to cope with current need and demand generating from future traffic growth. A long-term planning which coordinates with other development activities, industries, land use and population dispersal, etc. is required to form a basis for future development. While doing so, it is suggested that **functional classification of present and planned future road network be determined** so that an arterial road will not function as a street. The planning and programming should be prioritized and executed on incremental process depending on the need and available financial resources.

Looking at the present state of affairs in financing development works, one of the key constraints is providing the necessary funds. In this context, although the possibility of financing for maintenance program is there through implementation of governing act of 1999, it is desirable to look for the prospect of **generating more funds by sharing the vehicular tax imposed by the Government and from increased municipal vehicle tax, house tax, floating bonds, BOT and participation of private banks.** Nonetheless, for major capital investment international donor agencies' assistance will be needed in the foreseeable future.

In the light of the foregoing, with an aim to achieve a well-balanced efficient transport system through an effective management, a strategy divided into four phases is proposed. In designing this, handling the transportation through existing institutions rather than setting up a new department has been contemplated addressing the basic principles in the following four areas:

- a) development of institutions in transport management system
- b) planning and implementation of traffic engineering management

- c) transport sector policy, and
 - d) system of generating funds and their allocation to meet the demand.
- ❑ The disorganized growth in urbanization helped increase the number of vehicles leading to congestion, traffic accidents, and pollution. Further, the inherent dangers are often made worse by poor road maintenance, badly designed intersections, inadequate traffic control devices, pedestrian attitude and lack of proper enforcement of traffic laws. In the existing situation **it is suggested to adopt 'Restrictive Approach' to help improve the current problems**, and management capability and efficiency. Introducing new roads and widening the existing structures could lessen to a certain degree, the currently encountered traffic problems. But, without improvement on traffic management system the inherent problems will not be mitigated.
 - ❑ With regard to road network development, DOR should be made the sole responsible agency to work in close coordination with DUDBC and municipalities where expansion of network programs links with their peripheral jurisdiction. If the development program falls **within the periphery of the single municipal area the concerned municipality should be the main agency to undertake such activity.**
 - ❑ DOR, DOTM, TP and KMC to a certain degree are involved in traffic and transport management. **Overlapping of functions and ineffective coordination in various phases** of policy formulation and implementation of development activities are deep seated. Practical corrective measures including delineation of functions to avoid sharing the responsibility by a number of authorities

are essential. To attain this, function could be regrouped and delegated to other agencies through legislative procedures. To avoid conflicting interests, an independent body comprising experts in related fields or an international agency should be engaged to review the matter and make appropriate recommendations including the proposal for manpower requirement

- ❑ The other important aspect is financing. The current situation indicates that **major development activities are dependent on foreign assistance.** Although the Local Government Act 1999 provides some access to revenue generation and the proposed Nepal Road Board Act provides some relief in financing road maintenance program, to make the municipality a self-sustained institution, capacity should be built up for generating additional funds through increased road user's tax and private participation. And to realize better results from the country's scarce resources, **funding should be determined on a 'need' basis.**

2.4.4 Progress Indicators:

1. Construction of major road networks and initiation of maintenance programs throughout KMC.
2. KMC-PWD section is strengthened with pilot projects initiated at KMC level.
3. Average speed of vehicles is increased in the KMC area.
4. Mass transport system gets priority.
5. KMC starts a process of increasing revenues from vehicles for road maintenance.
6. A co-ordination committee to improve transport management is formed with adequate representation from concerned sectors.

TABLE: A

Table A: Development Activities (Short Term)

TARGET	INSTITUTIONAL DEVELOPMENT	TRAFFIC MANAGEMENT		PUBLIC TRANSPORT	ROAD DEVELOPMENT
		Legal/Administrative Measure	Facility Improvement		
<ul style="list-style-type: none"> ❑ Improvement of bottlenecks in urban transport 	<ul style="list-style-type: none"> ❑ Strengthening of KMC Organization structure following the ownership of road network. ❑ Strengthening of Department of Transport Management (DOTM) ❑ Improvement of Department of Road (DOR) Planning Division ❑ Strengthening of TP traffic engineering section 	<ul style="list-style-type: none"> ❑ Functional classification of road network. ❑ Enforcement of rules and regulations. ❑ Transfer of ownership of Urban road network ❑ Regulations on heavy vehicle operation in Urban areas. 	<ul style="list-style-type: none"> ❑ Control on roadside parking ❑ Construction of parking spaces ❑ Control on roadside on-loading and off-loading ❑ Improvement of intersection facilities ❑ Control on illegal activities on right-of-way (workshop road-side stall, hawkker, etc.) ❑ Improvement of facilities at bus terminal/ bus stops (bus bay, shelter sign) ❑ Improvement of pedestrian stream (crossing point, fence between carriage way and pedestrian walk, pelican crossing) 	<ul style="list-style-type: none"> ❑ Operation of fleet number and frequency (bus, mini-bus) ❑ Integration of bus stops/ bus service routes and coordination among companies ❑ Route regulation for slow moving vehicles- three-wheelers etc. 	<ul style="list-style-type: none"> ❑ Construction of north-south corridor - Bisnumati link road to relieve congestion in core city area. ❑ Improvement/ construction of road network in vital places ❑ Conduct feasibility study in the light of previous studies.

TABLE: B

Table B: Development Activities (Long - Term)

TARGET	TRANSPORT DEVELOPMENT	PUBLIC TRANSPORT	ROAD DEVELOPMENT
<ul style="list-style-type: none"> ❑ Establishment of well balanced transport system 	<ul style="list-style-type: none"> ❑ Study and promotion of various transport modes 	<ul style="list-style-type: none"> ❑ Introduction of exclusive bus lanes. ❑ Introduction of mass transportation. ❑ Introduction of separate lanes for slow moving vehicles. 	<ul style="list-style-type: none"> ❑ Linkage among potential development places in the light of new Ring Road Concept ❑ Introduction of linkages with Ring Road and central area ❑ Improvement of radial roads

2.5 HOUSING

2.5.1 Existing Situation of KMC

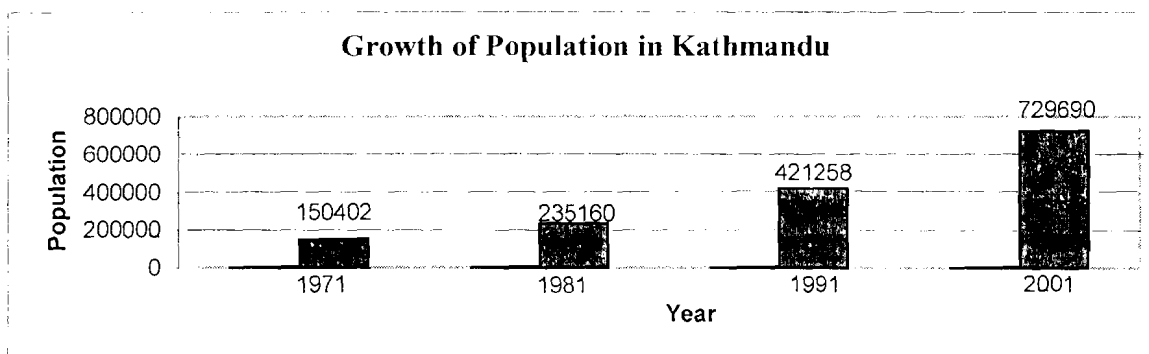
Housing in Kathmandu, like in most cities of the world, is seen as a most valuable asset and a significant investment. Housing process in Kathmandu generally starts with land plotting with an access, transaction of plots, house construction followed by infrastructure provision, unlike in other countries where land development process with provision of network infrastructure precedes the construction of houses. **Land development process is dominated by brokers in Kathmandu.** It is due to limited land development initiatives undertaken by the government, which primarily caters to government employees and does not respond to the needs of growing urban population. Formal private sector initiatives are rare due to fragmented private land ownership at large and difficulty in land acquisition.

Private owner builders largely contribute to housing production in the city. **Therefore, it is private owner occupied housing system which is predominant in Kathmandu followed by rental housing sub-system supplied primarily by individual owner builders with few exceptions of apartment housing recently supplied by private developers.** Supply of apartment housing is expected to increase after promulgation of the Apartment Act in 1997. Approximately 30 percent of the city's households are living in rental accommodation.

that there will be a need of at least 34,000 additional housing units by the year 2001. As there is a continuous influx of low-income migrants to the city, there are problems for them to find affordable accommodation in Kathmandu. Consequently, they are accommodating themselves in shared or individual rooms in the slums of inner city areas at cheaper rents. Illegal encroachment on unattended public land and buildings has become an alternative for some and threats are seen for unused private lands in the future as statistics show their number increasing every year. There are approximately 2000 squatter families settled at 56 settlements at various locations in Kathmandu.

Cost of land and housing in Kathmandu has become increasingly unaffordable due to shortage of planned and developed land plots. In the present context, **a nominal standard of 35 square meter house in an 80 square meter plot costs about Rs. 950,000.00 in Kathmandu** in which land and development alone constitutes nearly 80 percent of the cost. Unless significant roles are played by government and private sectors in large land assembly and planned development of plots, with increasing economic development, housing affordability will remain unchanged. In this regard, housing finance could also contribute towards increasing the supply of land plots and housing units. **However, formal housing finance at present is within the reach of only a fraction of the urban households.** Individual mortgage systems, high interest rates and short payback periods are unfavorable to poor urban households.

Chart 2: Growth of Population in Kathmandu



Housing stock in Kathmandu was estimated to be 53,311 units whereas the deficit was estimated at 10,942 units in 1991. Observing the trends of population increase, new household formation, and a trend of housing supply in response to it, it is estimated

Consequently, community savings and credit initiatives have become increasingly popular among urban poor communities and such schemes have the potential to promote co-operative housing finances with the support of other local institutions.

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Table 14: Income Distribution of Households of Kathmandu

Income Quintile	Monthly Average HH Income	Mean Consumption income (Rs/capita per annum)	% of Kathmandu population	Estimated income range
1	1,114	2,571	0	< 3300
2	1,686	3,893	0.2	3300 - 4500
3	2,228	5,142	3.3	4500 - 6200
4	3,097	7,147	6.7	6200 - 8500
5	6,605	15,243	89.8	> 8500

Source: WaterAid, Lamantti and NEWAH, 2000.

As housing is considered an important sector of the city's economic development, the national policies and plans have stressed to increase the production of dwelling units, maintain and improve existing stock, as well as mobilize and allocate financial resources both for production and maintenance of dwelling units. **Development of densified residential areas in the city is of primary concern, however obsolete master plan and absence of a land use plan have led to haphazard and scattered low-density residential development.**

2.5.2 Issues of Housing in Kathmandu

The current housing situation in Kathmandu leads to the identification of issues, which need to be addressed for immediate relief such as management of squatters and slums and in the long run, for the efficient operation of housing markets including housing finances.

Issues related to serviced land plots

1. Cadastral records are not updated according to land use change and land use maps are not being indicative, which results in difficulty in **land acquisition for planned development of plots, difficulty in regulating subdivision control and difficulty in assessing appropriate valuation of land.**
2. **Haphazard subdivision of land plots** without adequate infrastructure services due to absence of effective mechanisms to regulate and govern land subdivision.

3. Limited public sector land development programs and **housing plots becoming increasingly unaffordable** which are not responding to the increasing demands of majority of urban middle and low-income households.

Issues related to Institutions, Legislation and Regulation

4. Lack of institutional capacities and **absence of clear-cut responsibilities** among institutions within KMC and outside institutions due to which there are duplication of roles (land development, monitoring) and lack of accountability of institutions resulting in weaker enforcement of law and regulations.
5. Lack of adequate laws and regulations (no laws for housing cooperatives, building codes, building standards) and **existing standards are inappropriate** for the benefit of urban poor families.

Issues related to Housing Construction Technology

6. Lack of research in developing low cost technology for innovative and efficient infrastructures, building construction and housing processes and **lack of fiscal incentives for promotion of low cost housing technology.**

Issues related to Housing Finance

7. Limited formal housing finance institutions operating in the city and policies are unfavorable to majority of lower income families. Majority of loans available are for purposes other than housing

Table 15: Building Permits for Residential Uses in Kathmandu City

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
Building Permits Issued	-	2500*	2500*	-	5107	4203	3230	2715	2060	2272	2500*	27,087

Source: Urban Development Department, KMC, number with * is assumed.

Table 16: Housing Affordability, 2000

Particulars	Standards	Cost in Nrs.	Unit	Remarks
Land	80	625,000.00	m ²	@ Rs. 4,000,000 per Ropani (509 m ²)
Infrastructures	Minimum basic	96,000.00		Rs. 1,200 per net m ² of land.
•	Roads and drainage			
•	Water			
•	Electricity			
•	Solid Waste			
•	Sewer			
Shelter	35	210,000.00	m ²	@ Rs. 6,000 per m ²
Total		931,000.00		

development and lack of fiscal incentives to financial institutions to invest in mass social housing.

Issues related to Slums and Squatter Settlements

8. Lack of infrastructure services and substandard rooms in rented slums in inner city areas.
9. Growing squatters and continued **unauthorized occupancy of public land** and buildings due to absence of clear cut policies regarding urban squatters.
10. Lack of tenure security due to illegal occupation which is affecting social, physical, economic as well as human development in squatter settlements.

2.5.3 Strategies

1. Development of Land-use Information System

- Update both public and private land holding records and cadastral maps
- **Preparation of land use maps as per land use change and urban land classification** such as commercial, residential, mixed, institutional etc.

2. Preparation of land use plan with appropriate zoning and subdivision regulation

- Develop appropriate standards for land subdivision and infrastructure service provisions (Trunk infrastructure planning)
- Promotion of compatible land uses (mixed commercial and residential)
- Publication of land use plans and implementation, enforcement of regulation

3. Increase supply of affordable housing plots meeting the demands of various income groups particularly middle and low-income households through regulated housing schemes

- Use of under-utilized open space judiciously for residential purposes
- Promote **public private partnership ventures for land development** programmes (land pooling, readjustment, sites and services)
- Encourage cross subsidy for the benefit of low-income groups in land development programs through provision of and allocation of certain percentage of land plots to LIGs with reduced and affordable plot sizes)

Table 17: Growth in Squatter Settlements in Kathmandu

Year	No of Settlements	No. of Households	Population	Remarks
1985	17	-	2,134	
1988	24	348	3,665	
1990	19	859	4,295	
1992	33	1,271	6,355	
1996	47	1,783	8,927	
1998	49	2,021	10,323	
2000	61	2,031	11,862	Includes settlements of adjacent VDCs

Sources: Joshi and Bjoness; 1987, Concerned Citizens Group, Kathmandu Squatter Site Survey; 1990, Flatheim and Skjorestad; 1993, Kishore Thapa; 1994, Tamaka; 1997, and Lamani; 2000.

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- ❑ Incentives to developers for the provision of land plots to LIGs through subsidization in development permit charges/fees
- ❑ Promotion of readymade apartment units and rental housing units through development of effective tools such as service fee discount/property tax subsidy for such housing development
- ❑ Improvement and upgradation of existing housing stock
- ❑ Promotion of dwelling units for floating population such as dormitories, rooms for short term bed and cooking facilities
- ❑ Encourage employees housing facilities, promotion of service quarters at private residential buildings for service providers (maids, housekeepers)

4. Strengthen institutional and management capabilities of KMC (UDD) and redefine its roles

- ❑ Development of human resources (training of UDD staff technically) to undertake urban development and management works)
- ❑ **Monitoring of building permits** issued to ensure compliance with regulation, update and maintain records of building construction as per completion certificates issued and types of building usage for sound tax base
- ❑ Imposition of **penalty for non-compliance** with regulation

5. Review of urban land policy, land based taxes for urban use, review of cadastral laws.

- ❑ Formulate adequate laws/acts regarding housing cooperatives for poor households to get access to adequate housing.
- ❑ Private institutions, NGOs and community groups to take initiatives for resource tapping and mobilization
- ❑ Revision and **reformation of old building bye-laws**, codes and standards for appropriate present use and future requirements
- ❑ Formulation of land pooling act, land subdivision regulation, real estate act and supporting regulations.
- ❑ Adoption of area specific codes to **maintain heritage homes** (use of TDR)
- ❑ Reduction of standards for lower income households (reduction of plot sizes, FAR) to suit their affordability.

6. Development of research on low-cost housing technology

- ❑ Provision of **incentives to researchers and professionals** for development of low-cost construction technology

- ❑ Strengthen national building research institution through improved resources and collaboration with other research institutions
- ❑ Promotion of pilot projects for demonstrations and their publications
- ❑ Provision of fiscal incentives on marketing of local technology
- ❑ Information dissemination on technology through publication of manuals, holding seminars, workshops and exhibitions.
- ❑ Publication of prototype designs, plans for housing catering to lower and middle income groups by KMC and subsidization on service charges / building permit fees.

7. Encourage more housing finance institutions to operate in the city

- ❑ Encourage banks, finance companies to **invest in housing development** by bringing in favorable policies (tax incentives to institutions for investments in social housing)
- ❑ Promotion of effective mobilization of financial resources (attractive schemes to tap household savings)
- ❑ NHDFC's activities need to expand to reach LIGs
- ❑ Improve existing housing finance mechanisms (increase mortgage loans, introduce collective mortgages, community collateral for low-income societies, cross subsidization of loans for LIGs, and loans to be made available to purchase land, improve existing house incrementally, and new construction)
- ❑ Development of community savings into housing finance co-operatives to operate at community levels (matching funds by donors)
- ❑ Develop mechanisms for provision of loans to buy land plots, house improvements, and new house constructions.

8. Institute minimum service standards (water, sewers, garbage disposal) for rental housing units

- ❑ Institute minimum service standards, formulation and enactment of slum act
- ❑ Standards to ensure fire and structural safety

9. Control and prevention of new squatters and management of existing squatters through

- ❑ Enforcement of land use control measures, effective monitoring of public/private land uses
- ❑ Protection of public/private unused land and buildings and plan for appropriate uses
- ❑ Social housing mechanisms for old, deprived, poor and disadvantaged groups of citizens

- ❑ Management of existing squatters (as of January 2001) for the protection of their housing rights on the basis of cases of settlements (types, location, density, solidarity of communities) and legalization of settlements (relocation and resettlement, upgrading of existing sites with regularization based on typology of each settlement wherever applicable)
- ❑ Formulation and **implementation of settlement improvement programmes** in suitable sites to improve quality of houses and infrastructure
- ❑ Ensure community participation for effective implementation of programmes and future replication
- ❑ Formulation of slum act to institute minimum service standards, and standards for structural and fire safety.

10. Provision of granting security of tenure on the basis of non-transferable collective ownership, leaseholds

- ❑ Provision of granting tenure security (the types of tenure to be worked out in detail during the period of implementing action programmes in close co-ordination with KMC, Federation of squatters and NGOs)

- ❑ Provision of **temporary security to stay for squatters** before finding other alternatives

2.5.4 Progress Indicators:

1. Building bye-laws are revised to adopt building codes, area specific regulations such as heritage zones, flood prone areas etc.
2. Land use maps with zoning regulation prepared, published and implemented.
3. Land and housing development programs are initiated with private sector participation.
4. New land and housing development projects are initiated.
5. Investments in social housing (housing for elderly, women's welfare etc.) are initiated.
6. Demonstration of low-cost housing in KMC area for poor people.
7. Improved urban land policy and property taxation system is initiated.
8. Demarcation of public land for protection from encroachments.
9. A clear-cut squatter policy is adopted.
10. Regularization, resettlement schemes as pilot project are carried out.

2.6 MUNICIPAL SERVICES

2.6.1 Existing Situation

Institutional capability of KMC for urban management and planning is manifested by technically weak, incompetent organizational structure and deficiency of qualified manpower. There is inadequacy of legislation dealing with the key municipal service problems. The Government policy, rules and regulation are insufficient to cope with the problems. The financial status of the municipality is dependent on the Central Government, leading to a weakness in institutional capability. **KMC is unable to collect enough taxes, and the gaps between revenue and expenses are the present constraints.** There is an absence of standard regulations and legally enforceable building and sanitation codes.

Most roads in the Kathmandu City are in poor condition. Major secondary roads are full of mud in the core city due to drainage problems, poor engineering practices and lack of maintenance. Limitless potholes are evident which hold water and further weaken the road's base course pavement. The traffic control junctions contribute to inefficient use of the available road space. It seems that there is no traffic regulation and traffic is out of control in the city road junctions. Considering the vehicle growth rate in the city and the increasing traffic congestion, there is a growing demand for additional new road links to urban areas and expansion of the existing road width. Maintenance of roads is generally the responsibility of the Department of Roads (DoR). However, the **DoR has a number of conflicting priorities with regard to the allocation of resources.**

The quantity of **drinking water supply in Kathmandu is insufficient** due to inadequate source and high percentage of leakage that corresponds to 32.3% and 30.5% of total supply during wet and dry seasons respectively. To resolve conflicts with different water users, there is a lack of specific administrative authority with appropriate mechanism. Limited supplies and poor quality of water are causing unsanitary situation in most of the households and are largely affecting personal hygiene. The static groundwater level in the well field has declined due to the large scale of water abstraction from the ground. The water level has fallen between 6 & 15 meters in the past years in the Manohara, Gokarna and Bansbari well fields. The shallow groundwater in urban areas is heavily polluted, both chemically and biologically.

There are duplications of jurisdiction and functions among the Ministry of Industry, NWSC, DDC and Municipalities regarding sewage management. Due to lack of mitigation measures industrial effluents and sewerage has increased the pollution load to an unsatisfactory level. The catchment of **Kathmandu Metropolitan City is without a proper sewage collection system** and most of the drainage is not following the natural topography in the core city area. Few people understand the difference between surface drains and foul sewers and connect their toilets to the nearest and most convenient source.

Solid waste management of Kathmandu Metropolitan City is becoming complex largely due to the emerging notion of "WAR on WASTE". Kathmandu Metropolitan City generates on an average 310 tons of solid waste per day which comprise of organic waste (57 %), inorganic material (35 %) and the rest (8%). **No special arrangements are made for proper treatment and disposal of hazardous wastes, including hospital waste.** The solid waste management policy has not clearly mentioned whether to manage domestic waste only or to include hazardous wastes coming out from hospitals, industries etc. Moreover, the policy does not specify incentive programs for those promoting waste recycling. The jurisdiction and empowerment are inconsistent and in conflict with the act controlled by (i) Municipalities Act, (ii) NWSC Act and (iii) SWMRM Act. **The controlled sanitary landfill site for final disposal of solid waste is not yet in operation and there is no indication of operation in near future as the site is still being sought.**

Approximately, 100% of the population in the Kathmandu Metropolitan City has access to electricity supply. The current number of consumers of different categories in the Kathmandu is 132,826 domestic, 426 commercial, 2,284 industrial, all of which are metered. **Demand has been growing at an average rate of 10% per annum over the past 5 years in the KMC.** Systems are predominantly overhead and local substations (11 kV/400 V) are normally pole mounted in the dense urban areas.. Major efforts are still lacking to improve the level of street lighting in urban areas of Kathmandu. **Normally accepted standards of illumination are not achieved in the majority of streets.** Street lighting in the municipality is the responsibility of the metropolitan city but it appears to do little in this field and NEA has installed lighting on the major roads of KMC.

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Park/garden facility is available within 500 m catchment zone of metropolitan city in wards 1, 4, 11, 16, 19, 20, 21, 22, 24, 25, 27, 30, 31 and 32 only. **Traders and street hawker occupy most of the available open spaces where public relaxation, gatherings are supposed to take place.** The wards 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 26, 28, 29, 34 and 35 have no access to park and garden facility, as there is no land available for garden and parks. None of the government agencies have interests in garden and park development in the city. Kathmandu Metropolitan City is responsible for maintaining parks and other recreation spaces, and has undertaken some greening process in certain areas such as Thapathali, Mathighar, Minbhawan, Airport, Teku, Gaushala, Kalimati, Bagbazar, Jamal, Kingsway, Jawalakhel, Chabahil, Ratnapark, Tinkune, Maharajgunj etc.

2.6.2 Issues on Municipal Services

2.6.2.1 Institutional Capability

- ❑ **Too many agencies** involved in infrastructure and urban development with **differing laws and jurisdictions.**
- ❑ KMC's capacity to exercise direct tax collection within its boundary is weak.

- ❑ The KMC is **unable to handle entire municipal services** due to lack of experienced manpower and competent organizational structures.
- ❑ There is weak institutional arrangement to carry out urban development and monitoring process at the local level.
- ❑ No specific agencies to determine standards, reinforcement or monitoring system related to municipal services.

2.6.2.2 Road network

- ❑ High numbers of potholes with accumulated water on the roads are damaging base course of the road pavement.
- ❑ The combination of potholes and deformed road pavements is accelerating accidents in the city.
- ❑ It seems there is absence of traffic regulation or tends to be out of control in the city road junctions.
- ❑ Present traffic congestion demands widening of the existing roads in urban area.
- ❑ **Absence of long-term vision** on city road expansion, keeping in view the increased traffic volume.
- ❑ The KMC has no experienced manpower to handle entire road works of KMC's future activities.
- ❑ Most of the road works are completed by labour force.

Table 18: Traffic flow in the major roads of KMC

S.No	Routes	Bus	Minibus	Trolley	Safa Queue Tempo	Total
1	Kirtipur - Ratnapark	2533	7933	0	288	10754
2	Dakshinkali - Ratnapark	1420	2791	0	168	4379
3	Ratnapark - Baudha - Jorpati - Thali	7860	6748	0	378	14986
4	Ratnapark - Airport - Maharajgunj - Gongabu	4978	4274	0	189	9441
5	Ratnapark - Chabahil - Sundharjial	3816	3425	0	0	7241
6	Ratnapark - Purano Baneswor - Chabahil	8122	6973	0	528	15623
7	Ratnapark - Jorpati Sankhu	3516	2409	0	0	5925
8	Lagankhel - Ratnapark	10666	8450	0	1404	20520
9	Patandhoka - Ratnapark	12745	0	0	1350	14095
11	Narayanthan - Maharajgunj - Ratnapark	649	4397	0	624	5670
13	Bhaktapur - Koteswar - Ratnapark	20050	24849	0	18	44917
14	Bhaktapur - Koteswar - Tripureswar	4763	1410	11349	0	17522
15	Bhaktapur - Koteswar - Lagankhel	0	6915	0	24	6939
16	Bhaktapur - Puranobato - Ratnapark	19309	28388	0	0	47697
17	Thankot - Sahidgate	1379	6699	0	486	8564
18	Lagankhel - Koteswar - Gongabu	0	5598	0	0	5598
19	Ratnapark - Balaju	0	6258	0	1392	7650
	Total	89061	127517	11349	6849	234776

Note: Taxi and Electric bus are not included.

2.6.2.3 Water Resources and Supply

- ❑ Drinking water supply in KMC is insufficient and **the quality does not conform to WHO standard.**
- ❑ Drinking water distribution pipelines are very old and sewerage lines are located nearby.
- ❑ More than **30% of water is lost through leakage** due to the lack of controlling mechanism.
- ❑ Large quantities of water are consumed in the industries located within KMC and their consumption is not regulated.
- ❑ Riverbed levels are falling down due to regular sand removal.
- ❑ Groundwater abstraction is exceeding safe yield thresholds due to low ground water replenishment.

Table 19: Water Availability

Supply Condition	Available to % of NWSC Consumers		
		Wet season	Dry Season
Good	19%	6 - 24 hrs	4 - 24 hrs
Sufficient	15%	6 - 8 hrs	4 - 6 hrs
Poor	49%	3 - 4 hrs	1 - 2 hrs
No water	15%	0.5 - 1 hrs	0 - 0.5 hrs
No response	3%		

Source - Consumer Survey, SILT and DRTC, 1997

2.6.2.4 Drainage and sewerage

- ❑ Drainage of the core city area is frequently blocked due to siltation and solid waste disposal.
- ❑ The existing legal enforcement is not being actively applied either by the municipality or NWSC.
- ❑ Most of the sludge is disposed into the river, due to non-functioning of sewerage treatment plant.
- ❑ Most of the chamber and branch connections are overflowing in the city core area due to lack of proper maintenance and timely cleaning.

Table 20: Efficiency of Sewerage

Months	Seasonal Factor	Months	Seasonal Factor
January	76%	July	100%
February	79%	August	99%
March	87%	September	98%
April	93%	October	92%
May	97%	November	84%
June	99%	December	78%

- ❑ Lack of timely cleaning and regular maintenance of city drainage in the core area has resulted in serious blockage of drains.
- ❑ Due to **unbalanced size of storms pipes in the city core area**, frequent flooding occurs even during minor storms in the major urban areas.

2.6.2.5 Solid Waste Management

- ❑ Disputes in solid waste management activities between SWM&RMC and KMC has resulted in wastes being dumped on the roads and riverbanks.
- ❑ Landfill site is still being sought.
- ❑ There is **no definite objective and long term vision** on KMC's solid waste management.
- ❑ **Although 70% of waste is biodegradable, no organization has yet initiated its utilization.**
- ❑ Around 35% of recyclable wastes are disposed haphazardly on the streets.
- ❑ Due to lack of motivation, enforcement and weak management of the municipality, around 900 sweepers of KMC fail to collect the daily wastes from the streets.
- ❑ The existing policy does not clearly mention incentive activities for the recycling of waste.

- ❑ 52% of waste is disposed directly onto the streets,
- ❑ 22% of waste is disposed at the KMC container or in the tractor,
- ❑ 4% organic waste is being made into compost in the household,
- ❑ 8% of waste is collected by door to door services,
- ❑ 5% of recyclable waste is sold directly from the sources, and
- ❑ 10 % of remaining waste disposal is unknown.

2.6.2.6 Electricity; streetlight

- ❑ Streetlighting is the responsibility of KMC but it appears to do little in this field.
- ❑ Legislations and policies for streetlight handling by the stakeholders do not exist.
- ❑ Industries and institutions require large quantity of electricity that is provided at the cost of household supplies.
- ❑ There is no long-term vision on electricity distribution within Kathmandu Municipality.
- ❑ **Kathmandu as a Metropolitan City has not yet been able to provide uniform electricity supply and adequate streetlight in the major streets.**

2.6.2.7 City Greening

- ❑ **Traders and street hawkers have occupied the open spaces designated for public parks.**
- ❑ The land around growing urban centers is deficient in public recreation spaces.
- ❑ Most of the Guthi lands within KMC are unproductive.
- ❑ **KMC does not have overall policy on city greening.**
- ❑ Along the ring road, green belts are presently used as parking place for Buses and Trucks.
- ❑ The entrepreneurs are not investing in park and gardening business.
- ❑ The codes of standard and legal provision are overlooked for greenery in building permits issued by the municipality.

2.6.3 Strategies

2.6.3.1 Municipal Institutional Capability

- ❑ To avoid overlaps, clarify jurisdictions with other agencies involved in urban development.
- ❑ In close co-ordination with the Ministry of Finance and M.L.D, formulate legislation and enforcement mechanism for **more effective tax collection within municipality boundary.**
- ❑ For better urban development in KMC, the Central government, INGOs and concerned agencies should help to enhance KMC's institutional capability.
- ❑ Institutional strengthening at the local level is a prerequisite for effective urban management. Therefore, stakeholders and communities should be involved during formulation of policy, programs and monitoring process.
- ❑ **Determine the set of standards, enforcement and monitoring system related to municipal services.**

2.6.3.2 Roads Network

- ❑ Immediate repair of potholes to protect base course pavement of the road.
- ❑ Present condition of city roads requires entire resurfacing. The DoR should resurface category A, B and C roads respectively. The municipality through mobilization of local community and Stakeholders should maintain category D roads.

- ❑ Traffic regulation should be enforced strictly to make efficient use of the available road space.
- ❑ Expand the width of the road in the following streets since some space is available for expansion: a) Lainchour - Shourekhutteya, b) Ratnapark - Bagbazar and c) New Road-Pako area (confidence building pilot action plan).
- ❑ The DoR should **develop city road standards based on AASTHO or International standard** keeping in view local conditions and capacity.

2.6.3.3 Water Resources And Supply

- ❑ Establish treatment plants for surface sources at Bansbari and Mahankal Chaur which gives around 43 mld water.
- ❑ Replace all drinking water distribution pipelines which are very old and are closely located to sewerage lines.
- ❑ Establish a **leakage detection and controlling program** and install bulk metering facilities.
- ❑ Relocate industries and institutions which require large quantity of water outside the valley.
- ❑ Construct weirs along the width of the river at proper places to create setting pools of water and to arrest sand in the monsoon period. Deposited sand can be taken out prior to monsoon when the next load of sand is deposited.
- ❑ There are potential run-of-river Schemes with maintenance in Manohara, Kodku, Nakhu, Balkhu and Lambagar Khola respectively. All these sources have the reliability of supply for 4 to 6 months.

2.6.3.4 Drainage And Sewerage

- ❑ Municipality and NWSC should give **priority to cleaning of blocked drains and take legal action** against those who repeatedly create such problems.
- ❑ Rehabilitate Dhobighat, Kodku, Salleri and Hanumante sewerage plants to treat sewerage.
- ❑ Immediately clear blockage of sewers and undertake any associated improvements with local support in the following areas; Tukucha Khola, Samakhusi Khola, Ghattekulo - Dhobi Khola. J.P. High School Area, Tahachal, Kalimati - Kuleshwor - Ring Road, Kamal Pokhari - Tukucha Khola, Baneswor (old barracks)-Dhobi Khola, Sarkigaon Area-Naya Baneswor, Balaju - Ring Road - Bishnumati, Kapan Marga, Raniban (behind Shangrila Hotel).

CITY DEVELOPMENT STRATEGY

- Immediate cleaning of blocked drains and improvements should be done in the following areas; Tebahal-Sundhara-Khedhal, Battisputali, Anam Nagar, Bhatbhateni-Tukucha Khola, Maiju Bahal-Chabahil, Banski Jhyang (New Plaza), Bramha Tole, Thapathali Maternity Hospital-Bagmati, Maharajgunj-Tukucha Khola.

2.6.3.5 Solid Waste Management

- KMC and SWM&RMC should prepare and implement standard codes and practices on disposal of waste.
- Scientific treatment technology should be developed for final treatment of waste as it is difficult to obtain land for sanitary landfill operation in the present context due to opposition by local communities.
- Develop definite objectives for immediate, medium-term and long-term management of solid waste jointly with MLD, SWM&RMC and KMC.
- **Out of the 310 tons/day of solid waste, 210 tons are organic; composting is the feasible option which KMC should initiate with private sector immediately.**
- Reuse and recycle non-biodegradable waste material (around 90 tons/day) through private sector participation.
- The existing policy should be amended and incentive activities for local community and stakeholders for recycling of waste should be promoted.
- Route optimization technique should be applied by the municipality to avoid overlap movement of skips for collection of waste.
- Teku transfer station should be maintained and operated immediately to avoid double handling of waste for unloading and reloading of waste in the window yards towards landfill site.

2.6.3.6 Electricity; Streetlighting

- Municipality to contribute one-third of capital cost and pay future electricity charges by involvement of stakeholders. NEA to introduce innovative streetlight schemes with proper planning, design & installation, sharing two-thirds of capital cost.
- Encourage stakeholders or local community for operation and maintenance of streetlights and KMC to formulate legalization policies for street lighting and handling by the stakeholders.

- **KMC should buy bulk quantity of electricity from government for municipality and initiate comprehensive electricity supply schemes at effective cost price.**
- KMC should develop the capability over the long-term to handle entire electricity management, distribution, repair and maintenance within Kathmandu Metropolitan boundary.

2.6.3.7 City Greening

- The occupied open spaces by traders and squatters should be properly managed immediately.
- Further promotion and development of city greening is to be carried out, which KMC is presently initiating with stakeholder and entrepreneur involvement.
- **Encourage development of privately operated recreation parks on Guthi and private lands.**
- Greening programs to be launched along the Green Belt of the ring road with active participation of KMC and DoR, with local communities or stakeholders as caretakers.
- The FNCCI should encourage business groups for promoting parks and garden in the cities, which may be a good business for them.
- In building codes and standards, legal provisions should be incorporated in the act to set aside a limited space of land as green space in all newly built houses.

2.6.4 Progress Indicators:

1. Road widening schemes that have already been planned, are implemented.
2. Sand trapping check-dams are constructed in strategic locations, specially near the bridges.
3. Drainage improvement programs in selected wards are initiated.
4. Solid waste management through recycling process is initiated with the private company taking the responsibilities.
5. Streetlights are operated and the costs are generated from the public.
6. Public recreational areas are developed in KMC area.
7. Along the ring road, at least some segment of the greenbelt is maintained and a system to replicate the same is developed for future.

2.7 HERITAGE

2.7.1 Existing Situation:

KMC hosts a significant portion of the world famous built heritage of Kathmandu valley (KV) along with four of the seven monuments zones constituting the KV World Heritage Site (KVVHS) including its core, the Kathmandu Durbar Square. Monuments and sites of international, national, local and clan importance such as palace, temples, Chaityas and Bahals, edifices of community service importance such as patis, sattals and hitis and even un-built sites such as piths form part of the physical heritage. The seasonal festivals, rituals and cultural processes, with artifacts and spaces such as chowks and lachchhis as well as the streets that provide the forum and breathe life into the built heritage, are also as important as the tradition of conservation ingrained in the Guthi system itself. Further, with handicrafts and associated family skills, costumes, traditional food and culinary skills, and the like, all make a complex set of tangible and intangible heritage of relevance to the well being of the people as well. **KMC derives its image out of this profuse collection of cultural heritage.**

The changing aesthetic and cultural taste of the Rana period aristocracy was brought home to the general population ironically by the reconstruction following the great earthquake of 1934 and the consequent move to 'modernity' was further fueled by the strong cultural stresses that accompanied the changes of 1950. This trend continues unabated, much to the detriment of the heritage of KMC. While, at the community level, the loss of heritage was hastened by the breakdown of the Guthi system, at the family level, loss has also resulted from intrusion of alien cultural practices, breakdown of traditional extended family and the traditional practice of dividing land among heirs. **The pressures of development have engulfed many heritage sites under the foundations of new constructions.** Heritage spaces are encroached commonly and many have been lost already. Streets and spaces have been slowly clad in an unpleasant cloak of modernity. At the same time, the festivals and rituals are vanishing or truncated beyond recognition and many monasteries and temples have lost their religious function. The traditional skill is lost by the day as the traditional professions lose social preference.

However, blessed as the city is with so much of such heritage, and despite the cloak of modernity that has greatly lessened the quality of the heritage, much still

remains and pockets of heritage charm continue to embellish the core of KMC.

Although many plans of conservation and tourism development have been drawn in the past, only a few small actions have taken place. **The strategic actions and development guidance to protect heritage specificity of the core of Kathmandu, proposed as early as 1964, is still in its infancy in terms of application.** The first major conservation action in Nepal, the UNESCO/UNDP assisted Hanumandhoka Conservation Project, was started in 1972 in KMC. Apart from national and international attempts at conservation of KVVHS zones, over the last few years, some conservation/reconstruction attempts on a few of the outlying built heritage have been made. Some stone water conduits, patis and paved spaces have featured in such revival activities. In the latter case, despite the good intent, inappropriate approaches and techniques have led to loss of originality. There has been no attempt to strategically address the multi-faceted heritage with clear objective of augmenting livability of KMC.

The strongest challenge to the urban heritage of the valley stems from the economic developmental pressures and social changes associated with continuing urban expansion. The cultural heritage pockets, which also occupy strategic business locations from current economic perspectives, such as city center and main crossings, are engulfed by this basic change in urban formation.

Also the built heritage has been inventoried to some extent, such as through the Kathmandu Valley Inventory of 1975 and 'Kathamadaun Nagar Kshetrako Inventory, 2039. **No inventory of movable cultural property, archeological sites, festivals, rituals, heritage routes and open spaces, family associated cultural locations or surviving guthis** and their land has yet been compiled. The inventory reports are treated more as ends in themselves rather than inputs to conservation.

Recently, the public opinion and inclination towards conservation has greatly increased and positive attitude towards traditional culture and its practice is observed. Trends in loss of visual ambient environment of the heritage zones, such as caused by the construction of modern buildings without regard to material, form and height control may continue until a compromise between objective ends of conservation and developmental demands pertaining at such zones is not struck. **Recent experience shows that there is a growing trend**

towards the use of special facing bricks, Dachi-apa, and minimum carved frames for doors and windows in private building construction in the city core, a positive indicator of public respect for the built character of the heritage streets and spaces. Cultural artifacts have been an area of larger creative adaptations as exemplified by adaptations seen in pottery, dress, carpet, paper crafts and jewelry industries which have been remarkable.

Being the capital of Nepal and an inseparable and definitive part of Kathmandu Valley, KMC's envisioned future needs to recognize its historical and cultural character and its place as the capital city. The vision, therefore, is: **Kathmandu... A Capital with a Living Cultural Heritage**

The issues of culture and heritage for building up the City Development Strategy of Kathmandu Metropolis will, therefore, have three pronged policy objectives; (1) its conservation and preservation, (2) its deployment for financial sustainability through cultural heritage tourism and other creative uses and (3) augmenting its relevance for quality of life of its citizen amid the scenario of contemporary development.

2.7.2 Problems and Issues

Problems and issues on cultural heritage were discussed in the first stakeholder workshop. First and the foremost, **concern was expressed for conservation and preservation of heritage**. The problems of institutional coordination, lack of proper preparatory inventories, the failure of the institution of the Guthi, lack of proper understanding and awareness about the culture itself and development pressures were key reasons cited as being responsible for the currently poor status of conservation and preservation. The various issues raised may be broadly grouped in four headings and are listed below:

Conservation / Preservation of Heritage

(a) Non-compliance to building regulations by new constructions at the WHS, particularly at Hanumandhoka Palace Square and Boudda monument zones

- i. Issues of compromise between **development pressures and conservation needs** at WHS zones
- ii. Issues pertaining to **private buildings envelop in heritage sites**

- iii. Issues of planning strategies to **relieve heritage areas of development pressures** - counter polarity development / etc.
- iv. Issues relating to **offsetting development rights at heritage sites** and appropriate reimbursement
- v. **Issues of pedestrianization**

(b) Lack of co-ordination between various agencies involved in the conservation of religious and cultural heritage.

- vi. Issues of management of conservation or sharing responsibility of conservation / preservation between Department of Archaeology and Guthi Corporation.
- vii. Issues related to **lack of community participation** in heritage conservation

(c) Lack of sufficient investments in conservation

- viii. Issues of conservation of the Guthi system (Resurrecting private / community Guthis)
- ix. The **drying out of traditional resources** for conservation such as Guthi funds and land and lack of efforts to mobilize contemporary resources (Detailing NGO / CBO participation, **involving tourism industry in conservation**, etc.) to meet the gap

(d) Lack of local awareness and appreciation of maintaining heritage ambience

- x. Issues related to **limited interpretation of built heritage** (smarak or murta sampada) alone as heritage
- xi. Issues related to **conservation of intangibles** (amurta sampada)- such as festivals, rituals, language, music, songs, bhajans etc.
- xii. Issues relating to conservation of dhunge dhara (recessed pit stone water conduits) and their sources.
- xiii. Lack of study and **research on heritage** and its importance - lack of appropriate educational and awareness campaigns
- xiv. Lack of involvement in conservation and **reduced traditional cultural practice of the younger generation**

(e) Lack of inventory

- xv. Need of intensive investigation of historical and archaeological heritage and their identification
- xvi. Need to **consolidate various inventories** and making it available in user friendly format
- xvii. Need to make **inventory of intangibles** such as festivals, bhajans, rituals, etc

(f) Dying traditional skills

- xviii. **Lack of sufficient skilled workers** to undertake conservation

- xix. **Loss of 'originality'** in conservation/reconstruction works undertaken locally due to lack of appropriate knowledge and skill

Heritage as a Resource for Capitalization (Heritage Based Tourism)

(g) Visitor Entry Fee

- xx. **Uncoordinated application of Visitor entry fees**
 xxi. Undefined state of who has the authority to collect fees or what responsibility is associated.
 xxii. **No direct contribution of heritage dependent industries** or institutions such as hotels, restaurants, handicrafts shops, travel agencies, cultural performance centers, money exchange, etc. towards heritage conservation and management costs

(h) Tourism based Employment

- xxiii. **No data on Heritage Tourism** as an employer / employment generator for the city residents
 xxiv. No direct benefit to the immediate 'community'
 xxv. Lack of city based museums

(i) Expenditure of heritage revenue

- xxvi. **Lack of clarity in use of heritage revenue**
 xxvii. Need to spend resources on
 a. Conservation and **preservation of physical heritage** (monuments and sites, routes of heritage, river side heritage, etc.)
 b. Support for preservation of festivals, rituals, music, songs etc.
 c. Enabling actions (for earnings and employment) e.g. training, marketing, promotion, public education

Image of the Town

(j) A city with a living Cultural Heritage

- xxviii. Need to conserve heritage buildings and other tangibles
 xxix. Need to conserve character of heritage areas such as streets and squares
 xxx. Need to fully **regenerate and conserve cultural activities** such as festivals, rituals etc.
 xxxi. Need to rehabilitate and use traditional urban services such as Dhara, khyos, Patis and Sattals

(k) Modern city with living Cultural Heritage

- xxxii. Policy for **private heritage buildings**
 xxxiii. Policy of city core and **Development right reimbursement**
 xxxiv. Policy for new development areas

- xxxv. Policies for public development works
 xxxvi. Policies of planning

Heritage / Culture as an Environment for Living of the People

- xxxvii. Heritage for the continued well being of the people, increasing awareness towards heritage
 xxxviii. Assisting deliberately in cultural transformations and practice of culture
 xxxix. Augmenting Citizen value of Heritage
 xl. **Community participation in conservation**
 xli. **Arresting further loss of heritage to private development**

2.7.3 Challenges and Possibilities:

Loss of cultural heritage in Kathmandu valley may be ascribed to three basic reasons - (a) pressures of development, (b) loss of cultural practice in the parent group and lack of understanding of its importance and relevance by the traditional inhabitants and the in-migrants alike, and (c) loss of traditional sources of funding and institutional set up or the Guthi. The key challenge to KMC's strategic vision of transforming itself into a "Capital with a Living Cultural Heritage" would be the continuing development and population pressures that the growing capital city would have to sustain for the immediate future and also on the medium range. In the long range, we may forecast that the unprecedented high growth rate of Kathmandu city may be slowed down to some extent, if the nation is able to sincerely affect a **decentralized governance and a dispersal of development and social services facilities**. But for two decades or more, Kathmandu city will have to absorb most of the in-migrants to the valley, with a small share going to Lalitpur and Kirtipur towns. In such a situation, **the successful heritage strategy must be aimed through careful application of planning options that would divert mercantile economic development to outside the heritage areas** of the core and wards nos. 4, 5, 6, 7 and 15. As the heritage areas are also physically the densest sections, conscious creation of economic development counter-poles is quite possible and feasible. Economic diversion would also potentially lengthen the building replacement period in the heritage sites.

Revitalization of the Guthi system as well as the cultural rejuvenation must of necessity be taken as a slow process.

CITY DEVELOPMENT STRATEGY

It has already been pointed out that KMC has suffered the worst loss of heritage as compared to other four towns in the valley. In terms of heritage environment and tourism potential, Kathmandu faces the strongest competition from Bhaktapur and also from Lalitpur. Kathmandu, however, enjoys comparative advantage from all the rest in that it has large pockets of wide diversity built heritage and also most of the tourism services are concentrated within its central part. With four monuments of KVWHS within the KMC, one with secular, one with Hindu and two with Buddhist religious association, as well as the river Ghats heritage from the most ancient to the most recent historical-cultural periods, it has truly diverse sites to offer. **It is also equally important that popular new sites such as Thamel and Jhochhen have no equals in the valley.** KMC could enhance this strategic advantage by further diversifying the attractions as also taking advantage of its cosmopolitan nature. For example, the Rana palaces, such as Keshar Mahal, can provide an entirely unexpected new attraction to the western tourist.

With the widely dispersed physical heritage, both movable and immovable, it is virtually impossible or unlikely that institutional approach and application alone will be able to bring about significantly better protection and conservation of heritage. Lack of community participation and their distancing from the heritage in the past are obvious bottlenecks for improvement to the situation. **However, in the past few years, one has been observing a growing positive attitude towards physical heritage and this could be capitalized as an opportunity of significant dimension for conservation.** Strategic nurturing of the nascent situation should be a conscious guiding principle for enduring conservation.

The most vexing problem at the monument zones listed in KVWHS or others of national and city importance is the incompatibility of privately built replacement structure with the heritage ambience of the site or buildings not conforming to 'building codes' in force in the areas. The main problem has remained the tendency to construct buildings taller than allowed by regulations, while the other façade controls like openings and exposed brick requirements are slowly being respected.

Although, the general blame for the situation has often been put on the private citizen and his lack of sensitiveness to heritage requirements, the situation is also a result of controls not properly satisfying the development needs of a changing society. Just as

heritage needs to be conserved, so also the residents living in the heritage area need to move with the times and enjoy their development rights.

Since, development potential and consequent right of economic exploitation is a complex function of service availability and proximity to other types of economic zone, the diffusion of potential of economic exploitation may be strategically used to reduce propensity towards tall constructions. **Since it would not be in the interest of the vitality of the area to reduce beyond redemption, that would ultimately lead to slum formation in heritage areas, the experiments in transfer of development rights (TDR) being successfully tried in Hong Kong etc. may come in more handy in helping adherence to architectural and height controls in such areas.** TDR as a planning tool offers a different kind of easy maneuver to create business counter poles at a safe distance from heritage zones and for KMC too this can be capitalized with advantage.

For heritage conservation, institutional and legal weaknesses will be constraints of another kind. The weakness of the Guthi Corporation, the weaknesses in the AMP Act 1957 and its revisions, the 'built heritage' oriented government institutions and their governing rules and regulations threaten to continue to hamper development of a heritage focused core.

2.7.4 Institutional/Legal Arrangements, Conflicts and Gaps

Institutions, in general, derive their existence out of the legal enactments of the nation, which, in the case of cultural heritage, are summary provisions under the Ancient Monuments Protection Act, 1956, Guthi Samsthan Act, 1964 and Municipality Act, 1992 and their revisions. Under the last act, Section 63.1(L) requires municipalities to preserve historic and religious places, and to promote their importance and reputation. Its Section 15.2(H) requires them to also make land-use and town development plans.

The responsibilities for implementation of legal provisions under the Ancient Monuments Protection Act (AMP) are vested in the Department of Archaeology (Ministry of Tourism and Culture) and the Chief District Officer, the latter working under the Ministry of Home. These provisions require municipalities to issue building permits for new buildings or alterations at heritage sites

on permission of DOA. Although the Local Self Governance (Decentralization) Act makes Municipality an autonomous administrative institution, it is located under the Ministry of Local Development.

The right to raise resources from heritage in the context of cultural tourism may be interpreted to rest with the municipality. There is little or no 'legally established' linkage of Ministry of Tourism to cultural heritage.

The conflicts between Local Self Governance Act, Municipality Act and AMP Act in terms of ownership of sites, responsibilities for conservation, responsibilities of developmental works and authority for revenue generation, etc. add up to debilitating proportions. It is seen that only the Guthi Samsthan Act requires that institution to act towards sustaining and maintaining cultural practices as explicitly stated by donors in the past. However this is limited to 'Raj Guthi' only and other Guthis such as 'Chhut Guthi' and 'Niji Guthi' are left to unguided private action, and most of the latter have virtually ceased to exist.

The KMC organizational set up provides the 'Heritage and Tourism' Department, which is in its formative stage and not sufficiently built for handling the vast works associated with the department. KMC may, however, use any institutional/technical support provision of the various departments and NGOs and INGOs. However, all the government departments are not legally required to assist in or act directly for implementation of KMC's policies, plans and programs.

We can, also, see a glaring gap in institutional provision for conservation of intangible cultural elements. As a matter of fact, Section 63.1(L) of the Municipality Act omits reference to properties of aesthetic, cultural or social importance. This will make preservation of even physical heritage components such as private residential courtyards, wells, stone water conduits etc. contestable legally.

2.7.5 Strategic Policies and Actions

General policy of heritage clearance: In addition to the building controls now in force in WHS monument zones and administered by DOA and CDO, KMC will formulate policies, development guidelines and controls for all monuments and associated sites as per the following lists. KMC will require all public and private

agencies, including its own organizational parts, and individuals proposing to build new buildings and alter existing ones, to dig or lay layers or build over open spaces, streets, street nodes, heritage courtyards, around hitis and other listed property to apply and get prior 'policy clearance' and will issue general approach requirements for such activities. **A substantive 'heritage impact statement' will be additionally required to be submitted for consideration of any kind of development intervention.** KMC will refer applications to relevant expert agencies or expert practitioners until its own professional units are strengthened. The same shall be intimated to relevant stakeholders for their opinion if felt necessary. Such procedure will apply to:

All sites and monuments within KMC and listed in Kathmandu Valley Protective Inventory; selected Buddhist monasteries of importance to city (from those listed in JK Locke's Buddhist Monasteries of Nepal).

- ❑ All Hitis, Patis and Sattals as per DHBPP inventory,
- ❑ About Nandikeshar Bahal, Bhagavan Bahal, Bhagabati Bahal, Satyanarayana and Chabel Ganesh in Naxal, Hadigaon and Chabel,
- ❑ Around all street nodes as per KVPI
- ❑ Along all festival routes of Matsendranath, Kumari, Matachhoye, main streets of Hadigaon, main street Sifal-Jayabageswori and
- ❑ Suspected Proto-historical Sites such as Hyumat area, Wongah area, Otu area, Dhobi-chowr (behind Narayanhiti), Mehpi, etc.
- ❑ Others as new heritage sites as identified.

Planning actions and interventions:

KMC will introduce 'business permit' requirement for all activities except residential and traditional commercial activities, in all the sites. KMC will affect through its own investment programs and other government development programs easing of developmental pressure on heritage zones and nodes. **The policy of developing business and economic counter-poles at appropriate distance from cultural nodes will be consciously and consistently applied. TDR regulations will be formulated for each conservation site/node and its counter-pole area where the development right may be transferred directly or through commercial sale of right will be assigned.** KMC will work with DUDBC on any required 'FAR' variations that would be applicable.

CITY DEVELOPMENT STRATEGY

Pedestrianization of cultural precincts will be extended from WHS to other nodes gradually. KMC will also work with DUDBC on details of zoning regulations for core areas and arrange for necessary legal provision for enforcement. **Taxation will be used as both encouragement and deterrent.** KVWHS regulations will be revisited with DOA to better accommodate development wishes of the owners of buildings and spaces around them.

In cooperation with DOA, primary exploration of all archaeological sites within KMC will be initiated.

Policy and Actions towards already concluded incompatible activities:

KMC will initiate and affect or **seek to affect relocation, reconstruction of exterior façade, or demolition including change of incompatible usage of public and corporate buildings in the heritage sites.** Usages and activities such as industrial (production processes with air, water and noise pollution potentials) or commercial (go-downs) and offices inviting heavy traffic will be revoked in heritage sites and nodes. Height restrictions and exterior architectural character will be applied to all buildings and necessary redressing required.

Private Heritage Buildings:

KMC will **make an inventory of heritage buildings in private possessions** and will frame policies for their conservation. This will be based on the recommendations of DoA and their 'Categorization of Private Heritage Buildings' now being prepared under a government committee. Part of KMC's development resources will be allocated for grant assistance. **On taxes administered in the municipal level, KMC will design appropriate waivers to such properties maintained in the spirit of the policy.**

Coordination of key stakeholders:

KMC will take the lead to coordinate the interests, activities and use of potentials of all the identified key stakeholders in all the listed heritage sites and activities. Through, the active NGOs in the city, KMC will make positive efforts to raise community participation in heritage conservation and revival. It will make necessary inventory of Niji and chhut Guthis extant or dying and make efforts through them to revitalize them. It will also set aside endowment funds to augment their activities. The resources for such endowments will be sought from tourism and travel trade industry. **The 3P program will be extended to heritage sites and nodal spaces**

within the core. KMC, in cooperation with the central government and the Guthi Samsthan will initiate actions towards restoring select guthis back to community management at the Ward level. Similar actions to strengthen legal provisions for conservation of Chhut and Niji Guthis will be initiated.

Program support to intangible heritage conservation:

KMC will make a cultural statistical survey of residents in the core of the city and ascertain sites of importance by tole and clans. **KMC will support in cash and kind surviving cultural practices and rituals (amurta sampada) - such as festivals, annual worships, dafa bhajan, etc. Youth participation through Kathmandu 2020 will be initiated.** Educational and awareness campaign will be launched among youth with the objective of attracting youth participation in cultural activities. **The 'one school-one site' program will be extended to include 'cultural festivals, local practices and clan activities'. KMC will initiate activities towards conservation of the 'Newari language' as a heritage issue. KMC will actively work towards establishing a 'museum of intangibles of Newari culture'.**

City Service Conservation:

In the case of Hitis, wells, Patis and Sattals, KMC will make direct effort to conserve and use these as city services in addition to conservation of the historic and aesthetic values of such properties. **A program to revitalize the water supply system to augment the piped supplies will be targeted immediately and will consist of restoration of the physical aspects as well as reservoir, canals and drainage associated with the system.** The inventory of the said elements will be revised to identify those with service relevance and programs of regeneration developed in coordination with DWSS. Hitis with lost reservoirs will be activated through a scheme of waste-water recycling reconstructing filled up traditional pond areas for such a purpose.

Traditional Skills:

KMC will initiate conservation action towards identified traditional skills (handicrafts), and traditional goods/products (Pina, Dalle sabun, Chaku, Tamakhu, Paat, Pustakari, Lakhamari etc.) and their associated workshop and market areas. These activities will consist of inventory preparation, awareness augmentation and active assistance for production process maintenance/product innovation through studies, trainings and education. **KMC will also make it a policy to use**

traditional design, technology, material and skilled workers in all 'reconstruction' of traditional public spaces and buildings. The same will be required of similar works to be done by all its ward offices, particularly Ward. Nos. 4, 5, 6, 7 and 15.

New Constructions under KMC funds:

All new buildings, using KMC funds or funds granted by or borrowed from international donors, will use design sympathetic to architectural traditions of the city. KMC will appoint a group of experts to review the designs prior to construction. KMC will also prepare and make available a set of general design guidelines for such projects.

Visitor Fee Policy:

KMC will frame policies, requirements and activities for local committees charging visitor entry fees. KMC's institutional representation presence in the committees will be built up in the case of WHS zones. For lesser known sites, Ward level representation will be required. **KMC will initiate dialogue with heritage dependent industries such as hotels, restaurants, handicrafts shops, travel agencies, etc. and with Nepal Tourism Board to draw their direct financial contribution in meeting heritage conservation and management costs.**

New Tourist Sites Development:

KMC will actively work towards environmental and facility improvement in riverine heritage, Rana period heritage and proto-historic sites.

2.7.6 Organizational Setup and Capacity Building

Heritage and Tourism Department will be reconstituted and staffed to effectively address inventory, recording and documenting, preparing conservation plans, performing monitoring actions,

education, awareness and training functions and implementing conservation action. The heritage definition will be expanded to include intangible heritages as well as physical heritage as outlined above in strategies, policies and actions. Tourism related functions will be separated into different sections. The heritage section will be divided into policy and planning cell, monitoring cell and implementation cell. The resource generation activities will be located within tourism section.

Cells will be staffed with appropriately qualified staff including conservation architects. They will be trained for their specific specialized duties. The technical services of professionals and technical personnel available in private or in the stakeholder organizations will be mobilized.

2.7.7 Progress Indicators:

1. Building bye-laws are revised for application to heritage spaces and nodes.
2. City museum is developed in Hanumandhoka Police office site.
3. Pedestrianization of key heritage sites.
4. Linkages between conservation and financial incentives to do so are legally established.
5. Policies and action plans for Guthi Samsthan for land, jewelry and festival management are developed.
6. Intensive cultural surveys are carried out for festivals, rituals, food, cultural products, bhajans etc.
7. Stone water conduits around Rani Pokhari are rehabilitated.
8. Research projects are carried out in various locations for inventory mapping.
9. Training, marketing and promotion of craft products on a regular basis.
10. KMC initiates the process of implementing DOA recommendations.

2.8 COMMUNITY DEVELOPMENT

2.8.1 Existing Situation

Presently, KMC has 12 departments within its organizational structure to undertake various community development activities. Although the Social Welfare Department is the prime unit to look after community development programs, it has very limited activities underway. The indifference toward CD activities of the mass populace, inadequacy of financial and human resources along with weak managerial capacity has highly constrained the CD activities in KMC. Given the present circumstances, coordination and integration of programs is one of the main challenging issues of KMC.

The available record of Social Welfare Council shows that there are 2,681 NGOs and INGOs in operation within KMC to undertake various community development initiatives. It has been also observed that the prevailing situation and constraints within KMC has also barred it from taking a leading role in streamlining collective efforts in development process. KMC should try to provide additional momentum to CD programs in the city by reorienting and restructuring its present structure and CD policies in line with the emerging trends and the provisions of the Local Self-governance Act.

Table 22 : NGOs and INGOs Affiliated With the Social Welfare Council.

S.No.	Sector	No. of NGO/ INGO	KTM based
1	Community Development	4,646	1,501
2	Child Welfare	202	95
3	Health Services	199	107
4	Handicapped & Disabled	125	52
5	Women Service	841	242
6	Moral Development	210	84
7	Environment	574	259
8	Education development	82	39
9	HIV/ AIDS	36	24
10	Youth Activities	1,906	278
Total:		8,821	2,681

Source: List of NGOs and INGOs affiliated with SWC book

2.8.2 Issues

During the First Stakeholders Workshop participants identified various pertinent issues related to community development along with their causes. Some distinct suggestions and recommendations were also proposed at various activities level. Based on the outline structure of the CD issues a detailed city diagnostic report was prepared earlier to assess and analyze the situation in KMC and its organizational capacity to initiate CD

programs. The following issues had been identified on CD:

- a) **Street children and Child Labor:** Lack of rehabilitation center for the street children, exploitation of child labor along with inadequacy of basic health and education were identified as one of the prime concerns under this issue.
- b) **Girl's Trafficking:** Poverty associated with lack of access to opportunities along with domestic violence was considered the root cause for girl's trafficking. Indifference of the mass people toward this issue and inadequate rehabilitation programme were listed as the major concerns under this issue.
- c) **Empowerment of Women:** Absence of policy and programmes on Gender equity, skill development, access and

Table 21 : Comparison of Some Selected Socio-economic Development Indicators for the Whole Nation and KMC (Planned for 9th Five Year Plan Period Within the Range of 20 Years Long-term Planning Perspectives).

S.No.	Indicators *	FY 2053 / 054	By 9th Plan	By 12th Plan	KMC at present
1	Per Capita Income	Rs. 7,673	-	-	20,939
2	Poverty	42%	32%	10%	35.6%
3	Population Growth	2.38%	2.0%	1.5%	6%
4	Unemployment	4.9%	4%	3%	7.8%
5	Semi-unemployment	47%	32%	10%	NA
6	Average life expectancy	56.1 yrs.	59.7 yrs.	68.7 yrs.	67 yrs.
7	Child mortality ('000)	74.7	61.5	34.4	NA
8	Children mortality (< 5 yrs/ '000)	118	102.3	62.5	NA
9	Fertility rate	4.58%	4.20%	3.5%	NA
10	Mortality of Mothers (100,000 LB)	475	400	250	NA
11	FP acceptors	30.1%	36.6%	58.2%	NA
12	Primary School Children	70%	90%	100%	86%
13	Higher Secondary School	45%	60%	100%	NA
14	Literacy rate	40%	70%	100%	78%
15	Available Drinking Water	61%	100%	100%	67HH
16	Electricity Facility	14%	20%	50%	99 HH
17	Telephone Service Line ('000)	10	25	150	88 HH
18	Districts with Road connection	56	66	75	all
19	Irrigation Facility for Agri. Land	60%	68%	95%	NA
20	Available Roads (in km)	11,714	13,564	18,114	995

Source: * Data collected from different sources.

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control over resources and opportunities, domestic violence were identified as the concerns on the Gender issue.

- d) **Employment and Income Generation:** Inadequate economic opportunities and employment, heavy migration, increasing gap between the rich and poor and fragmentation in social structure were the prime concerns under this issue.
- e) **Education:** Literacy programmes for children and women, drug abuse, girl's trafficking, increasing trend in unemployment were the major concerns under this issue.
- f) **Health:** Inadequate and expensive basic health services, mother-child health, education and awareness on family planning were identified as the prime concerns under this issue.
- g) **Senior Home:** Absence of policy, programmes and rest house provisions for the senior citizens were the basic concerns under the issue.
- h) **Social Security:** The rapid growth in the number of social ills and disorders due to various socio-economic factors (i. e., drug abuse, girl's trafficking, domestic violence, food contamination, road safety etc.) were identified as the prime concern under this issue.
- i) **People's Participation:** Inadequate people's participation, lack of people's awareness and two way communication system, co-ordination and confidence building along with feeling of ownership remained the prime concerns under this issue.
- j) **Natural Calamities:** Inadequate people's participation, awareness, co-ordination and confidence building in disaster planning and management along with lack of ownership remained the prime concerns under this issue.

2.8.3 Strategies

The focus group discussions of 14 December 2000 and the Second Stakeholders' Meeting of 17 January 2001 has come up with the following strategies to address the various CD related issues:

- a) **Street Children and Child Labor:** Develop clear policies, programmes and guidelines for KMC and create awareness campaigns. Initiate close collaboration and networking with concerned stakeholders (INGOs, GO and NGOs) to establish rehabilitation centers and collective programmes.
- b) **Girl's Trafficking:** Collaborate in networking with concerned stakeholders to create mass awareness and establish rehabilitation centers along with introduction of income generating activities to mitigate the poverty situation.
- c) **Empowerment of the Women:** Create gender-balanced policies and strategies to address the gender related issues and involve stakeholders to implement different activities (i.e., scholarship, skill-oriented training and quota reservation/ short-term etc.).
- d) **Education:** Develop networking with the concerned stakeholders to create public awareness programmes to induce compulsory and quality education. Create an intra-organisational monitoring mechanism by involving the Ward Committees.
- e) **Health:** Develop networking among different stakeholders and create policy guidelines and working strategy to initiate self-sustaining quality basic public health services at the Ward Committees.
- f) **Senior Home:** Develop clear policies, programmes and guidelines for KMC and create awareness campaigns. Initiate close collaboration and networking with concerned stakeholders to establish rest houses and socio-economic programmes for senior citizens.
- g) **Social Security:** Develop clear policies, programmes and guidelines for KMC and create awareness campaigns. Initiate collaboration and networking with concerned stakeholders and expand the facilities and services (phase wise) to take full-fledged responsibility of Metropolitan social security.
- h) **Unemployment and Income Generation:** Develop linkages with different stakeholders to assess and develop appropriate mechanism to offer self-employment opportunities to self-motivated youths.

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Initiate dialogue with the government to develop and implement policies and programmes to mitigate the heavy migration in the Kathmandu Valley.

- i) People's Participation:* Adopt a more transparent and participatory approach by providing equal and ample opportunities to all concerned stakeholders to participate in the development process.
- j) Natural Calamity:* Develop close networking with the concerned stakeholders to initiate mass awareness raising campaigns on disaster prevention and preparedness. Establish a steering committee in KMC to co-ordinate and manage the natural calamities programme.

2.8.4 Progress Indicators:

1. The institutional capacity is developed and vision mission and objectives of the department are clearly defined including annual targets.
2. Networking and linkages are developed with prominent partner organizations.
3. Overall capacity building from ward level to central level are carried out.
4. A community development data bank and information system is established in KMC in the proposed information center of KMC.
5. The budgetary constraints are minimized and adequate funds allocated for the department comparable to other department budgets.

2.9 ENVIRONMENT

2.9.1 Existing Situation:

Among the multitude of factors contributing to the increased momentum of urban growth in the valley are the inordinate concentration of decision-making and development functions in the valley owing to its being the political and economic capital of Nepal. **While in countries like India or Pakistan the political capital and the financial capital remain more or less as separate entities, both these roles have tended to reinforce each other in a single region, i.e., the Katmandu Valley, in Nepal.** As a result, Kathmandu Valley has become the focal point of public sector employment in the country, besides being the major center of private sector employment catering to an increasing population, for whom proximity to the centers of decision-making and development functions is most vital.

What emerges quite clearly in the **first** instance is that the **KMC cannot be considered only with reference to the Kathmandu Valley**, and that its roles and functions transcend the limits of the valley, encompassing the entire country.

Secondly, more than any other settlement system in Nepal, the major concern in Kathmandu is not with respect to attracting off-land economic activities per se. **The concern is more regarding the type of economic activities in juxtaposition to the environment.** Because of the unique physical setting of the valley and unplanned urban sprawl, there are serious constraints to the provision of essential services like drinking water, sewerage and drainage while at the same time, the levels of river, ground water, air and noise pollution are tending to reach precarious levels. This is resulting in rapid degradation of the natural as well as built-environment, jeopardizing the very basis upon which sustainable growth and development depend.

Thirdly, while the functions and activities have multiplied in the Kathmandu Valley over the years, there has been a conspicuous and relative decline in the institutional capacity to handle these functions. The build-up of the local, municipal and district capacity to deal with problems arising from rapid urbanization have been inhibited and hampered by political exigencies and pressures exerted by the imperious presence of the central authority. **There is in effect, an "operational vacuum", and the total lack of an institutionalized**

system to visualize the future of the valley, and the means and mechanisms to move towards that vision.

This report outlines many issues pertaining to environmental problems of Kathmandu. These issues cannot be dealt with simultaneously and will have to be done in stages. **KMC will require substantial external help to organize the needed programs, to develop its institutional capacity, and to effectively change the quality of life of Kathmandu's residents.** However, the most fundamental source of change must emerge from the collective efforts of the local people and their communities. A large part of the valley-wide issues in environment cannot be resolved without the active participation of the central government and the donor communities. Similarly, for many of the environmental problems in Kathmandu, fundamental changes in conventional approaches are needed to decrease cost and increase effectiveness, such as public private participation programs. Much greater emphasis is needed on decentralized solution, based upon active participation of local organizations supported by adequate institutional and financial support from other line agencies including private sector and funding agencies.

2.9.2 Problems and Issues:

There are plethora of problems and issues that are very much visible in the KMC. While the problems seem to be concentrated in city core area only, the solutions lie beyond the municipal boundary in terms of physical development. The administrative jurisdiction of KMC limits its influence area within the municipality where as the problems is of national level. A very complex situation exists at present while seeking meaningful and implementable solutions. Nevertheless, some of the issues and problems are identified below.

Broader Issues of National Significance:

(i) Urbanization and environment:

In the context of environment of the Kathmandu metropolis in particular and the entire valley in general, it is important that carefully drawn development strategies are to be developed and bold environmental protection measures are to be initiated at the earliest possible. Kathmandu serves as the main engine of economic growth as well as the fulcrum of social,

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cultural, spiritual, scientific, political and administrative advancement. Failure to take effective measures to improve its environment now, will result in disastrous consequences. Moreover, effective **management of Kathmandu's environment and holistic and balanced development of the valley as a unit can help in advancing the national development objectives.**

(ii) Fragmented Political Boundaries and Unified Environmental Reality of the Valley:

Environmental problems such as air, water and soil pollution, solid waste management, loss of greenery, lack of effective infrastructure etc. are the tangible and evident characteristics of big cities in a developing nation. In the Kathmandu context, such occurrences are posing seemingly insurmountable problems in the absence of futuristic strategies and plans. The state of the environment in Kathmandu has been a subject of discussion at all levels, yet efforts by the government and other support agencies are considered inadequate. These problems are not confined to KMC alone, and hence **underscores the need to treat the whole valley as one single environmental unit.**

(iii) KMC's Emerging Environmental Problem-New Dimensions:

The shape and character of the KMC's future environmental problems will be different from the past experiences. During the early years till the 1970s, the process of urbanization and industrialization was in its infancy, the magnitude of the problems were well within control, and the concerned Ministries and Departments including the KMC, were able to keep pace with the changing trends. The development activities in the later decades have caused considerable and consistent escalation of environment-related problems, for which technological solutions action plans must be sought at the earliest lest Kathmandu and the KMC will be compelled to bear the brunt of the most irredeemable national crisis. **The need for a gargantuan transport system to cater to the thousands of commuters everyday, serves as a good example** in this context. All such essential services are no longer of local purport and substantially draws upon the nation's resources. The pattern of living of Kathmandu's residents have led to air-noise pollution, traffic congestion and dearth of space. What is more important, the conflicts arising between the traditional and emerging human environment and the rapid changes in the basic urban system have disrupted the ecological balance.

(iv) Environmental Constraints to Growth:

It has been a matter of serious debate among planners and policy makers to define the pattern of future growth of the Kathmandu City. However, it can be conclusively said that **Kathmandu's development cannot be modeled on the pattern of big metropolitan cities like Bombay, Delhi and such other cities of South Asia, for the chief reason that both natural and financial resources of the valley and the nation at large, are limited.** Unlimited expansion of Kathmandu may lead to serious resource-population imbalance pertaining to land, air, water etc., as much as to exhaustion of resources.

(v) High Social Costs of Environmental Disruption:

The present system of Kathmandu's development plan is primarily based on production, commerce, tourism and administrative functions. New functions are emerging in the valley such as education, defense, security, health and export based industries. Instead of allowing all these to cluster and suffocate in one limited core area, it is more exigent to look for alternative locations, in the overall interest of the environment, as these are likely to strain the existing infrastructure. **The wrong location of industries, even in the middle of settlement areas, have led to high social costs incurred in addressing the adverse impacts.**

(vi) Sectoral Problems:

(a) Solid Waste Management

Choosing the correct location for a sanitary landfill in Kathmandu has been a time consuming process. The need has been long felt for the development of a new

Table 23: Characterization of Kathmandu's Solid Waste

Component	Year Percentage of Waste (By Weight)				
	1976	1981	1985	1988	1995
Organic Material	67.6	58.2	67.5	57.8	52.2
Paper	6.5	19.3	6.0	6.0	6.0
Textile	6.5	5.3	2.7	2.0	5.0
Metal	4.9	3.4	2.2	0.4	4.8
Glass	1.3	3.4	4.0	1.6	3.6
Plastic	0.3	3.6	2.6	2.0	5.4
Rubber/Leather	0.0	0.0	0.0	0.4	2.3
Wood	2.7	1.6	0.0	0.5	4.4
Bones	0.2	1.8	0.0	0.3	2.5
Batteries	0.0	0.0	0.0	0.1	0.6
Inert Materials	10.0	3.4	15.0	28.9	13.2

(Source: KMC)

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landfill site for Kathmandu owing to the fact that the current landfill site at Gokarna is already closed. Efforts for identifying and developing a new site in the past few years have resulted in the consideration of many sites. However, **frequent disruptions in the proposed landfill sites due to obdurate resistance from the local residents** has caused serious setbacks.

(b) Air Pollution:

Despite some notable achievements in coping with air pollution problems, the overall progress has been slow. A number of constraints are responsible for this slow progress, of which the most important are as follows:

- ❑ Lack of information and comprehensive data on existing air pollution problems and their effect on health and the ecosystem,
- ❑ Lack of environmental law and inadequate sectoral legislation for air pollution control including administrative procedures,
- ❑ Lack of perspective plan in order to manage air pollution problem,
- ❑ Lack of trained manpower and facilities including laboratory equipment to deal with air pollution problem,
- ❑ Lack of programmes to facilitate people's participation,
- ❑ **Lack of comprehensive land use policy and plan,**
- ❑ Lack of industrial emission standard and vehicular emission standard of pollutants other than CO, and smoke.

(c) Industrial Pollution:

Management of industrial environment in Kathmandu Valley deserves close attention not only because it has been neglected so far, but also because of the fact that industries will continue to grow in the coming years. The small-scale industries such as carpets and garments will grow unhindered if not checked in time. The growth of these small industries however can be quite unpredictable as they depend upon many factors. **For instance, there was a 300 percent growth of carpet industry inside valley between the year 1987 and 1991.**

The environmental problems stemming out of these industries, irrespective of their sizes, will assume unmanageable proportions as they proliferate over the years. **Till date, there are no guiding principles to monitor these industries in terms of their location, outputs and effluent.** There is no effective national environmental policy with an intrinsic doctrine for industrial pollution control which has resulted in a total dearth of pollution control and monitoring mechanism.

(d) Water Pollution:

The Status of Water pollution as available from studies done so far revealed the poor state of Kathmandu valley's environment. **The pollution of municipal piped water supply in terms of bacterial parameters is uniformly higher than WHO recommended standards.** In some cases the situation of chemical pollution is within

Table 24: Ambient Air Quality in Various Areas of Kathmandu Valley

Area	Particulate				NO ²		SO ²	
	TSP (Total Suspended Particulate matter)		PM10		24 hr. average	8 hr. average	24 hr. average	8 hr. average
	24 hr. average	8 hr. average	24 hr. average	8 hr. average				
Commercial Areas								
1) Heavy Traffic Areas								
Singh Durbar	303	532	142	144	37	45	49	72
GPO Area	380	682	137	157	11	24	37	33
2) Medium Traffic Areas								
Ratnapark	187	300	67	74	32	27	18	19
Lainchaur	228	367	103	100	19	25	17	38
Kalimati	391	734	135	154	19	35	77	71
Residential Area								
Maharajgunj	191	93	72	49	12	15	19	13
Naya Banesewor	200	50	113	31	13	14	25	62
Jaya Bageswori	228	341	112	116	49	38	29	119
Industrial Area								
Balaju	108	109	40	40	15	17	31	34
Himal Cement Factory (surrounding)	430	-	166	-	38	-	57	-

(Source: Urban, 1996)

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Table 25: Bacterial Levels in Kathmandu Drinking Water

Locations	Coliform Bacteria/100 m l water		
	May/June Summer	July/Aug Rainy	Nov/feb Winter
WHO Standard	<1 Coliform per 100 ml		
Ashan	11	460	0
Balaju Park	0	0	0
Bhimsenthan	9	15	3
Bhimsenthan (Well)	20	15	0
Baneshwor Chowk	0	0	9
Bag Bazaar	15	15	3
Bhotahity	3	75	15
Bhotahity tubewell	0	0	0
Chhetrapati Chowk	15	20	0
Chikamugal	75	15	43
Dallu	150	240	9
Dallu (Spout)	75	460	43
Dharahara	3	3	0
Dilli Bazaar	9	3	0
Ganabahal	20	75	15
Gyaneshwor	0	3	0
Gyaneshwor Well	15	43	0
Humat Tole	240	75	75
Humat Tole Well	460	4800	20
Kamal Pokhari	15	15	0
Kalimati	240	75	9
Lainchaur	0	0	0
Maruhiti	15	15	0
Naradevi	20	240	9
Naradevi well	240	460	3
Naxal Chardhunga	15	9	0
Om Bahal	93	75	3
Paknajole	15	9	9
Thaihity	0	3	0
Thahity (well)	0	3	20
Tripureshwar	93	75	3
Wotu	0	3	0

Source: CEDA 1990

acceptable limits except of heavier iron concentration in some reservoirs and treatment plants. Ground Water quality in stone spouts, dug wells and tube wells is also poor with varying levels of bacterial contamination. Surface water is both chemically and biologically polluted. Researches have proved that this is mainly due to raw sewage, industrial effluent and solid waste.

(e) Noise Pollution:

Noise pollution in the Kathmandu City is **reported to be on a steady rise**. The major sources being vehicular traffic, air traffic and industries that are inappropriately located (in school or residential areas). In areas such as Ratna Park, Bir Hospital, Thapathali and Teku, noise levels during heavy traffic hours exceed 100 dba. Noise control measures neither exist nor are reinforcing mechanisms in place. In the absence of regulatory mechanisms and controls, noise pollution will remain an environmental hazard in the Kathmandu Valley.

7.9.3 Strategies

The development of strategies for environment protection has been linked with the opportunities to implement various programs. The strategy has been developed with an intention to **reconcile the needs of the fast growing urban population and the quality of the city environment** in terms of four elements. This reconciliation provides the guideline for developing environmental strategies.

Elements	Strategic Guidelines
<i>Wise-use</i>	Manage the use of municipal non-regenerative resources wisely such as land and its heritage assets;

Table 26: Noise Level in Different Sites in Kathmandu.

S.N.	Locations	Noise level(dBA)	Year	Remarks
1.	Trichand Campus	80-90	1985	Educational area
2.	Amrit Science Campus	75-85	1985	Educational & Residenteal area
3.	Ratna Park	72-91	1985	Bus park & Market
4.	Bir Hospital	90-95	1985	Hospital area
5.	Teku	85-100	1985	Business locality
6.	Jochhen *	82-100	1985	Business locality
7.	Lazimpat *	80-98	1987	Market & Residential area
8.	Putalisadak *	82-98	1987	Residential area
9.	Ashan	73-80	1985	Market area

Source: Shrestha, C.B. & Shrestha, G.B. 1985, * manandhar, M.S. et.al., 1987

Protection Protect the city from activities that are not compatible to its development goals and the projected futuristic vision;

Preservation Develop tools to protect historical and archaeological values and undertake measures to preserve cultural property and cultural expressions to enhance built environment;

Restoration Undertake measures to restore natural and built environmental components.

A determined effort has been made to avoid developing a strategy that consists of a series of imprecise recommendations based upon theoretical constructs. Instead, the goal has been to develop an **environmental action agenda that is realistic and DOABLE** - hence capable of implementation by municipal government.

(a) Management of Environmental Constraints to Growth:

- (i) Planning, management and **control of pollution prone economic functions in KMC** and in the valley for environmental quality;
- (ii) **Land, water and air are** the resources that are finite and limited and hence, should be treated as **severe constraints to growth of the valley**;
- (iii) Kathmandu valley is a unique place in the world and hence, its **development needs to be sympathetic to national and global interests**.

(b) Minimising high socio-economic impacts of environmental disruptions:

- (i) New economic development plans for Kathmandu needs to be cautiously adopted by the central government so that they are fully supplemented by **adoption of new and environment friendly economic activities**.
- (ii) Of all the economic activities in the Kathmandu valley, uncontrolled industrial development can have a marked impact. **Shifting priority from industry to tourism should be a strategic goal**. This is important for KMC because, **touristic values that are present in Kathmandu and which took several hundred years to develop, can never be replaced by industrial development**.
- (iii) There is equally a serious danger in the effect urbanization has on the social aspects of Kathmandu. How to ensure that the urbanization are made responsible for the loss of social and cultural harmony is a question that may never be answered. However, the question of priority will have to be clearly defined, Once again, long-term social costs would have to be brought into picture, and the **KMC**

will have to make a very critical choice of the strategies they will pursue to meet the short-term needs and yet ensure KMC's long-term prosperity.

(c) Strategies to manage pollution:

This group comprises solid waste management, air, water, noise and land pollution. In this group of environment problems, most of the corrective measures are dependent on administrative and legislative actions of the central government. KMC can, however, act as a supporting agency. Some of the strategies for corrective measures in this group are:

(i) Pollution:

- **Identification of implementable standards** for persistent pollutants and adoption of national measures to limit the release of such pollutants into the environment.
- Building up of technological capacity of KMC and MOPE through strengthening technical manpower. KMC can also benefit from various studies being carried out by NGOs. Environment department of KMC plays a critical role in updating information and putting a pressure on central government for initiating remedial actions at the central level.

(ii) Land:

In so far as land is concerned, a management strategy of **"appropriate location for appropriate function"** has to be pursued. Land inventories have already begun in KMC (KVMP/EEC project) and comprehensive land use within KMC is expected to result in future.

- Land ownership of KMC should be improved by acquiring public land and securing them for public or other economic utilization. **KMC will need to acquire as much land as possible within and outside the KMC's political boundary**. If need be, KMC's boundaries should be expanded and it should accommodate neighbouring areas for future growth.

(iii) Water:

- **A complete ban on sand mining within the valley** from rivers and promotion of treatment plants for effluents will be a good beginning. Specific national action on the part of central government has to be given full support from KMC.

(iv) Cultural and Natural Heritage:

- **Development of historical sites** and recreational parks, and conservation of representative samples

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of its most important biological communities through gaining ownership of such areas.

- ❑ Old buildings of architectural significance should be declared as "**heritage buildings**". Develop criteria for such recognition and provide incentives to maintain them.

(v) Industrial Pollution:

The environmental concern need not and should not lead to discouragement of all the industries. On the other hand, **high value added and clean industries could be promoted**. Only large and medium scale industries and pollution prone industries, even if they are small, needs to be discouraged.

(vi) Public Education:

KMC with the help of other agencies, should take immediate steps to **develop in KMC's citizens an "environmental ethic"**. To this end, KMC should employ the media (Metro F.M.) and other means of communication.

(vii) Information:

KMC should **set up information centre** in its city head quarter. This centre, in addition to providing document retrieval and referral services, should develop data banks on areas of priority interest.

(ix) Research:

KMC should **initiate action oriented research projects** which will assist in decision-making. Assistance should be sought from international agencies, municipalities of developed countries and local scientists.

(x) Technical assistance:

A comprehensive directory of the expertise available within the country should be compiled and they be made regular source of expertise. A comprehensive directory of institutions willing to help KMC should also be prepared for exchange of technical expertise.

(xi) Donor assistance and action programs:

As an immediate measure, the list of tentative projects (**CAP**) **should be widely discussed with donor community** and financial institutions.

(xii) Institutional development:

The institutional needs of CDS are not for creating new government agencies. There are already too many- but for an arrangement which will improve:

- ❑ Co-ordination between KMC and other supporting government and non-government agencies,
- ❑ Evaluation of ministry plans within the context of an overall CDS programs, specially plans of MOPE and MLD,
- ❑ Liason with and management of private sector development activity in environment protection,
- ❑ Implementation of agreed and prioritised programs.

2.9.4 Progress Indicators:

1. CDS and CAP is discussed with donor community and financial institutions and administrative procedures for projects that have funding potential begun.
2. Landfill site is finalized for solid waste management and private sector is given the responsibility of recycling the solid waste.
3. An implementable standard for drinking water supply is established.
4. Old and artistic buildings are declared as heritage buildings for protection of cultural environment.
5. KMC to initiate the process of not allowing any polluting industries in KMC area and a process of EIA is initiated for construction activities.
6. Localized and low-cost treatment plants are constructed in river banks.
7. Ownership of land through expanding political boundary for essential functions such as solid waste management, recreation, administration etc. are initiated.
8. "Polluters pay" principal is implemented in KMC area.

2.10 MUNICIPAL FINANCE

2.10.1 Existing Situation

KMC, as a local government, is responsible for providing municipal services to an estimated 0.6 million people of Kathmandu, the capital city of the kingdom of Nepal. To achieve this goal, it must prepare and manage a budget that is projected to be Nepalese rupees 1054 million for the fiscal year 2000/2001 (*please see charts on the following pages*). Besides KMC, there are several different agencies involved in providing services and development activities in the city.

Municipal finance describes the components of sound financial management; revenue generation; budget formulation and execution; financial information and control. **In the municipal finance context, KMC is characterized by low collection of taxes, insufficient and under-qualified staff, dependency on the central government for the local development fee, and weak financial monitoring and evaluation.** KMC's own funds have not been able to keep pace with the growing demands from incremental rate of urbanization, fast growing population, and increasing demand for its services.

However, there exist various opportunities in the municipal finance area. The combined efforts of political representatives and bureaucratic structure in the form of timely and planned intervention could bring changes in different sectors such as resource mobilization, budgeting, private sector participation, and accounting and financial reporting. The LSGA could be instrumental in this regard. **Though there are a few shortcomings in the LSGA, it provides different options for resource mobilization, budgeting and accounting procedures.** Strong political will, commitment and combined action are the prerequisites for bringing the desired change in the municipal finance area.

The objective of the CDS in the context of municipal finance component is to increase bankability of KMC.

2.10.2 Issues (Strategic Challenges)

Based on the issues, problems and gaps, the following strategic challenges have been identified:

Challenge 1: Bridge the fiscal gap.

Challenge 2: Develop and manage **integrated revenue collection system**.

Challenge 3: Introduce **cost recovery** concept.

Challenge 4: Prepare long-term or periodic **capital budget and investment plans**.

Challenge 5: Prepare **balanced budget**.

Challenge 6: Attract **private sector participation** in the provision of municipal services.

Challenge 7: **Implement CAS** effectively and efficiently.

Challenge 8: **Improve auditing &** internal control system.

Challenge 9: Acquire, develop, motivate and maintain **quality human resources** for municipal finance (and all other) activities.

Challenge 10: Develop **effective result management system** for all components of municipal finance.

2.10.3 Strategic Framework

2.10.3.1 Goals

Setting broad goals for an organization based on the vision and mission statement is a vital part of the planning process. In KMC's context, while developing the broad goals, the objectives of CDS also should be considered, besides vision and mission. In the light of strategic challenges and other analysis, following broad goals could be outlined for the municipal finance component:

2.10.3.2 Policy Objectives

In order to meet above goals, the system of **municipal finance will need to be restructured** in accordance with a number of basic policy principles:

Goal 1	Bridge the Fiscal Gap
Goal 2	Prepare Balanced Budget
Goal 3	Involve Private Sector in the Provision of Municipal Services & Infrastructure
Goal 4	Implement CAS Effectively and Efficiently
Goal 5	Develop Human Resources

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Chart 3: KMC Actual Revenue 1990-2000

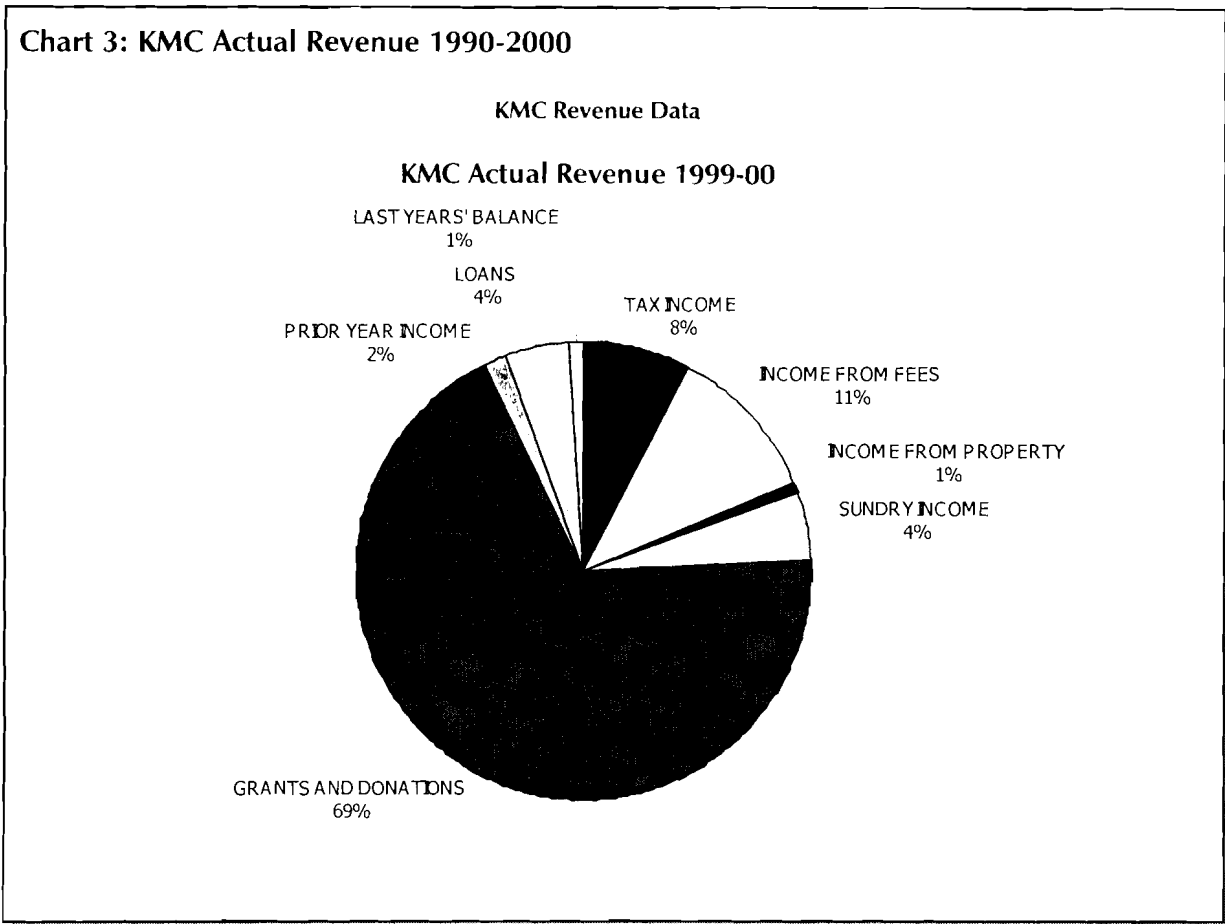


Chart 4: Own Source Vs. Grants & Loans

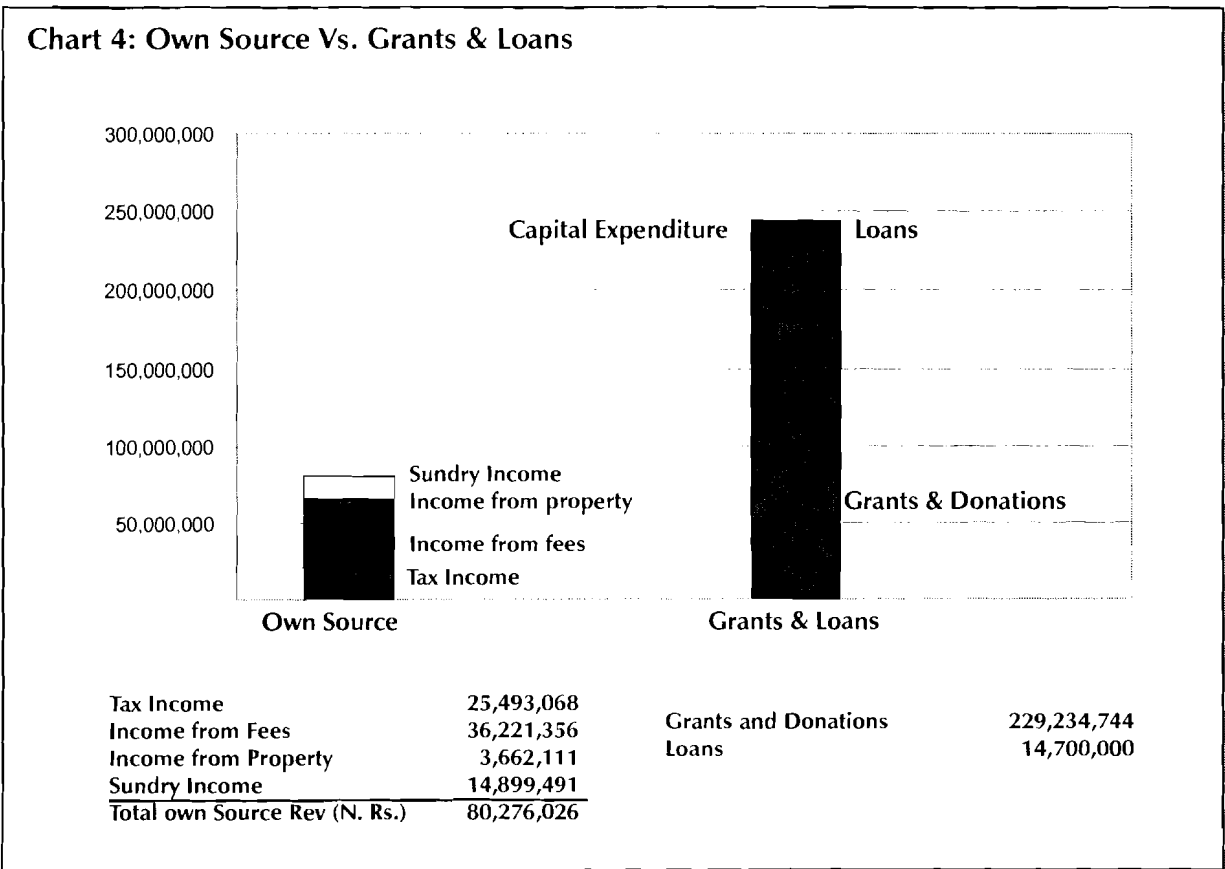
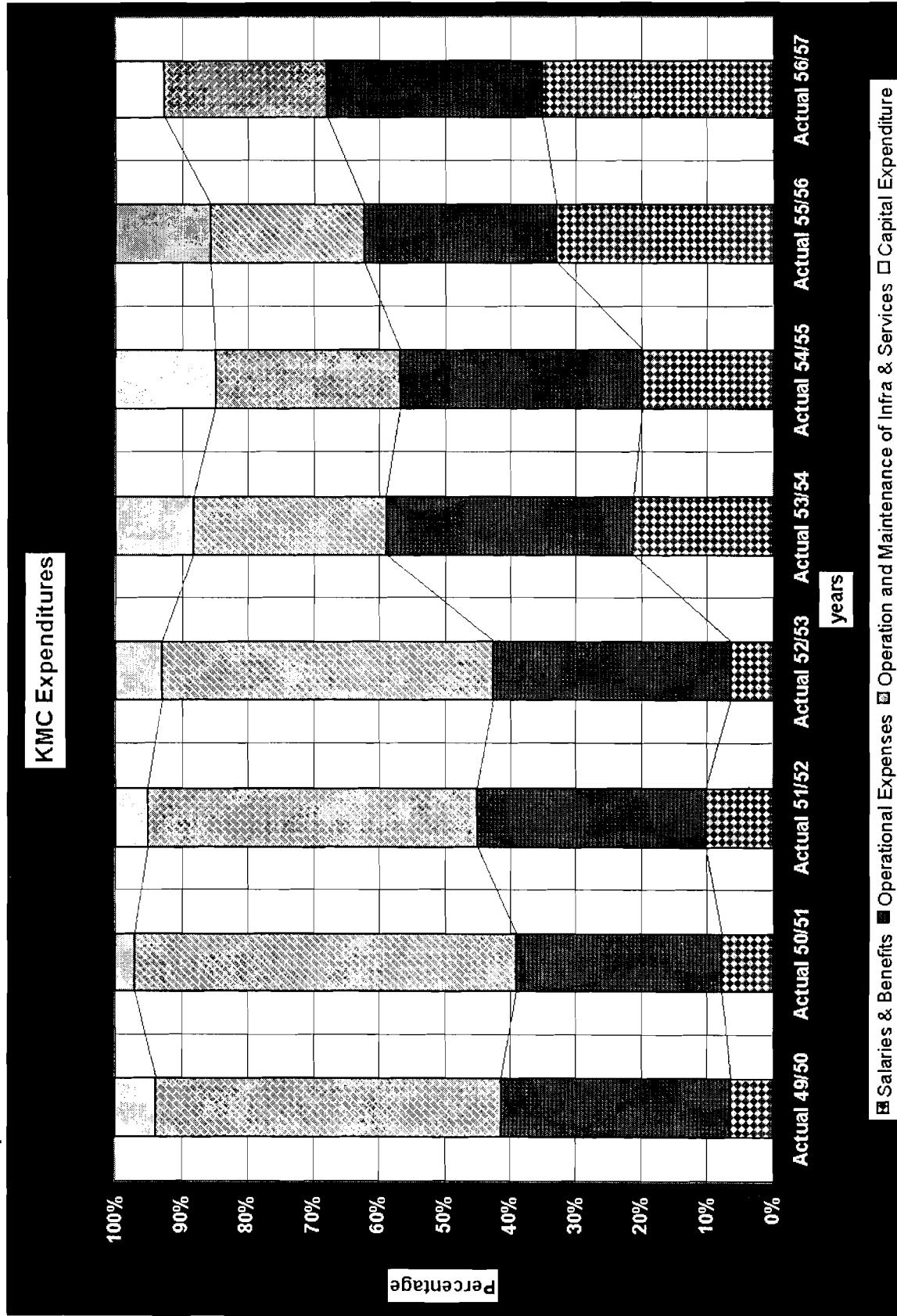


Chart 5: KMC Expenditures



2.10.3.3 Principles for the proposed financial framework:

(i) Revenue adequacy and certainty:

KMC needs to have access to adequate sources of revenue - either own sources or intergovernmental transfer - to enable it to carry out the functions that have been assigned to it. KMC should come forward to fully exploit these sources of revenue to meet the developmental objectives. KMC should have reasonable certainty of revenue to allow for realistic planning.

(ii) Sustainability:

Financial sustainability requires that KMC ensure a balanced budget (income should cover expenditures). Given revenue constraints, this involves ensuring that **services are provided at levels, which are affordable, and that KMC is able to recover the cost of service delivery.** It is the responsibility of the political leaders to ensure that they set realistic budgets. However, there is a need for subsidization to ensure that poor households, who are unable to pay even a proportion of service costs, have access to basic services.

(iii) Effective and Efficient Resource Use:

Economic resources are scarce and should be used in the best possible way to reap the maximum benefit for local communities. However, there are no mechanisms available to ensure that municipal decisions will indeed lead to an effective allocation of resources. It is therefore important that local residents provide the necessary checks and balances. They can do this by participating in the budgeting process to ensure that resources are being put to their best use. **Efficiencies in public spending and resource allocation will ultimately increase the access of the poor to basic services.**

(iv) Accountability, transparency and good governance:

KMC should be held responsible and accountable to local taxpayers for the use of public funds. Elected representatives should be required to justify their expenditure decisions and explain why and how the revenue necessary to sustain that expenditure is raised. The fiscal system should be designed to encourage accountability. **KMC budgeting and financial affairs should be open to public scrutiny,** and local residents should have a greater voice in ratifying decisions about how revenue is raised and spent. Community participation in budgeting should aim to incorporate those groups in the community, such as women, who face particular constraints in participating. It should also

include a capacity-building component to ensure that people understand the process of prioritization - why resources are allocated to one set of things rather than to another. **Accounting and financial reporting procedures should minimize opportunities for corruption and malpractice.**

(v) Equity & Redistribution:

KMC must treat its citizens equitably with regard to the provision of services. In turn, the central government must treat KMC equitably with regard to intergovernmental transfers.

(vi) Development and Investment:

Meeting the basic needs in the context of existing issues related to the resource mobilization service backlogs will require increased investment in municipal infrastructure. **Public Private Partnerships** such as leases and concessions, Administrative Systems, provide a mechanism for **attracting private investment in municipal infrastructure.**

2.10.4. Strategies

With the help of these strategic challenges, the following broad goals, strategic objectives and strategies have been formulated:

Goal 1 Bridge the fiscal gap.

Strategic Objectives 1.1 Develop and Implement Integrated Revenue Collection System by the end of 2003

Strategy 1.1.1 Develop a special project to design and implement the Integrated Revenue Collection System.

Strategy 1.1.2 Identify the donor who will assist in the implementation of the project. (Given the present financial situation of KMC, donor assistance is essential).

Strategy 1.1.2 Maximize KMC staff involvement in the project to transfer the learning in practice and to have feeling of ownership.

Strategic Objectives 1.2 Introduce Cost Recovery Concept

Strategy 1.2.1 Privatize solid waste collection in all the wards in a phased manner.

Strategy 1.2.2 Negotiate with NWSC in sharing the **drainage service charge** collected from Municipal system.

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Strategy 1.2.3 Analyze "Ability to Pay" and "Willingness to Pay" capacities.

Strategic Objective: 1.3 Lobby for favorable legislative change.

Strategy 1.3.1 Demand a separate Act for KMC, which will guarantee complete fiscal autonomy.

Strategy 1.3.2 Lobby for amending the existing Act.

Strategy 1.3.3 Prepare, approve and implement internal by laws related to resource mobilization.

Goal 2 Prepare balanced budget

Strategic Objectives 2.1 Develop Multi-year Financial Planning

Strategy 2.1.1 Prepare operating and capital budgets with 5-year budget horizons.

Strategy 2.1.2 Monitor and control budget expenditures to **minimize the potential of expenditure overrun** (revenue shortfalls).

Strategy 2.1.3 Study revenue potentialities for realistic multi-year financial planning and resource mobilization.

Strategic Objectives 2.2 Evaluate the use of debt financing to leverage spending in the Capital Fund

Strategy 2.2.1 Analyze KMC's debt-carrying capacity.

Strategy 2.2.2 Decide upon the measures to **enhance new unit** with qualified human resources to deal with the PSP activities.

Strategy 2.2.3 Use concessional loan finance.

Goal 3 Involve the private sector in the provision of municipal services and infrastructure

Strategic Objectives 3.1 Conduct feasibility studies of already identified city service and infrastructure areas; and involve them (private sector/NGOs) in the project by 2003.

Strategy 3.1.1 Prioritize the projects and determine the cost of detailed feasibility studies.

Strategy 3.1.2 Create a new unit with qualified human resources to deal with the PSP activities.

Strategy 3.1.3 Allocate marketing budget and develop a comprehensive marketing

plan to "market" the results of feasibility studies.

Strategic Objectives 3.2 Negotiate with HMG/N and obtain authority for bulk distribution of electricity.

Strategy 3.2.1 Assess the private sector's capacity and willingness to work on this project.

Strategy 3.2.2 Develop a framework for bulk distribution of electricity with the private sector involvement.

Strategy 3.2.3 Negotiate with HMG/N.

Goal 4 Implement CAS effectively and efficiently

Strategic Objectives 4.1 Improve present CAS.

Strategy 4.1.1 Review existing CAS and identify areas to be improved.

Strategy 4.1.2 Develop and implement procedures to control and **settle outstanding advances.**

Strategy 4.1.3 Organize intensive education program on accounting process, practices and internal control to all concerned including elected representatives.

Strategic Objectives 4.2 Improve auditing & internal control system.

Strategy 4.2.1 Organize and strengthen the internal audit unit with approved human resources.

Strategy 4.2.2 Prepare internal audit and control bylaws. Conduct awareness campaign for KMC employees and elected representatives.

Strategy 4.2.3 Design a system to **facilitate appointment of external auditor** as provisions of the Act.

Strategic Objectives 4.3 Establish a program to upgrade KMC's accounting and financial reporting to international standards.

Strategy 4.3.1 Design sustainable automation system for accounting and financial reporting, establishing linkage with proposed integrated revenue collection system.

Strategy 4.3.2 Develop a policy about periodic reporting and dissemination of financial reports.



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Goal 5 Develop Human Resources.

Strategic Objectives 5.1 Implement comprehensive HR Management and Human Relations Programs.

Strategic Objectives 5.2 Improve necessary training and development.

Strategic Objectives 5.3 **Design performance appraisal system,** and compensation and benefit system.

Strategic Objectives 5.4 Implement health and wellness programs

3. Integrated revenue collection system designed and implemented
4. All concerned staff and elected representatives have understood the justification and operational procedures for the activities specified and use them.
5. Multi-year financial plan completed
6. CAS is finalized and adopted by KMC by July 17, 2000
7. Monthly income and expenditure statement prepared according to CAS from August '00.
8. Computer Use in CAS by July 17, '00.
9. KMC management has financial information on assets, liabilities and net worth of KMC by December 2000
10. Staff understands and operates CAS smoothly from July 17, '00.
11. 15 Account staffs of the departments, 35 ward secretaries and 35 ward accountants trained in CAS by July 2001.
12. All required staff are in place and working according to new/revised job description by July 2000
13. PSP Unit established with appropriate human resources
14. Feasibility Study of major PSP projects complete

2.10.5 Progress Indicators:

1. The overall proportion of own source revenues in relation to total revenues (excluding grants and loans) is increased to 60% (as specified in the draft budget)
2. The actual revenue collected from these taxes is equal or more than the estimated amount shown in the draft final budget.

3. City Assistance Programs

3.1 URBAN PLANNING

3.1.1 Current Initiatives in Urban Planning

At the moment there are three ongoing programs which are comparatively more related to the urban planning process of KMC. These are Development Plan 2020, the Institutional Strengthening of KMC Project (ISKMC) and Kathmandu Valley Mapping Program (KVMP). The Development Plan 2020 under preparation by the Kathmandu Valley Town Development Committee provides a strategic guideline for the development of the entire Kathmandu Valley. It is expected to take into consideration the land and infrastructure requirements of all the different municipalities and VDCs, their interlinkages and conservation of productive agriculture land. The municipalities and VDCs are expected to prepare their own detailed development plans conforming to these larger plans. **Thus, while preparing the revised land use plan for KMC and expanding its municipal boundaries, KMC will have to coordinate its plans with the 2020 Plan.**

ISKMC Project aims to streamline and strengthen KMC's institutions so that it can better perform its urban planning and management functions. **The KVMP is also designed to improve the planning capabilities of KMC through the establishment of an information systems unit, preparation of integrated action plans for the wards and the city as well as the preparation of a strategic plan for the city, city center upgrading action plan, city core heritage action plan and solid waste management action plan.** Because KVMP will have updated and accurate data and will remain functional for a few more years, it will be in a position to review the City Development Strategy and the City Assistance Programs and revise them as needed.

Although the existing land registration system categorizes land according to its agricultural productivity rather than its actual use, recent ongoing re-survey initiatives in a few selected urban areas by the

Department of Land Administration and Department of Survey have introduced the concept of land categorization according to actual land use. This process, if continued to cover the entire valley, will greatly help to control urban sprawl and unchecked urban encroachment on prime agriculture land.

The Urban Development Department of KMC is responsible for regulating urban development and issuing building permits in Kathmandu. Their performance has been less than satisfactory mainly because of the **lack of zoning and sub-division regulations** and absence of a strong regulatory unit to take action against violators. The Department is also trying to maintain a minimum set-back of 20m along the river fronts, however, lack of delineation of river boundary on cadastral maps has hampered its work.

KMC has also been making efforts to be more transparent. It operates its own radio station and regularly issues newsletters about its activities. Private sector involvement has been encouraged through various PPP initiatives. These need to be continued and expanded.

3.1.2 Proposed Potential Future Projects

Potential future projects have been broadly divided into three separate time frames for execution. The **short-term** projects are envisaged to be completed within the first **two years**, the **medium-term** projects within **3-5 years** and the **long-term** projects within **5-10 years**. This is not a reflection of the true order of priority of the projects or the actual time of their execution, rather it is indicative of the sequential order of activities to be undertaken, albeit on a priority basis. A certain activity may be of the highest priority and may take a very short time to implement, however, it may not be possible to begin the activity until another related work is completed, forcing it to be executed in the subsequent phase. For example, although expansion of municipal area needs to be taken up immediately before the surrounding areas are developed haphazardly, it would not be possible to

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determine the actual areas to be included to the city until the location and amount of additional land area required by the city in the future could be determined from the revised land use plan.

a) Short-term Proposals

- ❑ **Prepare a revised land use plan with accompanying zoning regulations**, detailed area plans, infrastructure development programs etc. for KMC and the areas targeted for inclusion. Set up mechanism for regular review and revision and people's participation during the entire planning process.
- ❑ Establish a separate regulatory unit under UDD invested with full authority to **initiate legal action against violators**. The unit also needs to be provided with necessary back-up equipment and manpower to enable it to undertake, if necessary, demolition of unauthorized works.
- ❑ Review manpower and **training requirements of UDD and PWD** to independently take on urban planning and management functions. Provide necessary staff and training in planning related works. Involve UDD and PWD staff in KVMP activities.
- ❑ Collaborate with Department of Land Administration and Land Survey and the Department of Industries to **formulate regulations requiring prior approval** from the planning agency before final approval is given by the concerned agencies for urban land subdivision and license for **industrial enterprises within KMC**.
- ❑ Identify all existing planning and building violations. Review existing penalties for violations. Determine specific future actions to be taken to **regularize or demolish unauthorized constructions**. Take appropriate actions to regularize, after due process, all illegal constructions considered to cause lesser infringement of bye-laws and regulations.
- ❑ Strengthen and **reactivate CPC of KMC** and institutionalize its functions.
- ❑ In collaboration with the Department of Land Administration and Land Survey establish a program to **determine the river domain and transfer it on the cadastral map**. Maintain a minimum set-back of 20m. from river edge.
- ❑ **Prepare inventory of all guthi land, public land and unclaimed land within KMC**. Review and halt all unwarranted conversion of existing open spaces within KMC.

- ❑ Prepare **inventory of all non-central function government and semi-government institutions** located within KMC.
- ❑ Set up study to determine **optimum locations of open spaces** as per relevant norms. Identify land which could be used for this purpose, whether it is public unused land or if necessary land which needs to be purchased.

b) Medium-term Proposals

- ❑ **Identify all VDCs to be included in KMC** as per proposed land use plan, prepare and forward proposal to MLD for HMG approval and publication in the Nepal Gazette.
- ❑ Identify all inaccessible pockets of land within KMC and **initiate land development programs** which conform to the revised land use plan. Introduce vacant land tax.
- ❑ Initiate infrastructure expansion and upgradation in areas targeted for densification as per the revised land use plan. Encourage **private sector participation in infrastructure development**.
- ❑ Formulate, in collaboration with Department of Land Administration and Survey, regulations which **create a separate land registration category** for land already under urban use or designated for future urban use.
- ❑ **Negotiate transfer of ownership of all unused and unproductive guthi, public and unclaimed land within KMC**.

c) Long-term Proposals

- ❑ **Develop parks and open spaces, housing and other necessary urban functions** as per the revised land use plan on guthi, public and unclaimed land obtained by KMC.
- ❑ **Negotiate with HMG for the relocation of non-central function government agencies** to alternative sites outside the municipality. Establish ownership and develop the vacated land for necessary urban functions as per revised land use plan.

3.1.3 Priority Projects

a. Revised Land Use Plan

The revised land use plan for KMC is expected to cover not only the current municipal area but also the **land**

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requirements of the city within the next 20-30 years.

This additional land would of necessity encompass the already urbanized VDCs adjoining KMC as well as those most appropriate for future urban development. The plan would need to conform to the broad guidelines of the larger Kathmandu Valley plan and also remain cognizant of the development trends of the other municipalities of the valley.

The land use plan would have to be supported by **detailed zoning and sub-division regulations**, detailed area plans and infrastructure development programs. The plan would have to be translated to cadastral maps in order to remain compatible with the requirements of related agencies. Building bye-laws would have to be specifically developed to promote high density developments in the outer wards as per the land use plan. Specific proposals would have to be made for use of guthi and other public land as well as for the relocation of non-central function agencies and the redevelopment of the land to be vacated by them.

The preparation of the revised land use plan is expected to take from one and a half to two years. The services of professionals, both expatriate and local, covering different aspects of the urban sector will be required for varying periods, assisted by the necessary supporting staff. A senior urban planner with extensive experience in similar works will lead the team. **The existing planning units of KMC and PWD will have to be fully involved in the process** and the units will have to be strengthened accordingly to be able to take responsibility for execution of the plan.

The estimated cost of the project, to be executed with the involvement of international and local consultants, is about US\$ 2 million. It is recommended that KMC seek donor assistance for the project.

b) Enlargement of KMC Municipal Area

Because KMC has no legal jurisdiction over developments occurring beyond its borders which are continuing unchecked in the adjacent VDCs, there is a very urgent need to regulate this urbanization process and integrate it with the city's development plan. Much of the municipal area is already built. Although **densification can and should occur**, the city still needs to reserve additional land for its future development which it cannot do without enlarging its boundaries. By

including urbanized or rapidly urbanizing surrounding VDCs, KMC will not only be doing the inevitable by including predominantly urban areas which currently utilize the city's services, it will also be able to regulate developments as per the revised land use plan, have reserve land for future use and expand its tax base.

KMC needs to make a thorough study of the existing land uses, infrastructure services, economic linkages, development trends etc. in all the VDCs of Kathmandu Districts, except those to the south of Kirtipur Municipality. Much of this data could be available from the proposed revision of the land use plan for KMC. From this it needs to determine the actual VDCs it proposes to include in the city. After continuous consultations and final consensus from the targeted VDCs, KMC needs to prepare and submit the legal documents to MLD to **formalize the enlargement of its municipal boundary**.

The proposed land use plan should be able to estimate future land requirements of the city as well as identify the expansion areas and their land uses. Thus it would be logical to proceed with the boundary expansion process only after the plan has been finalized. Since the process involves primarily legal and administrative procedures, this could be done through the existing KMC institutions and would not entail any significant expenditure. The process is expected to take about a year.

c) Establishment of Regulatory Unit within KMC

The current weakness in the regulatory aspects of KMC is due mainly to the fact that this function is glossed over by the other functions of UDD such as issuing building permits. As a result action is rarely taken against violators, which has tended to encourage further violations. Therefore, there is an urgent need to **set up a separate enforcement unit within KMC** which can take necessary action against illegal or unauthorized constructions.

The regulatory and enforcement unit would need to be staffed with people with legal and engineering expertise. A section of the city police could be deputed on a rotation basis to support this unit and a permanent link with the District Administration Office would have to be maintained for the services of the civil police, whenever required.

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The unit would have to be **equipped with necessary demolition equipment, some of which could be shared with other units of KMC.** The time for preparation of specifications and tender documents, bidding and delivery of equipment will take about one year. KMC will also need to establish a central workshop for storage and maintenance of these as well

as other equipment. Altogether these are estimated to cost about US\$ 1 million. Alternatively, the equipment and workshop could be obtained from one of the government agencies willing to hand over such equipment or leased whenever required. If, however, purchase of equipment is contemplated, a thorough review of how it can be shared in other KMC works needs to be made.

3.2 URBAN ECONOMICS

3.2.1 Current Initiatives

The present situation of KMC is a result of evolving process. Recognizing it as a 'mahanagarपालिका' is a major step in creating a separate identity. Though the Local Self-Governance Act does not make any distinction between different categories of municipalities while defining duties, responsibilities, and authorities, it has created a basis for such distinctions in the coming days. The Local Self-Governance Act has also made some provisions for resource generation through collecting certain taxes, which so far used to be the central government taxes.

These initiatives at decentralization have provided ample opportunities for municipalities to expand their activities, and in this context institutional capacity building is the first and foremost requirement. Towards this direction, several program initiatives for institutional capacity building of municipalities are forthcoming. KMC is thus in a continuous process of developing its organizational strength, and as a result **there is a marked improvement in its international linkages and images. Its emphasis upon private sector participation** has helped not only in making them aware of municipality problems but also in confidence building. The efforts for building up and strengthening database will provide a firm basis for revenue collection and other enforcement measures.

3.2.2 Proposal for future projects

To materialize the vision set forth for Kathmandu city, more systematic and planned efforts have to be made. As a local government body, KMC has to take the lead, and pursue all concerned stakeholders towards building partnerships and moving together. For this, **KMC has to evolve itself as a pro-active modern organization** and assert for greater role and obligations. At the same time, KMC has to work more as a facilitator. Towards this direction, the following action plans are proposed on the basis of the analysis of existing situation and proposed strategies. They will consolidate and strengthen the efforts and initiatives made by KMC in the recent years.

3.2.3 Prioritized and Urgent Projects

The activities listed below are self-explanatory. Some of them are reform measures, and some require feasibility studies and investigation. Others call for technical backstopping for their implementation. Some of them could be straight investment projects. They can be conveniently packaged into the following four groups:

- A. Studies and Consultation Process
 - B. Data base and system design
 - C. Technical backstopping for institutional strengthening, and
 - D. Investment projects.
- A. **Identifying the comparative advantages** and subsequent identification of the **need of infrastructures** involve public consultation and studies. Likewise, assessment with regards to public borrowing and greater role of KMC in development activities has to be studied at the beginning. One individual expert can be employed for part time services to identify the studies in more specific terms and design the consultation process so that such activities can be undertaken within the organization and also by contracting out some of the jobs.
 - B. **Data base and system design** involves collection of information, preparing human resources for their processing and updating, and the system for regular updating. The need for the use of computers in all these activities calls for modern management design and highly qualified and experienced human resources. Support is needed to develop the system and put them in place.
 - C. Technical backstopping for institutional strengthening includes **regular programs of familiarization workshops for elected officials**, on-the job training, and pre-service training to introduce modern management concepts, upgrade skills, and orient the participants to the new role of KMC. It is proposed to provide a five years technical assistance program for this purpose. One local management consulting institution and/or firm can be used for this purpose. Support has to be sought from some donor agencies.
 - D. Some investment projects will be forthcoming in infrastructure development and social sector development. Some of them have to invite **supports from central government** and other donor agencies. Some of them can be developed **through private sector development.**

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Log frame for Action Plan

Comparative Advantages	Investment on Infrastructure	Resource Mobilization (KMC)	Social Sector Management and Spending	Social safety nets	Institutional capacity building
Short Term					
Identify comparative advantages - sports, tourism, IT, business center	Identify the infrastructure needs for these sectors and sub-sectors.	Consolidate existing resource mobilization-organization and collection methods	Make an initial assessment to manage social priority programs funded by central government.	Make an initial assessment to manage these programs funded by central government.	Familiarization workshops for elected officials to modern management norms and techniques
	Define the roles of central govt., KMC, and private sector in developing these infrastructures	Introduce service charges on solid waste management			Consolidate and strengthen Kathmandu City Planning Commission and integrate it with KMC organically.
	Policy for private sector involvement	Strengthen data base and institutionalize the system to update them.			Make KMC staff development oriented, and work as facilitators.
Medium Term					
	Mobilize resources - central govt. grant, donors' assistance, private sector investment	Examine the potentials of going for deficit budgets - public borrowing	Prepare a ground work for managing basic education and health facilities, and drinking water	Manage the social safety net measures implemented by central government	Assess the need for separate training and workshop unit and establish it.
Long Term					
			Greater KMC budget allotment for social sector programs	Examine the prospects of introducing social net measures	
			Relate this to resource mobilization authorities		
				Examine the role of KMC in developing and mobilizing resources for them.	

3.3 INSTITUTIONAL DEVELOPMENT

3.3.1 Current initiatives

With a view to improve the current institutional arrangement some major initiatives are ongoing which are presented below:

- a) ***Institutional Strengthening of Kathmandu Metropolitan City:*** With the technical assistance of ADB this programme aims to support KMC in building its capacity in order to keep pace with the growing demand for it to increase its roles and responsibilities in the context of the recent LSG Act-1999. This project serves **three main objectives:** improving the overall **organisational competence** of KMC; increasing the effectiveness of KMC in **mobilising and managing financial resources;** and improving the capacity of KMC in the **delivery of urban services.** Since its inception it has completed many activities especially in areas, such as, organisational management, financial management, corporate accounting, solid waste management and operations and maintenance of infrastructure.
- b) ***The Urban Governance Initiatives (TUGI):*** With technical assistance of UNDP, KMC recently launched a programme to introduce the principles of good governance in the area of environment management. The main objectives of TUGI include: strengthen KMC's capacity to **practice good governance,** particularly in the areas of environmental management, set best examples of good governance practice, **disseminate the lessons learnt throughout Nepal and South Asia,** **develop urban environment monitoring system** to enhance public participation and transparency for good urban governance of KMC and sensitise the elements of good governance to KMC's staff and its

stakeholders. The Initiative is dedicated to advance the five principles for making cities livable and sustainable. These are: **social justice, ecological sustainability, political participation, economic productivity and cultural vibrancy.**

- c) ***Kathmandu Valley Mapping Programme (KVMP):*** Initiated with the technical assistance of EU this Programme aims to improve the capability of KMC to carry out urban development activities in a sustainable manner. Its activities are to be undertaken within a four-year duration in the areas of **urban management information system, integrated action planning, integrated strategic plan, addressing system of KMC, city centre upgrading plan, city core heritage plan, solid waste action plan, GIS based digitised large scale map of Kathmandu and human resource development of KMC.**
- d) ***Regional Urban Development Office (RUDO)/ USAID Training and Support Program:*** This is an agreement between RUDO/ USAID and Nepal Administrative Staff College with a view to support KMC by providing **services and consultancy.**
- e) ***Others:*** MLD has recently developed three different formats for making by-laws based on LSGA 1999. Similarly, the Local Self Governance Financial Commission constituted under the High Level Decentralisation Committee has submitted its report for the implementation.

3.3.2 Proposed future activities and priorities

Before the actual implementation of CDS, certain activities need to be completed prior to its inception and some need to be completed within the first six months

<i>Foundation</i>	
Work should be started to gradually develop KMC as a strong and able local government. Formulation of clear objectives of the KMC	Before implementation of CDS
Communication of CDS objectives to the staff and electorate	Before implementation of CDS
Prepare capital city perspective paper of KMC	Before implementation of CDS
Initiate formulation of long term operational plan of the KMC including all current and futures plans, projects, programmes and activities	Within six months of CDS implementation
Reform Advisory body	Within three months of CDS implementation
Clarification of accountability of electoral and administrative staff	Prior to implementation of CDS

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Capacity

Increase interactions among elected political factions to support CDS implementation	Form committees composed of all political groups to implement CDS
Formation of a fair Vacancy Fulfilment Committee	Before implementation of CDS
Implement corporate accounting system	Before implementation of CDS
Establish management and financial information system	Within six months of CDS implementation
Recruitment of MIS experts	Within six month of CDS implementation
Formation of an independent Audit Committee	Before six months of CDS implementation
Restructuring of current organisation structure	Before implementation of CDS
Development of KMC-private sector committee	Before implementation of CDS
Construction of KMC building	Within a year of CDS implementation
Prepare performance contract with CEO	Before implementation of CDS
Development of Data Base System	After implementation of CDS
Introduction of performance evaluation system	Before implementation of CDS
Formation of CPC with the representation of line staff of KMC	Before implementation of CDS

Performance

Make staff and electoral body accountable towards CDS	Prior to the CDS contract
Develop mechanism for KMC to maintain contact with different stakeholders	Prior to the CDS contract
Make a complete list of NGOs and their objectives which are operating in the KMC area	After 3 months of CDS implementation

of the beginning of CDS. Institution related projects and activities are short-term in nature not exceeding six months before and after the implementation of CDS.

Since institutional components-foundation, capacity and performance- are the backbone of the implementation of the CDS, all of them are to be started with high priority and are assumed to be urgent activities.

3.4 URBAN TRANSPORT

3.4.1 Current Initiatives

Most of the existing city street system-a **system designed mainly for pedestrians and horse carts in the past and without any concept of motor-vehicle movement**-had been experiencing a series of shortcomings in road infrastructure development activities. These were further aggravated by growth in population, vehicular traffic and economic activities. In view of upward trend in all these areas and recognizing that there was a need to improve and upgrade urban infrastructure, in 1969, with the assistance of UN, a study was carried out for Physical Development Plan for Kathmandu Valley. The study recommended integrated plan for development including road transport by zoning for industrial, administrative, historical, housing, commercial areas, and considering unplanned urbanization growth, also recommended for development of new areas. Following this, with the assistance of Asian Development Bank, a study - Kathmandu Valley Urban Development Plans and Programs (KVUDPP) was carried out in 1990. The Study, taking into account urbanization growth in 1996-2006 and possible future growth, proposed land use and other integrated plans and programs including development of road networks. The road development targeted for the relief of traffic generating from outside the city core. Another study - Kathmandu Valley Urban Road Development (KVURD) was undertaken in 1993 by Japan International Cooperation Agency (JICA), concentrating mainly on development of road networks including other related activities in the Kathmandu Valley.

Substantial improvement in road sector had already been carried out with the assistance of the World Bank, Asian Development Bank and Japan International Cooperation Agency. Those worth mentioning are construction of bridges, widening/improvement of major roads in the valley including pedestrian overhead bridges in the city main road, and intersection improvement with signalized system including construction of four lane bridge. Apart from this, in some major streets of the core city area and historical zone stone paved roads had been constructed. Presently, implementation is underway for construction and widening of the critical sections of city major roads and service road along the ring road and also improvement of ten critical road intersections.

Although, Department of Urban Development and Building Construction, and Department of Roads are the executing agencies for the improvement works, KMC has played a vital role in implementation of widening and improvement of major city road network. Currently, KMC is implementing Kathmandu Valley Mapping Program with the assistance of European Commission to build the KMC's capability in planning and service delivery for urban development in a sustainable manner. Furthermore, to improve the KMC's capability for efficient, responsive and sustainable urban management, under a technical assistance from ADB the study for Institutional Strengthening Program is underway.

3.4.2 Potential Future Projects

Currently, 12 departments headed by the Mayor have been established to look after various functions. Under the present structure, urban transportation comes within the jurisdiction of two departments viz. Public Works - mainly concerned with the construction and maintenance and Urban Development looking after traffic management. Considering the anticipated future activities related to traffic and transport management it is suggested to strengthen the existing institution, with improvement of its manpower and physical facilities.

- a) With regard to traffic and transport study and implementation, it is recommended to consolidate traffic and transport management throughout the Kathmandu Valley and detailed study be carried out and a long-term transport master plan including road transport and accordingly short-term plan be formulated and implemented. In addition, a master plan for the construction of infrastructure of urban transport be formulated. In such master plan, **role of municipalities in construction, maintenance and repair of urban roads, and construction of roads to be improved under urban development program**, and the development of public transportation system reducing environmental pollution need to be addressed.
- b) Development is a continuous process. All facets of development need to be reviewed periodically. However, to meet the planned objective, currently, a short-term plan covering a period (2001-2003) and a long-term (2004-2015) are proposed. In the short-term plan firstly, transfer of ownership of urban road networks, traffic and transport management to KMC is recommended and secondly **doable**

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activities such as strengthening/improvement of the concerned agencies to build up the capability and relief of traffic bottlenecks such as improvement of intersections, parking facilities, pedestrian walkways, construction of planned link roads, etc., be taken up. In this period, feasibility study for future development including transportation system study should also be conducted. In the long-term plan, programs based on the findings of the feasibility studies need to be prioritized, funds arranged and accordingly implemented.

- c) The activities proposed for undertaking in the short-term are prescribed in 'Action Plan' presented in table C. **The long-term plan for infrastructure development depends on the findings of the detailed feasibility study.** Considering the time required for formulation of the project planning and detailed design, and pre-construction activities, and also considering the requirement of huge investment, major construction works are not envisaged to start within two to three years. In the circumstances, it is difficult to predict and prepare an action plan for the long-term. Hence, this has not been pursued in the report.

3.4.3 Priority Programs

From the analysis of the existing situation in urban transport sector it is envisaged that there are five areas which need to be addressed in the transport sector and priority is indicated in sequential order. Out of these, the first two need immediate action while the third and fourth activities should start following the first two and the remaining one could be undertaken at the later stage. The proposed programs are as follows:

- i. **Review of the existing Acts and Regulations** on transport sector and recommendation of appropriate policy measures with clear authorities of DOR, DOTM, TP and KMC for functioning as a Local Government.
- ii. Strengthening of KMC-PWD Section with system design for **development of Traffic Engineering,**

and Maintenance and Construction of road infrastructure, including strengthening of other concerned line agencies.

- iii. Undertaking feasibility study and recommend phased development of road network and transportation system in the light of increased urban traffic demand and density.
- iv. Analysis of the existing system and recommend for **promotion of various transport modes.**
- v. **Construction/Improvement of road network.**

With a view to assist the Government, KMC and the World Bank for assessment of the cost of consultant services to undertake the above mentioned tasks, the estimates have been prepared based on the services to be provided with a mixture of international and local consultants. It is reckoned that the first two studies will take about four and six months respectively costing in the range of US \$ 180,000 and US \$230,000. The third and fourth activities could be combined with implementation period of about 12 months costing approximately US \$ 800,000. Since the nature and scale of work under the fifth activity cannot be ascertained at this stage, the time frame and cost have not been considered.

Until such time, the strategic activities are implemented in line with the proposed 'action plan' as an interim measure, it is suggested that a **coordinating committee** composed of:

- City Mayor/ Dy. Mayor
- DG/DOR
- DG/DOTM
- Chief, Valley Traffic Police
- Traffic Engineer of DOR/KMC
- KMC-PWD Chief
- Bus, Truck and Light Vehicles Association representative
- Legal Advisor

is recommended, and proposed that this committee design a system to undertake steps to improve the current traffic and transport problems. It is also suggested that the committee meets periodically to oversee that the plan is being implemented satisfactorily.

TABLE: C

Development Activities (Short Term)

REF. NO.	ACTION DESCRIPTION	AGENCY RESPONSIBLE	PLANNED START BY	PLANNED COMPLETE BY	REMARKS
A.) Institutional Development					
i.	Review of present existing acts & recommendation of appropriate policy measures.	KMC/MOLD		Dec. 2001	Chief EA: MOLD EA: KMC
ii.	Strengthening of KMC-PWD Division following transfer of ownership of road network	KMC		Dec. 2001	EA: KMC
iii.	Strengthening of DOTM	MOLD		Dec. 2001	
iv.	Improvement of DOR functioning	DOR		Dec. 2001	
B.) Legal/Adm Measure					
i.	Finalize functional classification of road network.	KMC/DOR	July 2001	Dec. 2001	
ii.	Design a system for enforcement of vehicle inspection, traffic regulations and vehicular operation.	TP	July 2001	Dec. 2001	
C.) Facility Improvement (Traffic Safety)					
i.	Finalize and implement control on road side parking and control of activities on road side-	KMC/TP	Jan 2001	Sep. 2001	
ii.	Finalize and implement control on roadside on and off loading & illegal activities.	KMC/TP	Jan 2001	Sep. 2001	
iii.	Improvement of intersection facilities and bus terminals.	KMC	Aug. 2001	April 2003	
iv.	Improvement of pedestrians crossing & walkway. facilities	KMC	Aug 2001	July 2002	
v.	Finalize route regulation.	KMC/DOTM	June 2001	July 2002	
D. Road Development					
i.	Conduct feasibility study and finalize road development program.	DOR/KMC	Feb. 2002	Oct. 2003	Chief EA: DOR EA: KMC

3.5 HOUSING AND SQUATTER SETTLEMENTS

3.5.1 Current Initiatives in Housing Development

There are various initiatives being undertaken by the central government, KMC and private sectors in land and housing development. As an implementing agency for the central government, KVTDC has been implementing various land development projects in areas such as Lubhu, Sainbu, Sinamangal, Kamalbinayak, Harishiddhi within Kathmandu valley. KMC is also implementing a land-pooling project at Nayabazaar as a component of MIIP with the assistance of ADB. **Current major project of KMC is KVMP which is designed to enhance planning and management capabilities of KMC** through establishment of Urban Information Unit with digitized information systems, preparation of ward and city level integrated action plans incorporating city center upgrading plans.

As part of a private sector initiative, Ansal-Chaudhary Developers are implementing the Kathmandu Residency Project at Bagdol, which include residential complex with various ranges of apartment units catering to the middle income groups of people in Kathmandu. Since there is no mandate for the provision of dwelling units catering to lower income groups, the current development does not include facilities for low-income groups. However, with increasing facilities from government in terms of building permits, FARs, and sound policy, **there are possibilities of private sector participation for the provision of dwelling units for lower income groups.** This is also possible because these groups of households are also needed as various service providers within the vicinity of residential complexes. There are various real estate agencies operating as land brokers in the city, some of them are also involved in planned land development schemes such as Thankot land development, Gongabu land development etc.

Apart from Government and private banks providing loans to their employees, there are co-operative finances including Women's Cooperative Bank, Nepal Housing Development Finance Company, Nepal Housing and Merchant Finance Company, which provide loans for house constructions. Informal savings and credit initiatives at the local community levels can also be perceived as a potential source for financing house improvements rather than primarily for income

generating activities. **Incremental improvement of existing housing stock is more practical in low-income settlements where smaller investments could also bring better impacts.** Lumanti, a local NGO, is carrying out water and sanitation programmes to improve basic infrastructures in various low-income settlements including squatter settlements. Therefore, co-ordination is needed between KMC and all other agencies in the various initiatives being undertaken, whether they are in respect of land development, infrastructure provisions, finances or community awareness, in order to improve the overall housing situation of Kathmandu.

3.5.2 Proposed Potential Future Projects

a. Short-term Proposal: Plans and programs that are likely to be completed within first two years from the time of inception

- ❑ Update cadastral maps and land holding records (public, private and guthi land etc.) and develop a **mechanism for land-use monitoring system** for protection of public land from encroachment.
- ❑ **Preparation of urban land use map** (existing and proposed) according to land use classification (commercial, institutional, mixed commercial residential, light industrial, industrial, green belts, recreational, cultural) with zoning regulation (co-ordination with KVTDC and KVMP is required to avoid duplication)
- ❑ Publication of proposed land use maps and zoning regulation (Public hearings/stakeholders seminars, broadcastings) to sensitize general public, Maps to post in public open places (Market areas, parks etc.)
- ❑ Other related information should be made available to citizens as per their needs by charging them service fees.
- ❑ Training and involvement of UDD staff for the internalization of project activities (Mapping, land development, local area planning and improvement etc.). Provision of formal trainings could be conducted through co-ordination with IOE, UDLE and other institutions)
- ❑ Training of UDD staff on monitoring and **reporting of land use and construction violations**
- ❑ Preparation of digital record system of building permits issuance and completions as per types of building usage (Training of UDD staff if needed)
- ❑ **Revision of building bye-laws**, development and adoption of building codes, adoption of area specific

regulations, (e.g. heritage zones, declaration of heritage homes)

b. Medium-term Proposals: Plans and programs likely to be completed within 3-5 years

- ❑ Land and housing development programmes in partnership with private sectors (land development programs could include land pooling, guided land developments, land sharings and housing development programs could include **development of multi-storey rental housing units** and apartments units). This includes designing and implementation of projects. The role of KMC could be facilitating the locals in land acquisition process. Increase the stake of financial institutions with their share in the project investment.
- ❑ KMC to start feasibility studies for **new land and housing development projects**.
- ❑ Creation of revolving fund and allocation of municipal budget for housing and land development activities.
- ❑ KMC to **invest in social housing** (housing for elderly people, rooms for bed and cooking for short term floating population, women's dormitories etc.), this could be done in co-ordination with the central government. The Government could make available the land required for the development and private sector could participate in operation and management of the housing programmes.
- ❑ Develop **research on low-cost housing** technology and conduct pilot projects for demonstration. Institutions and student researchers could be involved in these projects.
- ❑ **Introduce special housing finance schemes** for low-income households including squatters. This includes operation of community savings and credit systems, formal lending through community collateral (ward representatives and local CBOs) for the purpose of house improvements.
- ❑ Develop and formalize the fragmented rental housing subsystem through rental housing act for the benefit and protection of both tenants and house-owners, as there is huge potential of rental housing in KMC as city's 30 % households are rented. Research on various types of rental housing needs has to be carried out, feasibility studies for rental **housing in mass scale to cater to the floating population** (students, domestic helpers, government employees, labour migrants etc.)

c. Long-term Proposals: Plans and programs that are likely to be completed within a period of 5-10 years

- ❑ **Resettlement and rehabilitation schemes for displaced and freed bonded labourers** (Kamaiyas) as they are seen as threats in terms of increasing squatters in KMC, for which MLD and MPPW has a major role to play.
- ❑ Social and economic development programmes should be made specially focusing these target groups such as training for skill enhancement, technology transfer, and financial backing to generate self-employment.
- ❑ **Periodic review of housing systems**, housing finance mechanisms and make necessary amendments in Acts and regulation.

3.5.3 Prioritized Programmes and Projects

- ❑ Land use maps and plans with **zoning regulation**, their publication and implementation
- ❑ **Review of urban land policy** and improve urban land taxation system
- ❑ Involvements of UDD staff in planning activities, information systems, formal training for them to plan and implement land and housing development activities.
- ❑ **Demarcation of public land**, protection of public land and buildings for appropriate uses (land - park, green belts and public open places, buildings for cultural museums, crafts show-rooms etc.).
- ❑ **Implementation of UN Park along Bagmati River** bed in co-ordination with KMC and squatters, inclusion and management of squatters within the park development plan.
- ❑ Land and housing development programmes within and outside KMC, increase stakes of KMC in these programmes by promoting partnerships with private sector (**sites and services, multi-storey apartments and rental units**)
- ❑ **Management of squatters**, upgrading of slums and squatter settlements (classification of settlements as per their types for which option would be favourable in each case to insure minimum demolition for upgradation)
- ❑ **Initiate settlement upgrading** and regularization schemes as pilot projects for squatter settlements at Shankhamul, Ramhiti, Subigaon, Dhumbarahi and Radhakrishna Chowk

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Slum/Squatter Action Plan		
S.NO.	ACTIVITIES	ACTORS INVOLVED
1.	Inventory of existing slums and squatter settlements, gather population, household and other socio-economic information.	KMC, NGOs, CBOs
2.	Classification of slums as per conditions and determination of the extent of upgradation required	KMC, Professionals, Researchers, NGOs
3.	Minimum regulation for rental housing as rental slums are predominant	KMC, house owners, tenants.
3.1	Provision of minimum basic services <ul style="list-style-type: none"> <input type="checkbox"/> Access <input type="checkbox"/> Water supply <input type="checkbox"/> Electricity <input type="checkbox"/> Toilets <input type="checkbox"/> Safe disposal of wastes 	
3.2	Structural conditions to ensure minimum safety factor for users/tenants	
3.3	Maintenance of building structure as well as other facilities regularly by users	
4.	Preparation of slum upgrading plans based on point 2 and implementation.	
5.	Classification of squatter settlements in terms of their location, extent of development and safety of site	KMC, Professionals/planners
6.	Identification of settlements or houses which need to be relocated to other sites due to development pressures, environmental hazards etc.	KMC, line agencies
7.	Settlements to be upgraded should be studied in detail of both physical and social characteristics.	KMC, NGOs, Researchers
8.	Prepare settlement improvement plans and programs which include <ul style="list-style-type: none"> <input type="checkbox"/> Regularization of plots if needed <input type="checkbox"/> Infrastructure layouts and extensions <input type="checkbox"/> House improvements/ construction of new structures 	KMC, NGOs, CBOs
9.	Mobilization of communities/households for participatory actions	KMC, NGOs, social workers
10.	Mobilization of financial and technical resources	KMC, Donor Agencies, NGOs, Professionals.
11.	Provision of tenure security on the basis of long term leasehold or collective ownership	KMC, NGOs, Legal experts, communities
12.	Low cost alternatives affordable to users (squatters) should be developed and implemented such as standard communal facilities (shared toilets, community taps and wash areas)	KMC, Professionals/planners, CBOs
13.	Prepare alternative plans such as land sharing ¹ in commercially viable sites for example Ramhiti, Shankhamul and project feasibility to be carried out.	KMC, professionals and private consultants

¹ Land sharing is an option for squatters carried out in Thailand where squatted land is shared between land owner and squatters. Part of land commercially viable is sold and developed into commercial use while squatters are re-housed in latter portion of land with densification as smaller plots of 20 sq mts in size are sold to each households. Cross subsidy is given through selling of commercial plots and long term payment period for plots of land.

3.6 MUNICIPAL SERVICES

3.6.1 Current Initiatives

The World Bank:

At present, World Bank is involved with City Development Strategy (CDS) and is also involved in numerous development activities, which are not limited to the cities alone but across the country as a whole. The World Bank has prepared a Country Assistance Strategy for Nepal to overcome the constraints of development in Nepal. Road Improvement Programs (RIP) is one of the important program in the road sector.

Asian Development Bank:

ADB Urban Environmental Improvement Project has many components related with environmental improvement in the urban areas. ISKMC is assisting capabilities of Kathmandu Metropolitan City.

Ministry of Physical Planning & Works:

Melamchi Drinking Water Supply Scheme is one of the most important projects. Bishnumati link road and the road infrastructure programs of Department of Roads including pothole repairing within Kathmandu Metropolitan City is another. Outer ring roads are in planning phase under Department of Roads.

Ministry of Local Development:

Involvement of private sector in solid waste management is the major MLD and SWMRMC programs. Operation of temporary dumping site at Kalimati river bank and infrastructure development of Okharpouwa landfill site are the current programs of MLD.

Ministry of Population and Environment:

More than 20 years old vehicles are to be displaced from Kathmandu Valley through DOTM including regular vehicular emission test of the vehicles.

JICA:

As per the request from the HMG, JICA's study team was here in Kathmandu for the investigation of water supply situation in Kathmandu Valley and Japanese government is willing to help in construction of new water treatment plant and several overhead tanks in the city area. The study and investigation is going on.

UNDP:

TUGI and RUPP are the current programs of UNDP in the urban development activities in Kathmandu.

European Union:

KVMP programs are expected to have a broader impact on Kathmandu municipal services over the long term. The activities are mapping, property survey, house numbering, solid waste action plan, city center upgrading plan and various other municipal sectors including municipal finance.

3.6.2. Proposed Potential Projects

Road Works:

Road widening in the following streets since space is available for expansion and they are a) Lainchour - Sorakhute, b) Ratnapark - Bagbazar and c) Pako-New Road area.

Water Supply:

Construct weirs along the width of the rivers at proper places to create setting pools of water and to arrest sand in the monsoon period. Melamchi project will be most important of all the activities in augmenting water supply.

Drainage:

Drainage improvement should be done in the following areas: Tebahal, Sundhara, Khedhal, Battisputali, Anam Nagar, Bhatbhateni; Tukucha Khola, Maiju Bahal; Chabahil, Banski Jhyang (New Plaza), Bramha Tole, Thapathali Maternity Hospital; Bagmati, Maharajgunj; Tukucha Khola.

Storm Water Drains:

Clean blockage of sewer in the following areas: Tukucha Khola, Samakhusi Khola, Ghattekulo, Dhobi Khola, J.P. High School Area, Tahachal, Kalimati, Kuleshwar, Ring Road, Kamal Pokhari, Tukucha Khola, Baneswor (old barracks), Dhobi Khola, Sarkigaon Area, Naya Baneswor, Balaju, Ring Road, Bishnumati, Kapan Marga, Raniban (behind Shangrila Hotel).

Solid Waste:

Out of the 310 tons/day of solid waste, 210 tons are organic, hence, composting is the feasible option. KMC should initiate process with stakeholder immediately in this direction.

Streetlight:

Municipality should contribute one third of capital cost and pay future electricity charges with involvement of stakeholder. NEA should initiate innovative streetlight schemes with proper planning, design & installation and should share two-thirds of capital cost.

City Greening:

The occupied open spaces by traders and squatters should be properly managed immediately including

3.7 HERITAGE CONSERVATION

3.7.1 Current Initiatives:

The concern for conservation and preservation of Heritage is widespread and growing. Although the overwhelming demand of the sector and its usual treatment as a low priority are at counter-purposes and the impact on heritage preservation has remained minimal, still several national and local institutions, both in the governmental and non-governmental sectors, have several ongoing initiatives that are notable. **It is also notable that KMC has started taking direct action on heritage conservation for some time now and popular participation in its projects has also grown consistently.** The participation of the non-governmental sector is obtaining from a very diverse section, ranging from press to volunteer youth groups, and the involvement also ranges from educational and awareness raising, creating pressures for conservation action as well as financing of hard action. The largest ongoing conservation work is the reconstruction of Akash Bhairava temple at Indrachowk, an undertaking of KMC and with components of popular financing by the devouts. **KMC has also initiated dialogues with local committees now collecting visitor charges to monuments to introduce tourist friendly options.** KMC has also started cooperative actions in participation of NGOs for conservation and preservation of heritage.

3.7.1.1 The following are some of the important initiatives in the central government sector:

DOA: Department of Archaeology

- (a) **Classification of Buildings** in private possession and legal provision of assigning responsibilities
- (b) **Inventory of other public monuments** from later periods, of elements so far unlisted and of heritage buildings or elements in private possession
- (c) Reconstruction of one monument in Kathmandu Durbar square

GS: Guthi Samsthan

- (a) GS is planning to **set up a Museum** to exhibit Jewelry of temples in its possession.
- (b) GS is reviewing the deployment of its properties at KVWHS starting with Pashupatinath monuments zone

DUDBC: Department of Urban Development and Building Construction

- (a) Urban Development strategy for the valley, with a component on heritage conservation, has been prepared and ready for government review.

NTB: Nepal Tourism Board

- (a) NTB is preparing to promote conservation through its publicity campaign and has issued brochures to tourists on KVWHS.

3.7.1.2 Within the municipality, even with its Heritage and Tourism cell in infancy, the following initiatives are notable:

- (a) KMC is **building its central office at Teku with traditional architectural idioms**
- (b) KMC is planning to take **action to affect pulling down of heritage incompatible buildings** located in monuments zones starting with buildings in public ownership. It is planning to set up a revolving fund to invest in such actions and follow up with heritage friendly redevelopment
- (c) KMC has completed the Bishnumati track to divert through traffic on Tengal-Bhimsenthan street
- (d) KMC is restoring some water conduits as water supply elements
- (e) Redevelopment of Pako street as landscaped pedestrian zone is planned
- (f) Ward 5 is **inventorizing Heritage of Hadigaon** and its other Wards are expected to follow

3.7.1.3 NGO sector

Initiatives for awareness development for heritage protection, preservation and conservation has been growing steadily. **Nepal Heritage Society and Kathmandu 2020 have been in the lead.** Nepal Federation of Environmental Journalists have been active through their reporting, watch dog publicity and media magazine, **Aankhijhyaal**. Some new NGOs such as the new Chhusya Bahal Guthi and Jyapu Mahaguthi have initiated moves to extend conservation action into areas other than monument conservation.

3.7.2 Proposals for Future

The analysis of the situation, current initiatives and stakeholder preferences have been used to propose the

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following projects. Institutional strengthening, inventory preparation and preparation of coordinated action plans so as to make conservation of heritage effective also on **presenting an appropriate image of the city**, mutual strengthening of tourism and heritage and cultural process in citizen's living are key action areas proposed.

3.7.2.1 Short-term or Immediate Actions

- (a) Formulation of detailed **policies and action plan by KMC** in consultation with DOA, NTB, GS, NHS, Kathmandu 2020 particularly on ways of linking other cultural parameters, both tangible and intangible into the current Monuments conservation approach.
- (b) KMC: To enter into negotiations with NTB/ individual businesses to **take 4P program** to WHSMZ and other heritage nodes in the core
- (c) KMC, GS, wards and CBOs: joint **inventory of guthi property** and action identification
- (d) Heritage site **management at all the four KVVHS monument zones** within KMC
- (e) KMC and NTB joint project: training, marketing and **promotion of craft products**
- (f) KMC heritage inventory project
 - i. Consolidation of existing inventories of various elements such as monuments, water structures, festivals, archaeological sites, ward level detailed **heritage lists, etc.**
 - ii. Inventory/ research of festivals, rituals, food, traditional products, bhajans, etc.
 - iii. Research project: archaeological exploration of Bhagavan Bahal, Naxal; Tebahal exploration, Tebahal; listing of potential archaeological sites
 - iv. Cultural demography research project: **inventory of clan heritage spots** and activities
- (g) TA to KMC
 - i. Preparation of action plans to **link heritage conservation and alleviation of poverty**
 - ii. **Preparation of desirable changes** in various Acts and proposal to parliament.
 - iii. TA: **Revision of building bye-laws** for application to heritage spaces and nodes
 - iv. Study and **define an acceptable definition of traditional and heritage friendly businesses**
 - v. Study of '**Transfer of Development Rights**' arrangements / detailing appropriate TDR regulations for application at heritage areas within KMC
 - vi. To start making **grants to listed festivals, heritage based industries etc.**

- vii. Strengthening of KMC Management for **implementation of Heritage Clearance Policy**, zoning and usage permits
- (h) TA to other agencies /NGO
 - i. Policy and Innovative **Action plan for Guthi Samshan** for land, jewelry and festival management.
 - ii. Preparation of plans for commercial development as counterpoles to Mahabouda Tibetan Market, Jamal and Ason, Pachali, Bhimsenthan, Raktakali, Chettrapati, etc. for KMC.
 - iii. Policy application of directing **development of tourism infrastructure within heritage buildings** in private possession at Heritage sites for NTB

3.7.2.2 Medium Term or Follow up Actions

- (a) KMC Project: **city museum** at Hanumandhoka
- (b) KMC & GS: Museum of Jewelry of Temples in KMC
- (c) Development and **promotion of traditional sweets**
- (d) Stone water conduits rehabilitation around Rani Pokhari
- (e) KMC: **traffic time zoning** for wheeled vehicles including pull carts
- (f) KMC: Pedestrianization of key bridges at Luti Azima, Kankeswori, Sovabhagavati.
- (g) KMC: **Actions on incompatible Public buildings** and follow-up with similar actions on Private buildings

3.7.2.3 Long Term or On Site Actions

- (a) KMC: investments at Machali, Brahmatol, Bhotebahal, Dhobichour, Kankeswori, etc. on Heritage conservation and poverty alleviation
- (b) **Demonstration projects:** Redevelopment of Bagbazar/Dillibazar street, Redevelopment of Paropakar area, Dallu Market center etc.
- (c) Project: **heritage park at Ranipokhari** south embankment
- (d) KMC/Traffic Police: Extension of traffic and pedestrians management within the core
- (e) Demonstration Project: Consonant MZ development Ward no 19/20.

TA:

- (a) **Staff development** for Heritage Conservation and Tourism development
- (b) Support to KMC for Implementation of TDR regulations.

3.8 COMMUNITY DEVELOPMENT

3.8.1 Current Initiatives

Community development process encompasses the collective efforts of certain groups of people to uplift their livelihood. The multi-dimensional issues related to community development process could be regarded as one of the big hurdles to bring expected results within the urban cities. **The complex socio-cultural environment of KMC demands many forms of interest groups and organizations to initiate different community development activities at various levels.**

The historical events and evolutionary process of civilization in Kathmandu valley reveal that it has experienced many types and forms of social welfare activities for the betterment of its citizens. Presently, KMC has 12 departments within its organizational structure to undertake various community development activities directly or indirectly. The Social Welfare Department being the prime sector to look after community development program has very limited activities under this heading. The indifference toward CD activities of the mass populace, inadequacy of financial and human resource along with weak managerial capacity has highly constrained the CD activities in KMC. Given its present circumstances and environmental stress, **coordination and integration of programs is one of the main challenging issues of KMC.** To take a prominent lead in the development process of the city, KMC should try to provide additional momentum to CD programs in the city by reorienting and restructuring its present form in the following prescribed way.

3.8.2 Roles of Different Stakeholders

As stated earlier many groups and organizations function at different levels to achieve various community development objectives in KMC. To achieve the overall objective and bring a synergetic effect there is a need for an integration of the activities of these entities. KMC's Social Welfare Department could play the role of a catalyst to streamline their efforts in achieving their development objectives by defining the following roles and responsibilities.

- a) KMC should take a lead role in formulating various strategies and action plans by prioritizing its sectoral needs. KMC should obtain support to initiate its development effort collectively with different stakeholders and partner organizations. **The prime**

role of the department should be to facilitate the community development process at the local level with minimal intervention during execution of the programs.

- b) Ward committees should be developed as the main coordinating body to initiate various community development programs at the local level. Coordinating and supervising the development initiatives at the local ward level should fall under their domain.
- c) Local NGOs, civil societies, user's groups, guthis and other people's organizations should be made responsible to implement their community development initiatives.

3.8.3 Proposal for Future Project

The present environment scanning of KMC in relation to its supra system (CD perspectives) reveals that **there lies a great potential to improve the community development process** within KMC. The following assistance programs are recommended to develop intra-organizational capacity and preparing them to play a more effective role in CD.

3.8.3.1 Short-term

- Setting clear vision, mission and objectives of the departments.
- Intra-organization environment scanning (SWOT analysis of the departments) along with the need for institutional capacity building process.
- Formulating policies and plans by prioritizing subject, areas and course of actions.
- Reorientation and capacity building of the departmental staff and ward committee members,
- Networking and linkage development with prominent partner organizations and stakeholders.

3.8.3.2 Mid-Term

- Social mobilization and awareness campaigns at the local level
- Capacity building at the ward level (organization and human resources)
- Creation of documentation and resource data bank at the center and ward level.
- Joint agreement and collaboration to initiate community development progress.

3.8.3.3 Long-Term

- Creation of resource pool to establish and initiate innovative community development projects on its own.
- Install mechanism at the local level to evolve and sustain various community development activities at the different wards.

3.9 ENVIRONMENT

3.9.1 Current Initiatives:

The individuals and organizations dedicated to the cause of Kathmandu's environment protection are large and diverse. They play a very important role in awareness, advocacy and resource mobilization activities. There are scores of NGOs, private companies, INGOs, bilateral and multilateral agencies dedicatedly involved in improving the existing situation of Kathmandu Valley. **KMC's own initiatives are laudable and visible.** Its partnership programs have made significant contributions and the **public at large is gaining confidence in private sector participation activities.**

Of all the initiatives, central government led air pollution control programs have proved to be significant. The interventions have focused on vehicular emission control programs. **Similarly, industrial location policies and efforts to improve water supply (quality and quantity) are gaining tremendous public as well as financial support from donor community.**

The Ministry of Population and Environment is the key institution that can make a difference towards improving the situation in Kathmandu. **KMC, together with other valley municipalities have formed a small group to initiate collective programs and support the government in implementing various plans and programs of the central government.** The NGOs include a very diverse mix of leading organizations

involved in advocacy (NEFEJ, Pro-Public, SEJ etc.) , research (TU, DISVI, NESS, etc.), communication (NTV, Sagarmatha F. M., Metro F. M., Daily News Papers etc.), capacity building (Academic institutions and training centres like staff college, SchEMS, PEC etc.) to name a few. Some of these are among the most prominent organizations of their kind in Nepal and play a major role in protecting the environment in the valley.

Some of the important initiatives at the central level in environment sector are:

- (i) **KMC to implement CDS** to improve the overall quality of environment (KMC, MLD);
- (ii) Water augmentation through **Melamchi Drinking Water Supply Scheme** (MPPW);
- (iii) **Displacement of vehicles that are more than 20 yrs. old**, from the valley (MOPE, DTM);
- (iv) Privatization of **solid waste management** (KMC, MLD);
- (v) **Stringent EIA procedures** for development activities inside the valley (MOPE, Sectoral agencies);
- (vi) **Relocation of polluting industries from Kathmandu valley** (NPC, MI); etc.

Some of the activities of the NGOs (**representative samples**) are given below:

It is evident from the above that current initiatives to protect Kathmandu's environment are appreciable and need sustained support from all sectors. However, they all have tended to be variegated specially NGO

S.N.	NGO	ACTIVITIES
1.	Pro-Public	Advocacy and awareness programs on air pollution, solid waste management, Rani Pokhari conservation, Godavari Marble Industries impact mitigation, noise pollution etc.
2.	NEFEJ	Promotion of city greening, infrastructure maintenance, awareness programs through Sagarmatha F.M. station and NTV, interaction programs etc.
3.	DISVI	Water quality monitoring in association with NWSC, air quality monitoring in collaboration with DANIDA, surface water treatment with financial support from KMC etc.
4.	FNCCI	Re-structuring of environment committee with a full time environment specialist; support to city greening projects; cleaner production initiatives in close collaboration with EMS/ DANIDA, public awareness programs etc.
5.	HAN	City beautification projects in collaboration with KMC; heritage protection, advocacy and awareness programs through seminars, rallies and visual communications etc.

CITY DEVELOPMENT STRATEGY

initiatives, and are not being well coordinated. Since, environment protection has significant inter-sectoral activities, it is useful to **consider the major issue of coordinating the activities led by KMC**. This is recommended to bring greater effectiveness to the role that NGOs and other institutions can play in improving the situation in KMC areas.

Existing initiatives at the NGO level need to **shift from advocacy to concrete action** oriented and visible projects to build up confidence. The adoption of participatory methodologies calls for greater emphasis on successful completion of projects, rather than in awareness programs alone. Negotiations, conflict resolutions and other interpersonal skills will have to be developed within the KMC for successful mobilisation of participatory programs.

3.9.2 Proposal for Future Projects:

(a) Short Term

- (i) Review of Kathmandu valley development plan 2020 and implement major recommendations.
- (ii) **Finalize the landfill site** for solid waste management. MLD should finalize the selection of private company for recycling. Provide land and other infrastructure for establishing the plant. This is an urgent and prioritized activity.
- (iii) **Discuss CDS and CAP with donor community** and financial institutions. Start administrative procedures for projects that have funding potential.
- (iv) **Identify implementable standards for drinking water supply. Demand drinking water quality standards from its suppliers, mainly NWSE.**

- (v) **Declare old buildings as "heritage buildings"** and develop a criteria for recognition and incentives.

(b) Mid-term

- (i) Initiate a process of discouraging and **relocation of polluting economic functions to disperse pollution, population and profits outside the KMC area.**
- (ii) Identify and **prescribe pollution standards for air and noise pollution.** Demand standards from responsible agencies of the central govt.
- (iii) Initiate treatment plants along the river systems to **prevent direct discharge of sewage** into rivers.
- (iv) **Develop an information center** in KMC headquarter.
- (v) **Improve co-ordination mechanism** with central govt. agencies and private investors.

(c) Long-term

- (i) **Improve ownership of land through expanding political boundary** for essential functions such as solid waste management, recreation, administration etc.
- (ii) **EIA procedures should be made mandatory** for construction activities within KMC.
- (iii) Initiate **action oriented research projects.**
- (iv) KMC with the help of other agencies, should take immediate steps to **develop in KMC's citizens an "environmental ethic".**
- (v) Initiate **process of "polluters pay" principle** in KMC.

3.10 MUNICIPAL FINANCE

3.10.1 Current Initiatives

There are several institutions involved in the urban development arena, working in different levels ranging from national level to the local level. Ongoing current initiatives in this sector are as follows:

a) The World Bank:

At present, the World Bank is involved with KCDS and is also assisting in numerous development activities, which are not limited to the cities alone, but are spread across the country as a whole. The World Bank has prepared a Country Assistance Strategy for Nepal to overcome the constraints of development in Nepal.

b) The Asian Development Bank:

ADB provided grant and loan assistance to KMC for various projects in the past, and is currently involved in the ongoing Institutional Strengthening of KMC program.

ISKMC Program started from September 1999 with technical assistance from ADB. The goal of this program is "Improving the capabilities of Kathmandu Metropolitan City for efficient, responsive and sustainable urban management in the Kathmandu Metropolitan Area"

Similarly, ADB assisted the central government in urban development activities. The ADB had provided a technical assistance to HMG to prepare the Nepal Urban Sector Strategy (NUSS). The project commenced in February 2000 and completed in July 2000. The NUSS provided an overall urban development policy for Nepal including the development of intermediate and lower order cities.

Another ADB project related with urban development of Nepal is Urban and Environmental Improvement Project. This project also has many components related with environmental improvement in the urban areas.

c) UNDP

UNDP is also involved in the urban development activities in Nepal through various plans and programs such as TUGI, RUPP, and urban indicator program/UMP.

d) European Union Kathmandu Valley Mapping Program

This is an integrated urban development project assisted by the European Union, which commenced in August 1998 and will continue for 4 years. This program has three components:

- Urban Planning
- Mapping
- Training in urban planning and management

The activities of KVMP involving mapping, property survey, house numbering and integrated action plans will definitely help various municipal sectors, including municipal finance. The above activities will provide a strong database for various taxes, including integrated property tax, and will result in more efficient collection. Similarly, local area plan and integrated action plans formulated under the program are expected to improve expenditure planning. Therefore KVMP is expected to have a broader impact on municipal services over the long term.

e) UDLE/gtz

Another major key actor involved in the urban sector development in Nepal is Urban Development through Local Initiatives. It is a Nepal-German collaborative effort which assists the municipalities of Nepal in all aspects of urban development ranging from consultancy services to plan implementation.

f) Kathmandu Valley Development Strategy

The Kathmandu Valley Town Development Committee (KVTDC) is in the process of preparing the Kathmandu Valley Development Plan 2020. It will prepare a strategic plan for the whole valley, which will be used by the individual municipalities and VDCs as a guideline to develop detailed action plans and programs. The plan is still in its early phase of development.

g) Local Authority Fiscal Commission

Local Authority Fiscal Commission has been established under the Ministry of Local Development to explore the issues and problems of local authorities and suggest the means of improvement. Various stakeholder meetings

Proposal for future projects (short term):

ACTIVITIES	ACTION PLANS	ACTORS/DONORS
1. Negotiate with NWSC in sharing the drainage service charge collected from Municipal system.	a. Design a plan to bring all concerned stakeholder into a table. b. Implement the plan and negotiate.	MLD, NWSC, Ministry of Finance, Ministry of Water Resources, Ministry of Physical Planning & Works, other municipalities of the Kathmandu valley.
2. Analyze "Ability to Pay" and "Willingness to Pay" capacities.	a. Design a study project	KMC Departments: Finance, Revenue & PWD and Local consultants.
3. Monitor and control budget expenditures to minimize the potential of expenditure overrun (revenue shortfalls).	a. Develop budget variance analysis mechanism b. Regularly measure variances accordingly; and c. Take appropriate corrective actions in time.	KMC Board, Budget Committee, Executive Officer, all the departments & Wards.
4. Study revenue potentialities for realistic multi-year financial planning and resource mobilization.	a. Design a study project	KMC Board, Finance Department, Revenue Department, PWD, UDD (+other depts.) and Local consultants.
5. Analyze KMC's debt-carrying capacity.		
6. Use concessional loan finance.	Negotiate with TDF for concessional loan finance	KMC Board, TDF, Executive Officer, Finance Officer
7. Prioritize the projects and determine the cost of detailed feasibility studies.	a. Conduct feasibility study b. Evaluate and decide about the number of projects to offer.	KMC Board, PSP Unit, Local Consultants
8. Develop and implement procedures to control and settle outstanding advances.	a. Form a high-level task force with needed authority from the Municipal Council. b. Examine and evaluate in detail all the pending cases. c. Determine criteria to regularize the genuine cases. d. Take necessary bold steps (stern action) to solve it. e. Adjust the books of account accordingly.	Municipal Council, KMC Board, Executive Officer, high level task force, Finance Department
9. Organize intensive education program on accounting process, practices and internal control; to all concerned including elected representatives.	a. Develop a training calendar. b. Ensure full participation and conduct training. c. Evaluate & measure training effectiveness. d. Suggest necessary improvement and incorporate it in the next training program.	Finance Department, Revenue Department, CAS implementation unit, Local Consultants
10. Organize and strengthen the internal audit unit with approved human resources.	a. Assign immediately the approved human resources to the internal audit unit. b. Conduct orientation program jointly to them and others directly related. c. Apply internal control measures effectively in accordance with LSGA.	KMC Board, executive officer, KMC departments and wards, Internal Audit Unit.
11. Prepare internal audit and control bylaws. Conduct awareness campaign for KMC employees and elected representatives.	a. Form a KMC board committee to prepare bylaws. b. Prepare internal audit and control bylaws, get approval from the board and implement it.	KMC Board, Executive Officer, and Internal Audit Unit.
12. Develop policy about periodic reporting and dissemination of financial reports.	a. Determine the statements and reports, which need to be published periodically at different levels and implement it.	KMC Board, Executive Officer, wards & departments

Proposal for future projects (medium term):

ACTIVITIES	ACTION PLANS	ACTORS/DONORS
1. Privatize the solid waste collection in all the wards in a phased manner	a. Design detailed programs to privatize the solid waste collection in all wards. b. Implement it in different phases.	KMC Board, Private Sector, KMC Environment Dept., MLD
2. Prepare operating and capital budgets with 5-year budget horizon.	a. Prepare Inventory of Capital Infrastructure Assets. b. Develop Investment Plan. c. Prioritize Ward-level projects and town-level projects. d. Develop financing plan. e. Develop Operating and Capital Budget. f. Develop control system.	KMC Board, Executive Officer, wards & departments, consultants
3. Develop framework for bulk distribution of electricity with the private sector involvement.	a. Define the role of KMC and private sector regarding bulk distribution of electricity. b. Decide how the system could be tied up with resource mobilization initiatives. c. Design sustainable framework of operation.	KMC Board, Executive Officer, private sector, and consultants
4. Design sustainable automation system for accounting and financial reporting, establishing linkage with proposed integrated revenue collection system.	a. System requirement definition. b. Business & Technical system design. c. Installation of equipment and computers. d. Implementation and operation. e. Maintenance of system.	KMC Board, Executive Officer, Finance department, and consultants

Proposal for future projects (Long term):

ACTIVITIES	ACTION PLANS	ACTORS/DONORS
1. Develop a special project to design and implement the Integrated Revenue Collection System.	See section 5: Detailed Proposal, a Case Study	KMC Board, donor agency, Executive officer, finance & revenue department
2. Demand a separate Act for KMC, which will guarantee complete fiscal autonomy.	Approve the policy from the Municipal Council and initiate the process	Municipal Council, KMC Board, MLD, all other concerned government agencies and stakeholders.

have been concluded and the final report is due to be published in the near future.

3.10.2 Proposal for Future Projects

On the basis of strategies proposed, various action plan proposals are outlined in the following pages. These action plans range from short to long-term. Short-term plans could be commenced immediately and should be completed within 12-18 months. Mid-term projects are expected to be completed within three to five years. And long-term projects will go beyond 5 year's time horizon. The plans are given in the following tables.

3.10.3 Priorities for Future Projects

The number one priority for KMC under municipal finance component at present is the resource mobilization initiatives. Since it is a continuous process, and a critical one, KMC must be serious about developing a special project to design and **implement the Integrated Revenue Collection System**. As it is evident that **KMC's own revenue source is not even enough to pay the salaries of its employees**, providing other municipal and infrastructure services appears to be a distant dream. The local development fee, which KMC receives from the government, is of temporary nature and there is no guarantee that it will continue for a considerable period of time. *KMC, therefore, should not rely on this grant and must gear up for a comprehensive or integrated revenue collection drive.*

The second priority of KMC should be to **privatize solid waste collection in all the wards** in a phased manner. Solid waste management is the primary responsibility of the KMC, and involving private

sector or NGOs in this sector could help fulfill that responsibility. KMC should play an instrumental role of facilitator, controller and regulator in this sector and basic operational functions should be assigned to the private sector or NGOs. This will have multifold effects. First, reduction of almost half of KMC staffs will trim the organization and permit it to focus on its new role of facilitator, controller and regulator. And second, the private sector could better manage solid waste collection. So it could be envisaged as a win-win situation. *The most difficult part for KMC would be the retrenchment of the employees. It could be managed by developing and implementing a detailed program. To allay fears associated with change, awareness and communication among the employees is important and the KMC board should play a catalyst role in this regard.*

The next priority should be **preparation of operating and capital budgets with 5-year budget horizon**. Investment plans are lacking in KMC. There should be maximum involvement of citizen participation in the true spirit of decentralization, while formulating such investment plans. It is essential to have the approval and ownership of the people for its success and sustainability. In addition, various financing options should be considered while developing financing plan for such investment plans.

Similarly, Accounting and Internal Control should be given due priority. Efforts should be made to establish a program to **upgrade KMC's accounting and financial reporting to international standards**.

Finally it could be concluded that, the successful implementation of all the strategies mentioned in the CDS municipal finance component would **improve the bankability of KMC** and would also help achieve its mission.

4

Integrated Programs

4.1 METHODOLOGY

In addition to the sectoral approach of developing programs for the CDS, integrated packages comprising of interlinked and mutually supportive programs, geared towards achieving specific goals, have been proposed. Location specific and spatial packages had also been contemplated. However, since most of the programs proposed for the CDS were at the strategic level and had not been detailed out, it was considered prudent to develop location specific packages only after the detailed studies proposed in the CDS had been carried out. Hence only goals-based integrated packages have been included in the CDS. It will be an easy task for KMC to proceed with the CDS in accordance with the prioritized goals and recommended sectoral strategies to achieve the goals in the future.

The integrated packages have been derived from the analysis of the goals achievement matrix of the ten individual sectors. All the programs proposed under the individual sectors, identified as contributing towards the achievement of a specific goal, have been assimilated into a single package. The total number of proposed programs under each goal has been used to rank the different goals. Many programs were found to be repeated but they have been counted each time during the ranking process, since repetitions were considered

to be further confirmation of the importance of the programs. The ranking of the goals was assumed to reflect their relative priority.

A general analysis of the summary of the goals achievement matrix has identified the following order of priority for the different goals:

1. Improvement of KMC's financial status and managerial capacity to ensure good urban management (An important and vital prerequisite for CDS implementation);
2. Planned and integrated development of land, infrastructure, housing and transport;
3. Improve and conserve/preserve the natural and manmade environment to keep the city clean, green and healthy;
4. Conserve/preserve the physical and cultural heritage of the city;
5. Promote private sector involvement in city development works;
6. Improve coordination among agencies involved in development activities in the city;
7. Increase public awareness and involve them in city development process;
8. Ensure adequate supply of affordable housing;
9. Promote appropriate economic policies and activities to reduce poverty and unemployment in the city and
10. Develop clear policy on urban squatter settlements

PRIORITIZED STRATEGIC INTEGRATED PACKAGE PROGRAMS

Priority No. 1:

Improvement of KMC's financial status and managerial capacity to ensure good urban management.

- a. **Formulate clear vision and objectives for KMC** and its departments and prepare capital perspective paper of KMC. Prepare and implement long term operational plan of KMC.
- b. Reform advisory body.
- c. Clarify **accountability of elected and administrative staff** and familiarize them to modern management systems.
- d. Increase **interaction among political representatives** about CDS.
- e. Make KMC staff **more result oriented** and introduce performance evaluation system.
- f. Establish data based management and information system and **recruit MIS expert**.
- g. Restructure current organization and **establish Vacancy Fulfillment Committee**.
- h. **Construct KMC building**.
- i. Form independent audit committee, **strengthen internal audit unit**, prepare internal audit and control byelaws and develop policy on periodic reporting and dissemination of financial reports.
- j. Prepare **performance contract with CEO**.
- k. **Strengthen CPC**, institutionalize its functions and have representation of line staff.
- l. **Strengthen UDD and PWD** of KMC and provide relevant training in planning and management to its staff.
- m. Strengthen KMC management for **implementation of Heritage Clearance Policy**, zoning and usage permit.
- n. Assess the training needs of KMC staff and **establish a separate training unit**.
- o. Monitor and control budget expenditure to **control expenditure overruns**.
- p. **Study revenue potential** and consolidate existing resource mobilization.
- q. Analyze KMC's debt carrying capacity, **examine potential for public borrowing** and use concessional loan finance for detailed studies and priority projects.
- r. Design and **implement integrated revenue collection system**.
- s. Negotiate with NWSC for **sharing the collected drainage service charge**.
- t. Introduce **service charge on waste collection** system and **privatize solid waste collection**. Set up recycling plant through private company.
- u. Develop **framework for bulk distribution of electricity and water** with private sector participation.
- v. **Initiate a policy of "polluters pay" principle**.
- w. Establish mechanism to **evolve and sustain community development activities** at the ward and city level.

PRIORITIZED STRATEGIC INTEGRATED PACKAGE PROGRAMS

Priority No. 2:

Planned and integrated development of land, infrastructure, housing and transportation

- a. Prepare and **implement a revised land use plan** for KMC along with zoning and building regulations, detail area plans, area specific regulations regarding housing, heritage spaces and nodes etc.
- b. Establish a separate regulatory unit within UDD to look into violations of planning and building regulations. Take appropriate actions including **action against incompatible public and private buildings** in heritage sites, encroachment in public spaces etc.
- c. **Review KVDP 2020** and implement major recommendations regarding integrated development of land, infrastructure and other services.
- d. Collaborate with the Department of Land Administration and Survey and Department of Industries to formulate regulations requiring **prior approval of industries and land registration from the planning agency.**
- e. **Strengthen CPC** to look after the overall planning and development functions of KMC.
- f. **Expand KMC boundary** to integrate the urbanized VDCs and to acquire land for essential urban services.
- g. **Initiate integrated infrastructure expansion/upgradation programs** in targeted areas with private sector participation.
- h. **Develop parks, housing and other critical urban services** on unused guthi, public land and land vacated by non-central function government agencies.
- i. Strengthen PWD, DOTM and improve DOR functions to **improve transportation** in the city.
- j. Finalize **functional classification of road network.**
- k. Control roadside parking, roadside on and off loading and illegal activities.
- l. Improve intersection facilities, bus terminals, pedestrian crossings and walkway facilities.
- m. Finalize route regularization.
- n. Conduct feasibility study and **initiate road development programs.** Undertake road widening of streets where space is available.
- o. **Update cadastral maps** and land holding records to protect public land from encroachment.
- p. Preparation of **digital records of building permits** and their completion.
- q. **Initiation of land and housing development projects** in partnership with the private sector. Creation of a revolving fund and budget allocation for such activities.
- r. Undertake drainage improvement works and clear blockage of storm drains.
- s. Collection of nighttime discharge of water from stone water spouts to supplement water supply.
- t. KMC to bear partial capital cost of **street electrification** and to **involve the public in sharing electricity charges.**
- u. Traffic and pedestrian management including traffic time zoning for three wheeled vehicles and pedestrianization of key bridges in city core.
- v. **Use concessional loan finance** for integrated development activities.

PRIORITIZED STRATEGIC INTEGRATED PACKAGE PROGRAMS

Priority No. 3:

Improve and conserve/preserve the natural and manmade environment to keep the city clean, green and healthy

- a. **Review KVDP 2020** and implement major recommendations on environment.
- b. **Finalize landfill site** for solid waste management.
- c. **Set up recycling plant** through private company and process solid waste collected from city.
- d. **Demand water standards** as well as air and noise pollution standards from concerned agencies.
- e. Discourage and **relocate polluting economic functions** outside KMC.
- f. Initiate treatment plants along river systems.
- g. **Expand KMC boundary** to access land for essential urban services including solid waste management, recreation etc.
- h. **Initiate policy of "polluters pay"** principle and make **EIA mandatory** for construction activities.
- i. Use concessional finance for environmental improvement works.
- j. Negotiate with NWSC to share collected drainage service charge to be used for maintenance works.
- k. **Create a heritage park at Ranipokhari.**
- l. Construct weirs across rivers to arrest sand.
- m. Proper management of open spaces occupied by traders and squatters with local communities as caretakers.
- n. Greening programs to be launched around the ring road green belt.
- o. **Update cadastral maps** and land holdings to protect public land from encroachment. Separate regulatory unit to be set up within UDD to monitor and take action against encroachments.
- p. **Prepare revised land use plan** and accompanying regulations with specific policies and proposals to improve and protect the environment.
- q. Design system for enforcement of vehicle inspection, traffic regulation and vehicle operation.
- r. **Introduce service charge on solid waste management.**
- s. Establish river domain on cadastral maps and maintain setback.
- t. Determine appropriate open space locations and halt all unwarranted conversions of existing open public spaces.
- u. Create separate land registration category for urban land to protect unchecked urbanization on prime agriculture land.
- v. **Develop parks on unused guthi land**, public land and land vacated by relocated non-central function government agencies.

PRIORITIZED STRATEGIC INTEGRATED PACKAGE PROGRAMS

Priority No. 4:

Conserve/preserve the physical and cultural heritage of the city

- a. Formulation of detailed policies and action plans to link other cultural parameters to current monument conservation approach.
- b. Negotiate to **extend 4P programs to WHSMZ** and other heritage nodes in the core.
- c. Joint inventory of guthi property and action identification.
- d. **Heritage site management of all 4 KVWHS.**
- e. Training, marketing and promotion of craft products.
- f. **Inventory of KMC heritage.**
- g. Action plan to **link heritage conservation to poverty alleviation.**
- h. **Prepare revised land use plan** and related regulations and revise building byelaws for application to heritage spaces and nodes. Study of transfer of development rights for application to heritage sites.
- i. Establish separate regulatory unit within UDD to enforce revised building byelaws in heritage sites. Actions on incompatible public and private buildings.
- j. Study and define traditional and heritage friendly businesses and give incentives to sustain them.
- k. Policy and innovative action plan for Guthi Sansthan for land, jewelry and festival management.
- l. Preparation of plans for counterpole commercial development.
- m. **Development of tourism infrastructure within heritage buildings in private possession at heritage sites. Declare them as heritage buildings and develop criteria for recognition and incentives.**
- n. Development of museums.
- o. Rehabilitation of stone water conduits.
- p. Traffic time zoning for wheeled vehicles, pedestrianization of key bridges and traffic and pedestrian management in city core.
- q. Redevelopment of selected streets and market centres.
- r. **Development of heritage park at Ranipokhari.**
- s. **Review KVDP 2020** and implement major recommendation on heritage conservation.
- t. Use concessional loan finance for rehabilitation of heritage sites

PRIORITIZED STRATEGIC INTEGRATED PACKAGE PROGRAMS

Priority No. 5:

Promote private sector involvement in city development works

- a. Develop **policies for private sector involvement** in infrastructure development works.
- b. Develop KMC-private sector committee. Develop mechanism to maintain contact with stakeholders.
- c. Compile list of NGOs operating in KMC and their objectives.
- d. Initiate land and housing development programs in partnership with private sector.
- e. Joint collaboration to initiate community development programs at the city and ward levels. Expand cost sharing development works at the ward level.
- f. **Privatize solid waste collection in wards.** Process solid waste collected in the city by setting up recycling plant through private company.
- g. **Discuss CDS and CAP with donor community** and financial institution.
- h. Develop **framework for bulk distribution of electricity and water** with private sector participation.
- i. Development of commercial counterpole and redevelopment of selected streets and market centres with private sector participation.
- j. **Study of heritage friendly business** and provide incentives to sustain such businesses and industries.
- k. Training, marketing and promotion of craft products.
- l. **Extend 4P programs** including those in WHSMZ and heritage nodes in the core.

PRIORITIZED STRATEGIC INTEGRATED PACKAGE PROGRAMS

Priority No. 6:

Improve coordination among agencies involved in development activities in the city

- a. Define roles of the Government, KMC, different agencies and the private sector. **Prepare long term operational plan of KMC** which will integrate the activities of different agencies.
- b. Prepare and **implement revised land use plan** and related regulations and publicize it. Make it the basis for coordinating and integrating development activities within the city.
- c. Collaborate with DLA & LS and DOI to formulate regulations which make it mandatory to obtain **prior approval from the planning agency for land sub-division and industrial establishments.**
- d. **Strengthen CPC** and institutionalize its functions as a central planning and coordinating unit of KMC. Set up mechanism to hold regular coordination meetings with all concerned agencies on a regular basis.
- e. **Strengthen DOTM and improve DOR functions** for improved transportation management.
- f. Networking and linkage development with prominent partner organizations and stakeholders and joint collaboration in community development programs.
- g. **Review KVDP 2020** and implement major recommendations regarding coordination of development activities.
- h. **Discuss CDS and CAP with donor community and financial institutions.**

PRIORITIZED STRATEGIC INTEGRATED PACKAGE PROGRAMS

Priority No. 7:

Increase public awareness and involve them in the city development process

- a. Involve the public in the **preparation of revised land use plans** and regulations and maintain transparency and allow public access to these documents.
- b. Initiate land development programs in KMC with the involvement of the local community.
- c. **Communicate CDS objectives to the staff and elected officials** and increase interaction among political factions regarding CDS.
- d. Develop mechanism to maintain contact with stakeholders. Compile list of NGOs operating in KMC along with their objectives and activities.
- e. **KMC to bear partial capital cost of street electrification and the public to be involved in sharing electricity charges.**
- f. **Involvement of local communities** serving as caretakers in the proper management of open spaces occupied by traders and squatters.
- g. **Networking and linkage development with prominent partner organizations** and stakeholders and joint collaboration in initiating community development programs. Continue local level development programs on cost sharing basis.
- h. Initiate **social mobilization and awareness campaigns** at the local level.
- i. Creation of documentation and resource data bank at the central and ward level.
- j. **Develop "environmental ethics"** with the help of other agencies and publicize it to the public.
- k. **Develop policy on periodic reporting and dissemination of financial reports of KMC.**

PRIORITIZED STRATEGIC INTEGRATED PACKAGE PROGRAMS

Priority No. 8:

Ensure adequate supply of affordable housing

- a. **Prepare revised land use plan** and related regulations with specific policies and programs on housing.
- b. **Initiate land development programs** to increase supply of housing plots.
- c. Develop housing on some of the unused guthi and public land and land obtained after relocation of non-central function government agencies.
- d. **Initiate land and housing development programs** in partnership with the private sector.
- e. **Feasibility study of new land and housing development projects** and creation of revolving fund and budget allocation for such developments. Consider use of concessional loan.
- f. Initiate research and **pilot programs on low cost housing technology.**
- g. Special housing finance schemes for **low-income households including squatters.**
- h. Develop and **formalize fragmented rental housing subsystem.**
- i. Management of squatters and upgrading of slums and squatter settlements.
- j. Initiate pilot programs on upgrading and regularization of squatter settlements.

PRIORITIZED STRATEGIC INTEGRATED PACKAGE PROGRAMS

Priority No. 9:

Promote appropriate economic policies and activities to reduce poverty and unemployment in the city

- a. **Identify comparative advantages of KMC** and identify infrastructure needs for sectors with comparative advantage.
- b. Define roles of Government, KMC and private sector in infrastructure development and **develop clear policies for private sector involvement.**
- c. **Mobilize resources for infrastructure investments.**
- d. Assess social priority programs and allot budget for social sector programs.
- e. Action plan to **link heritage conservation and poverty alleviation.**
- f. **Grants to heritage based industries.**
- g. Set up mechanism to initiate and sustain community development activities at the ward level.

PRIORITIZED STRATEGIC INTEGRATED PACKAGE PROGRAMS

Priority No. 10:

Develop clear policy on urban squatter settlements

- a. **Develop clear plans and policies on urban squatter settlements** during the preparation of the revised land use plan and related regulations.
- b. **Special housing finance schemes to improve squatter settlements.**
- c. Management of squatters and squatter settlements.
- d. **Initiation of pilot programs** on upgrading and regularization of squatter settlements.
- e. **Implementation of UN Park** including management of squatter settlements.



Goals Achievement Matrix: Urban Planning

PROGRAMS		GOALS															
		GO1	GO2	GO3	GO4	GO5	GO6	GO7	GO8	GO9	GO10	Total goals achieved					
URBAN PLANNING																	
1.	Prepare revised land use plan and related regulations																
2.	Establish separate regulatory unit within UDD																
3.	Provide relevant training to staff of UDD and PWD																
4.	Collaborate with DLA & LS and DOI to formulate regulations requiring prior approval of plan agency																
5.	Review planning and building violations and determine appropriate actions																
6.	Strengthen CPC and institutionalize its functions																
7.	Establish rivers domain and cadastral map and maintain set back																
8.	Determine appropriate locations and halt unwarranted conversion of open spaces																
9.	Expand KMC area to include urbanized VDCs																
10.	Initiate land development programme in KMC																
11.	Initiate infrastructure expansion/ upgrade in targeted areas and involve private sector																
12.	Create separate land registration category for urban land																
13.	Develop parks/housing etc. on unused guthi, public land																
14.	Relocate non-central function government agencies and develop parks/housing etc. in vacated land.																
TOTAL RELATED PROGRAMS			2	11	4	1	2	7	3	2	3						

CITY DEVELOPMENT STRATEGY

Goals Achievement Matrix: Urban Economics

PROGRAMS	URBAN ECONOMICS	GOALS
1. Identification of comparative advantages of KMC	●	Appropriate economic policies & activities to reduce poverty & unemployment in the city
2. Identify infrastructure needs for sectors with comparative advantages	●	Improve financial status & managerial capacity of KMC to ensure good urban management
3. Define roles of Government, KMC, private sector in infrastructure development	●	Planned & integrated development of land, infrastructure, housing and transport
4. Develop policies for private sector involvement	●	Ensure adequate supply of affordable housing
5. Mobilize resources for infrastructure investments	●	Develop clear policy on urban squatter settlements
6. Consolidate existing resource mobilization	●	Conserve/preserve the physical and cultural heritage of the city
7. Introduce service charge on solid waste management	●	Improve & conserve/preserve the natural & manmade environment to keep city clean, green & healthy
8. Strengthen data base and institutionalise updating system	●	Improve coordination among agencies involved in development activities in the city
9. Examine potential for public borrowing	●	Increase public awareness & involve them in city development process
10. Assess social priority programs, allot budget for social sector programs	●	Promote private sector involvement in city development works
11. Assess social nets funded by govt, examine prospect and role of KMC in dev. and mobilizing resources	●	Total goals achieved
12. Familiarize elected officials to modern management systems	●	
13. Consolidate and strengthen CPC	●	
14. Make KMC staff development oriented	●	
15. Assess the need for separate training unit and establish it	●	
TOTAL RELATED PROGRAMS	6	2

Goals Achievement Matrix: Institutional Development

PROGRAMS	GOALS										
	1	2	3	4	5	6	7	8	9	10	
INSTITUTIONAL DEVELOPMENT	Appropriate economic policies & activities to reduce poverty & unemployment in the city	Improve financial status & managerial capacity of KMC to ensure good urban management	Planned & integrated development of land, infrastructure, housing and transport	Ensure adequate supply of affordable housing	Develop clear policy on urban squatter settlements	Conserve/preserve the physical and cultural heritage of the city	Improve & conserve/preserve the natural & manmade environment to keep city clean, green & healthy	Improve coordination among agencies involved in development activities in the city	Increase public awareness & involve them in city development process	Promote private sector involvement in city development works	Total goals achieved
1. Formulate clear objectives for KMC		●									1
2. Communicate CDS objectives to staff and electorate								●	●		2
3. Prepare capital perspective papers of KMC		●									1
4. Initiate long-term operational plan of KMC		●						●			2
5. Reform advisory body		●									1
6. Clarify accountability of elected and administration staff		●									1
7. Increase interaction among political factions about CDS		●							●		2
8. Form Vacancy Fulfilment Committee		●									1
9. Establish management and information system		●									1
10. Recruit MIS expert		●									1
11. Form independent Audit Committee		●									1
12. Restructure current organization		●									1
13. Develop KMC - private sector committee										●	1
14. Construct KMC building		●									1
15. Prepare performance contract with CEO		●									1
16. Develop DBS		●									1
17. Introduce performance evaluation system		●									1
18. Organize CPC with representation of line staff of KMC		●						●			2
19. Develop mechanism to maintains contact with stakeholders									●	●	2
20. Compile list of NGO's operating in KMC and their objectives								●		●	2
TOTAL RELATED PROGRAMS		16						3	4	3	

INTEGRATED PROGRAMS

Goals Achievement Matrix: Urban Transport

PROGRAMS	GOALS
URBAN TRANSPORT 1. Review existing Acts and recommendation of appropriate policy measures 2. Strengthen PWD following transfer of road network ownership 3. Strengthen DOTM 4. Improve DOR function 5. Finalize functional classification of road network 6. Design system for enforcement of vehicle inspection, traffic regulation and vehicle operation 7. Control roadside parking and roadside activities 8. Control roadside on and off loading and illegal activities 9. Improve intersection facilities and bus terminals 10. Improve pedestrian crossing and walkway facilities 11. Finalize route regulation 12. Conduct feasibility study and finalize road development programs TOTAL RELATED PROGRAMS	(G1) Appropriate economic policies & activities to reduce poverty & unemployment in the city
	(G2) Improve financial status & managerial capacity of KMC to ensure good urban management
	(G3) Planned & integrated development of land, infrastructure, housing and transport
	(G4) Ensure adequate supply of affordable housing
	(G5) Develop clear policy on urban squatter settlements
	(G6) Conserve/preserve the physical and cultural heritage of the city
	(G7) Improve & conserve/preserve the natural & manmade environment to keep city clean, green & healthy
	(G8) Improve coordination among agencies involved in development activities in the city
	(G9) Increase public awareness & involve them in city development process
	(G10) Promote private sector involvement in city development works
	Total goals achieved
	TOTAL RELATED PROGRAMS

Goals Achievement Matrix: Housing & Squatter Settlements

PROGRAMS	GOALS	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	Total goals achieved
HOUSING & SQUATTER SETTLEMENTS												
1. Update cadastral maps & land holding records to protect public land from encroachment		●										2
2. Prepare land use map & accompanying regulations		●			●							7
3. Publication and posting of land use maps & zoning regulations					●					●		2
4. Training & involvement of UDD staff in project activities		●										1
5. Preparation of digital records of building permits & their completion				●								1
6. Revision of building bye-laws & adoption of area specific regulations		●		●			●					3
7. Land and housing development programs in partnership with private sector		●		●	●						●	3
8. Feasibility study for new land and housing development projects		●		●	●							2
9. Creation of revolving fund & budget allocation for land and housing development activities		●		●	●							2
10. Research and pilot projects on low cost housing technology					●							1
11. Special housing finance schemes for low income households including squatters					●							2
12. Develop and formalize fragmented rental housing sub-system					●							1
13. Review urban land policy and improve urban land taxation												1
14. Implementation of UN Park along with management of squatters					●							2
15. Management of squatters, upgrading of slums and squatter settlements					●							2
16. Initiate pilot program on upgrading and regularization of squatter settlements					●							2
TOTAL RELATED PROGRAMS		2	7	9	5	2	4	2	2	1		

Goals Achievement Matrix: Municipal Services

PROGRAMS	GOALS
MUNICIPAL SERVICES 1. Road widening of streets where space is available 2. Construct weirs along width of rivers to arrest sand 3. More effective use of water from store sports by collecting nighttime discharge 4. Undertake drainage improvements in identified locations 5. Clear blockage of storm drains in identified locations 6. Process solid waste collected from city 7. Municipality to bear partial capital cost of street electrification and involve public in sharing electricity charges 8. NEA to initiate innovative street light scheme and share major capital cost of electrification 9. Proper management of open spaces occupied by traders and squatters with local community as caretakers 10. Greening programs to be launched along Green Belt	G1 Appropriate economic policies & activities to reduce poverty & unemployment in the city
	G2 Improve financial status & managerial capacity of KMC to ensure good urban management
	G3 Planned & integrated development of land, infrastructure, housing and transport
	G4 Ensure adequate supply of affordable housing
	G5 Develop clear policy on urban squatter settlements
	G6 Conserve/preserve the physical and cultural heritage of the city
	G7 Improve & conserve/preserve the natural & manmade environment to keep city clean, green & healthy
	G8 Improve coordination among agencies involved in development activities in the city
	G9 Increase public awareness & involve them in city development process
	G10 Promote private sector involvement in city development works
TOTAL RELATED PROGRAMS	Total goals achieved

Goals Achievement Matrix: Heritage Conservation

HERITAGE CONSERVATION PROGRAMS	GOALS												
1. Formulation of detailed policies & action plans to link other cultural parameters to current monument conservation approach	G1	Appropriate economic policies & activities to reduce poverty & unemployment in the city											
2. Negotiate to extend 4P programs to WHSMZ and other heritage nodes in the core.	G2	Improve financial status & managerial capacity of KMC to ensure good urban management											
3. Joint inventory of Guthi property and action identification	G3	Planned & integrated development of land, infrastructure, housing and transport											
4. Heritage site management of all 4 KWWHS	G4	Ensure adequate supply of affordable housing											
5. Training, marketing and promotion of craft products	G5	Develop clear policy on urban squatter settlements											
6. KMC heritage inventory project	G6	Conserve/preserve the physical and cultural heritage of the city											
7. Action plans to link heritage conservation & poverty alleviation	G7	Improve & conserve/preserve the natural & manmade environment to keep city clean, green & healthy											
8. Revise bldg. bye-laws for application to heritage spaces & nodes	G8	Improve coordination among agencies involved in development activities in the city											
9. Study & definition of traditional and heritage friendly business	G9	Increase public awareness & involve them in city development process											
10. Study of Transfer of Development Rights for application to heritage sites	G10	Promote private sector involvement in city development works											
11. Grants to listed festivals, heritage based industries etc.	G11	Total goals achieved											
12. Strengthen KMC management for implementation of Heritage Clearance Policy, zoning and usage permit													
13. Policy and innovative action plan for Guthi Samsthan for Land, jewelry and festival management													
14. Preparation of plans for counterpoole commercial development													
15. Development of tourism infrastructure within heritage buildings in private possession at heritage sites													
16. Development of museums.													
17. Rehabilitation of stone water conduits													
18. Traffic time zoning for wheeled vehicles in city core													
19. Pedestrianization of key bridges in city core													

Goals Achievement Matrix: Heritage Conservation

PROGRAMS	GOALS
HERITAGE CONSERVATION	
20. Action on incompatible public & private buildings	<input checked="" type="checkbox"/> G1 Appropriate economic policies & activities to reduce poverty & unemployment in the city <input type="checkbox"/> G2 Improve financial status & managerial capacity of KMC to ensure good urban management <input type="checkbox"/> G3 Planned & integrated development of land, infrastructure, housing and transport <input type="checkbox"/> G4 Ensure adequate supply of affordable housing <input type="checkbox"/> G5 Develop clear policy on urban squatter settlements <input type="checkbox"/> G6 Conserve/preserve the physical and cultural heritage of the city <input type="checkbox"/> G7 Improve & conserve/preserve the natural & manmade environment to keep city clean, green & healthy <input type="checkbox"/> G8 Improve coordination among agencies involved in development activities in the city <input type="checkbox"/> G9 Increase public awareness & involve them in city development process <input type="checkbox"/> G10 Promote private sector involvement in city development works Total goals achieved 2
21. Redevelopment of selected streets and market centres	<input type="checkbox"/> G1 <input type="checkbox"/> G2 <input checked="" type="checkbox"/> G3 <input type="checkbox"/> G4 <input type="checkbox"/> G5 <input type="checkbox"/> G6 <input type="checkbox"/> G7 <input type="checkbox"/> G8 <input type="checkbox"/> G9 <input type="checkbox"/> G10 Total goals achieved 2
22. Traffic and pedestrian management in city core	<input type="checkbox"/> G1 <input type="checkbox"/> G2 <input type="checkbox"/> G3 <input type="checkbox"/> G4 <input type="checkbox"/> G5 <input checked="" type="checkbox"/> G6 <input type="checkbox"/> G7 <input type="checkbox"/> G8 <input type="checkbox"/> G9 <input type="checkbox"/> G10 Total goals achieved 2
23. Heritage park at Ranipokhari	<input type="checkbox"/> G1 <input type="checkbox"/> G2 <input type="checkbox"/> G3 <input type="checkbox"/> G4 <input type="checkbox"/> G5 <input type="checkbox"/> G6 <input type="checkbox"/> G7 <input type="checkbox"/> G8 <input type="checkbox"/> G9 <input type="checkbox"/> G10 Total goals achieved 2
TOTAL RELATED PROGRAMS	2 1 5 23 1 1 6 2

Goals Achievement Matrix: Community Development

PROGRAMS	GOALS
COMMUNITY DEVELOPMENT	
1. Set clear vision, mission and objectives for the depts. of KMC	<input type="checkbox"/> G1 Appropriate economic policies & activities to reduce poverty & unemployment in the city
2. Institutional capacity building process of depts. & ward committees	<input checked="" type="checkbox"/> G2 Improve financial status & managerial capacity of KMC to ensure good urban management
3. Formulation of plans and policies by prioritizing subjects areas and course of actions	<input checked="" type="checkbox"/> G3 Planned & integrated development of land, infrastructure, housing and transport
4. Networking and linkage development with prominent partner organization and stakeholders	<input checked="" type="checkbox"/> G4 Ensure adequate supply of affordable housing
5. Social mobilization and awareness campaigns at local level	<input checked="" type="checkbox"/> G5 Develop clear policy on urban squatter settlements
6. Creation of documentation and resource data bank at centre and ward level	<input checked="" type="checkbox"/> G6 Conserve/preserve the physical and cultural heritage of the city
7. Joint collaboration to initiate community dev. programs	<input checked="" type="checkbox"/> G7 Improve & conserve/preserve the natural & manmade environment to keep city clean, green & healthy
8. Create resource pool to initiate community dev. projects	<input checked="" type="checkbox"/> G8 Improve coordination among agencies involved in development activities in the city
9. Mechanism to evolve and sustain community dev. activities at wards	<input checked="" type="checkbox"/> G9 Increase public awareness & involve them in city development process
	<input checked="" type="checkbox"/> G10 Promote private sector involvement in city development works
TOTAL RELATED PROGRAMS	Total goals achieved
2	6
2	4
1	1
2	2
3	2
2	2

Goals Achievement Matrix: Environment

PROGRAMS	GOALS										
	① Appropriate economic policies & activities to reduce poverty & unemployment in the city	② Improve financial status & managerial capacity of KMC to ensure good urban management	③ Planned & integrated development of land, infrastructure, housing and transport	④ Ensure adequate supply of affordable housing	⑤ Develop clear policy on urban squatter settlements	⑥ Conserve/preserve the physical and cultural heritage of the city	⑦ Improve & conserve/preserve the natural & manmade environment to keep city clean, green & healthy	⑧ Improve coordination among agencies involved in development activities in the city	⑨ Increase public awareness & involve them in city development process	⑩ Promote private sector involvement in city development works	Total goals achieved
ENVIRONMENT											
1. Review KVDP 2020 and implement major recommendations			●			●	●	●			4
2. Finalize land fill site for solid waste management							●				1
3. Set up recycling plant through private company		●					●		●		3
4. Discuss CDS & CAP with donor community and financial institutions								●	●		2
5. Demand drinking water standards from suppliers							●				1
6. Declare old buildings as heritage buildings and develop criteria for recognition and incentives						●					1
7. Discourage and relocate polluting economic functions outside KMC							●				1
8. Demand air and noise pollution standards							●				1
9. Initiate treatment plants along river systems							●				1
10. Develop information centre in KMC		●									1
11. Improve co-ordination with central govt. agencies and private investors								●			1
12. Expand political boundary for essential services including solid waste management, recreation etc.			●					●			2
13. EIA procedure to be mandatory for construction activities							●				1
14. Develop "environmental ethics" with help of other agencies							●		●		2
15. Initiate policy of "polluter's pay" principal"		●					●				2
TOTAL RELATED PROGRAMS		3	2			2	11	3	1	2	

Goals Achievement Matrix: Municipal Finance

PROGRAMS	GOALS
MUNICIPAL FINANCE	
1. Negotiate with NWSC in sharing collected drainage service charge	<input checked="" type="checkbox"/> G1 Appropriate economic policies & activities to reduce poverty & unemployment in the city
2. Analyse "ability to pay" and "willingness to pay"	<input checked="" type="checkbox"/> G2 Improve financial status & managerial capacity of KMC to ensure good urban management
3. Monitor and control budget expenditure to control expenditure overrun	<input checked="" type="checkbox"/> G3 Planned & integrated development of land, infrastructure, housing and transport
4. Study revenue potential for realistic planning and resources mobilization	<input checked="" type="checkbox"/> G4 Ensure adequate supply of affordable housing
5. Analyze KMC's debt carrying capacity	<input checked="" type="checkbox"/> G5 Develop clear policy on urban squatter settlements
6. Use concessional loan finance	<input checked="" type="checkbox"/> G6 Conserve/preserve the physical and cultural heritage of the city
7. Prioritize projects and determine cost of detailed studies	<input checked="" type="checkbox"/> G7 Improve & conserve/preserve the natural & manmade environment to keep city clean, green & healthy
8. Develop and implement procedures to control and settle outstanding advances	<input checked="" type="checkbox"/> G8 Improve coordination among agencies involved in development activities in the city
9. Organize education programs an accounting procedures	<input checked="" type="checkbox"/> G9 Increase public awareness & involve them in city development process
10. Organize and strengthen internal audit unit	<input checked="" type="checkbox"/> G10 Promote private sector involvement in city development works
11. Prepare internal audit and control by laws and conduct awareness campaigns	
12. Develop policy on periodic reporting and dissemination of financial report	
13. Privatize solid waste collection in wards	
14. Prepare 5-years operating and capital budget	
15. Develop frame work for bulk distribution of electricity with private sector participation	
16. Design sustainable system of accounting and financial system linked to integrated revenue collection system	
17. Develop and implement Integrated Revenue Collection System	
TOTAL RELATED PROGRAMS	
	Total goals achieved

5.

Detailed Proposal A Case Study

5.1 PROPOSAL FOR STRENGTHENING MUNICIPAL TAX COLLECTION SYSTEM OF KMC

5.1.1 Introduction

Kathmandu, the capital city of the Kingdom of Nepal, is the only Metropolis in the country. The city is situated in a valley at an altitude of 1,350 meters. Kathmandu, together with other settlements of the valley, is among the oldest settlements in the central Himalayas. Historical monuments, ancient temples and shrines, golden pagodas and inspiring deities have made this city an open-air museum and a place of inexhaustible historic, artistic and cultural interest.

The municipal area is currently spread over 5,076 hectares with different growth patterns. The city can be broadly distinguished into three sectors: Historic City Core, the City Center and the City Outer Ring. Administratively, the city is divided into 35 wards.

Due to increasing economic activities and available facilities as well as glamour, Kathmandu has been attracting people from different parts of the country. According to the 1991 census, the city population was 421,258 which was estimated at 575,652 in 1998 with an average growth rate of 6.0 percent and a residential density of 113 people per hectare. The average household size of the city is 5 persons. The floating population of Kathmandu City is estimated to be 50,000 during daytime from nearby cities and villages like Bhaktapur and Lalitpur. This is due to the presence of major government office headquarters and the Central Business District (CBD).

5.1.2 Background & Rationale

Kathmandu Metropolitan City (KMC), as the local government, is a municipal service provider and

engaged in numerous public welfare and service activities. For the running and maintenance of these services, local governments are assigned a number of taxes and other sources of revenues, such as, house & land tax, integrated property tax, business tax, advertisement tax, vehicle tax, rent tax etc. In addition, local governments have access to benefit-related charges, license fees, and fines. But the fiscal powers of local governments are limited, with most of the more buoyant and elastic sources falling within the ambit of the central government.

Not only in Nepal, but also in the region, the finance of local governments is in an unsatisfactory state. Most of them rely on transfers from the central governments for bridging the fiscal gap - a gap between resources that they have at their command and what they need in order to fulfill their mandated responsibilities. On the one hand the degree of fiscal autonomy to the municipalities is limited, while on the other hand, it is evident that municipalities are not able to effectively use even the limited fiscal powers that they have been granted under the inter-governmental arrangements. To make matters worse, local revenues are not adequately responsive to changing needs.

5.1.2.1 Fiscal Gap is widening:

Going back through few years data of KMC, it is evident that a few years ago, the revenue collected was matching the expenditure on employees salaries and other administrative expenses, debt payment, social services, ordinary capital and development activities or capital investment. But, gradually, the scene has been changing as illustrated in the following graphs. For example, in 1996-97 the total expenditure was Rs.314 million, whereas the internal revenue source accounted for Rs.299.68 million and grants/loans stood at Rs.14.84 million (Chart 6). The fiscal gap then was minimum. But, now the fiscal gap is widening each year.

CITY DEVELOPMENT STRATEGY

In the preceding fiscal year 1999-00, the actual own source revenue was 80.27 million rupees only, and grants/donations (local development fee received from MLD) was 229.23 million rupees, whereas the total expenditures were 325.18 million rupees with a resource gap of about 16 million rupees. (Chart 9). This figure clearly illustrates two impacts resulting from the abolishment of octroi. First, there is a sharp decline in the own source revenue position, and second, KMC's situation is so critical that the own source revenue is not even enough to meet the salary and benefits obligations towards KMC employees.

For the current fiscal year, 2000/01, KMC estimated revenue as 818.47 million rupees and expenditures as 1054 million rupees resulting in a resource gap of 235 million rupees, which KMC intends to bridge through a long-term loan. (Chart 12)

Earlier this year, the ADB assisted KMC Institutional Strengthening Program forecasted revenue of KMC for this fiscal year, 2000/01. Accordingly, its own source revenue is estimated to be 300 million rupees with minimum "base" case and 480.23 million rupees with maximum or "best" case. For the same year, the expenditures are expected to be 687.7 million rupees (Charts 10&11). Even if the best case for revenue is assumed, there will be a resource gap of 207.5 million rupees.

A resource gap exists in both cases. The differences in KMC's forecast and ADB TA's forecast are mainly due to new programs added by KMC and the overly optimistic revenue estimation made by the KMC.

The overriding question is How will this gap be filled? It is evident that in the absence of required resources, KMC will not be able to invest in the required infrastructure and development works (or capital works) as well as operation and maintenance of infrastructure and services. Deficit financing without improvement in the resource mobilization initiatives at this stage could affect long-term functioning of KMC.

5.1.2.2 Expenditure responsibilities:

In the context of rising municipal responsibilities, rising expenditure needs are inevitable. The increasing expenditure needs could be attributed to the effects of rapid urbanization; and rising municipal responsibilities are the results of decentralization in the region.

Increasing cost of municipal service provision and often-static revenues are expanding the gap between income and expenditure needs. Prices of goods and services the city has to acquire continue to increase, for example, the increasing human resources cost, operation & maintenance costs and infrastructure investment costs. The gap between expenditure and revenue often widens because user charges are inadequate and other revenue bases are inelastic, that is, they do not increase in proportion to the growing expenditure needs. This situation clearly calls for better resource mobilization for the sustainability of KMC.

5.1.2.3 Resource Mobilization

If the local governments have to provide effective and efficient municipal services to the people, they must have a dependable source of income, independent of outside grants including those from the central government. Like the other local governments, KMC is also forced to opt for massive resource mobilization as there are no other choices. There is an urgent need for Nepali municipalities, including KMC, to strengthen their capability and competence to enhance revenue and mobilize resources as per the provisions of the Act.

At present, the main sources of KMC's own revenue comprise the following elements:

1. **Local Development Fee** - could be termed as compensation grant for octroi or subsidy, received from His Majesty's Government of Nepal.
2. **Vehicle Tax**- also could be termed as vehicle registration tax.
3. **Business Tax**- is charged on business establishments and is based on categories defined in the rules and regulations of the Act.
4. **Advertisement Tax**- on hoardings and neon signboards.
5. **Land Revenue**
6. **Rental Income**- income from rental of KMC property.
7. **Income from Fees and Penalty**- such as vehicle entrance fee, property valuation fee, building map approval fee, application fee, parking fee, registration and other fees, environment and sanitation fee, etc.
8. **Other Miscellaneous Income**- such as block number plate, tender document fee, map form fee, forfeiture of deposit payable, interest from bank, miscellaneous/ insurance claim received, etc.

Besides the above regular revenue sources, the Act has mentioned about the following new revenue sources:

1. House & Land Tax/Integrated Property Tax
2. Rent Tax
3. Entertainment Tax
4. Professional Video Tax
5. Various fees, user charge and penalty

House & Land Tax/Integrated Property Tax (IPT) Potential

From the beginning of this fiscal year (July 2000) HMG/ N handed over the responsibility of collecting house and land tax to the local governments. Municipalities are now authorized to collect either house & land tax or the Integrated Property Tax.

KMC's task is to go for new options provided by the Act. In this regard, it is believed that the Integrated Property Tax (IPT) could generate handsome revenues, although it is not a perfect substitute for octroi. If KMC and other local governments are to replace lost octroi revenue from their own sources, they will have to rely heavily upon the property tax; as the property tax is the only large producer of revenue that HMG has identified for decentralization. KMC has not yet collected integrated property tax, nor has it previously collected any of the taxes that were replaced or disqualified by the operation of the new tax. As per an estimate the maximum revenue that the Integrated Property Tax could yield is 89 million rupees, which amounts to only 43% of the previous octroi revenue. The yield is low because the tax rates are too low. The highest rate that can be charged is Rs.1,500, irrespective of the size and characteristic of the land and house.

In contrast to the IPT, house and land tax seems to provide a higher yield. For the last three months, KMC is involved in collecting the house and land tax, which also could be termed as progressive in nature. Because house and land tax is levied on the basis of the valuation of house and land ownership and there is no ceiling as in the IPT, it is estimated that if KMC goes for house and land tax at hundred percent capacity, the full potential could be rupees 950 million. So house and land tax seems to be the favorable option.

5.1.2.4 The Constraints

In order to collect all the taxes, fees and charges effectively and efficiently - the basic need is a comprehensive or integrated revenue collection system. Such kind of system shall incorporate an up-to-date database and information of taxpayers (including property survey and house numbering); trained and capable human resources; proper equipment, software and physical settings; and well defined communication mechanism. At present, KMC lacks the complete system and it could be identified as a constraint toward effective and efficient resource mobilization.

Not only for the house & land tax/IPT, but also for other taxes and fees, KMC does not have proper database and information about taxpayers. The importance of database and information has always been acknowledged by KMC, but it has never tried to build it in a time bound manner despite several recommendations from various studies and experts. Property survey and house numbering activities are the pre-requisites for House & Land Tax / Integrated Property Tax.

Similarly, KMC does not have adequate computer hardware and software to support the system; office space is not enough; office settings are primitive and taxpayers find it difficult to pay the taxes. Office automation with corporate setting is almost non-existent.

Further, to fulfill the purpose of the system the crucial element is human resources. The success of the system depends on the availability of well-trained, capable, disciplined and dedicated human resources. Lots of things need to be done by KMC in this area.

In addition, there should be a well-defined marketing and communication mechanism, so that all the stakeholders related to this system are informed on time; and their feelings and reactions are taken care of. At present KMC neither has any information about taxpayer's willingness and ability to pay nor the views of different stakeholders such as various organizations, elected representatives, and central government. Although KMC has its own FM radio station, it has not been exploited to the required level. Interactions between the business community (or taxpayers) and KMC hardly exist. As a consequence, taxpayers and private sector investors have no access to the developments inside KMC while the image of KMC remains unfavorable among the general public.

So, it could be concluded that the lack of comprehensive or integrated revenue collection system is an obstacle towards effective and efficient resource mobilization, creating a resource gap for infrastructure development and urban service delivery.

5.1.3 The Solution (Proposed System)

Design and implementation of integrated revenue collection system is an option to the above problem.

5.1.3.1 Objective and Scope

Integrated Revenue Collection System should be developed and implemented in a phased manner. It should be developed and implemented as a special priority project, involving direct participation from the revenue department and other concerned departments. It is necessary for bolstering the feeling of ownership among these departments for long term sustainability.

The main objective of the project will be to bridge the widening fiscal gap through revenue maximization. This objective will be achieved through the strategy of developing and implementing the integrated revenue collection system as a special priority project.

5.1.3.2 Implementation Arrangements:

This system could be developed and implemented in following phases:

PHASE 1 Designing the system

First phase will contain several tasks as mentioned below:

A. Human Resource Management

a. Acquisition

Prepare a human resource plan; conduct job analysis, prepare job description and job specification, recruitment and selection. Guidelines developed by the Institutional Strengthening of KMC, ADB TA 3185 will be helpful in this context and it should be followed.

b. Human Resource Development

Training and development needs assessment; design training course and determine appropriate methods; conduct training; evaluate the training course; take

necessary corrective action and prepare required human resources quality wise and quantity wise.

B. Decide about necessary computer hardware, software and other equipment. - This task also includes reviewing and deciding about the required computer software and devising training strategy.

C. Procurement of necessary computer hardware, software and other equipment.

D. Develop co-ordination mechanism to work with the Survey Department and Land Registration Office of HMG/N, to record changes in house and land position

E. Develop House Numbering System (Addressing system):

House Numbering System will be generated from the detailed property survey and it is one of the important elements of the proposed revenue collection system. At present, "Institutional Strengthening of KMC - ADB TA 3185" has already conducted property survey in three pilot wards - ward numbers 2, 5 and 20, and developed a house numbering system.

Kathmandu Valley Mapping Program (KVMP) will soon develop metric system based addressing system.

F. Conduct Property Survey and develop database system.

This task includes data collection, data entry with proposed software and devising the data upgrading system.

G. Scanning and Digitizing Existing Maps and Key Indicators:

This task will go along with task D. Recent maps of National Survey should normally be used. The staff should assign a number to each property and specify the location of that property on the map. After that such maps should be scanned and digitized.

H. Linking GIS and proposed software System to create an integrated system and pilot testing.

I. Linking other taxes such as business tax, rent tax and building map approval fee to the system.

J. Data Analysis and Report:

Data collected and processed during tasks E, F, G, H and I should be analyzed. On the basis of this, necessary

reports for various sources of revenue should be prepared. This will give clear indication of revenue potentials.

PHASE 2 Implementation

Phase 2 also contains various tasks related to the implementation of the system

A. Create the Valuation Mechanism

a) As mentioned in Chapter 7, Section 144.3 of Rules of Local Self-Governance Act 1999, the municipalities should form an assessment team of 5 persons for the IPT, including experts. Then, as per Section 144.5 of the same rules, the team declares the tax rates for property.

b) For the house and land tax, a local committee should be formed as mentioned in Annex 8.2.2 of Section 140 of the same rule.

B. Billing

The total of 35 wards could be divided into 5 or 7 zones for billing, payment and collection purpose and revenue offices could be established accordingly. Each property (each house or plot of land) will have a house number, even those which are vacant. The number will be the basis for the property register, to be entered into the corporate accounting system and used for the purpose of both assessing the tax liability as well as raising the bill. The revenue department should sort the bills by wards and deliver the bills for each ward. As per Section 144.13 of above-mentioned rule, the taxpayers should receive the bills from the municipalities by Mangshir (mid December).

C. Payment

Section 144.14 states that the taxpayers should pay the tax to the municipalities within the same fiscal year. The methods by which payment should be made needs to be discussed and subjected to further analysis.

D. Collection

Each zonal tax office should establish a data base and system which records, by property, the bill, the amount due by date, the amount paid by date, and any existing arrears. At the end of each quarter, the system should produce a list of arrears by property. The arrears should

be grouped by wards (and the database should be so organized) and distributed to concerned ward offices. Upon receiving the arrears, revenue staff of that ward should visit each property in arrears and encourage payment.

E. Penalties

Chapter 10, Section 165.2 of Local Self Governance Act, mentions the general penalty a municipality can impose on the defaulter, but there is no mention about how much fines municipalities can charge. So municipal by-law should be prepared about this.

F. Enforcement

At the end of each quarter, the system should produce a list of all arrears by property. The system should retain fourth quarter arrears lists, with future payments recorded, and annually combine them by property so that multi-user defaults can be identified. At the end of the fourth quarter, the revenue department should review the multi-year defaults annually and determine, on a case-by-case basis, whether enforcement is warranted or not. The above mentioned Clause 165.2 of the Act permits any and all public services to be suspended to a property that is in default.

Each year, the revenue department should identify, select and pursue through the legal system a number of long-time and high value defaulters. The revenue department should ensure that these cases are given widespread publicity. For all cases of default, the tax office should ensure that each revenue staff member at ward publicizes the properties that are in default in his/her ward and enlist the ward committee and ward residents in an effort to collect due bills.

PHASE 3 Result Management

This final phase is stock taking phase. This is the stage to review and evaluate whether the system performance is satisfactory or not. It will also be necessary to determine whether the implementation phase was smooth or not? What problems and difficulties came up during phase? Was it manageable or not?

After answering all these questions, KMC will have to take necessary corrective actions and continue the system.

CITY DEVELOPMENT STRATEGY

Chart 6: Financial Year 2053/54 (1996/97)
Comparison of Actual Expenditures and Revenues

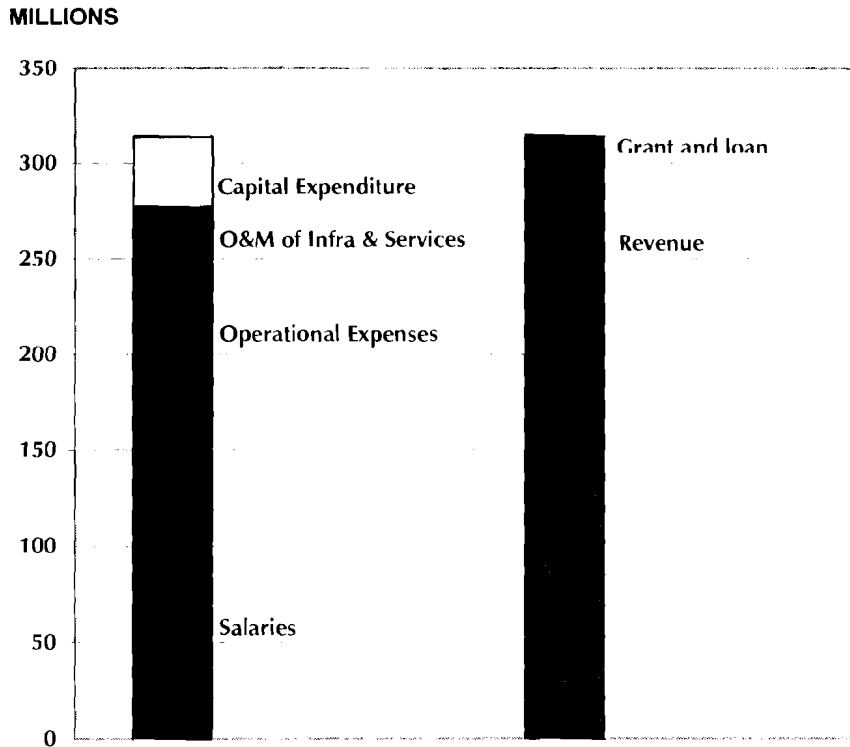
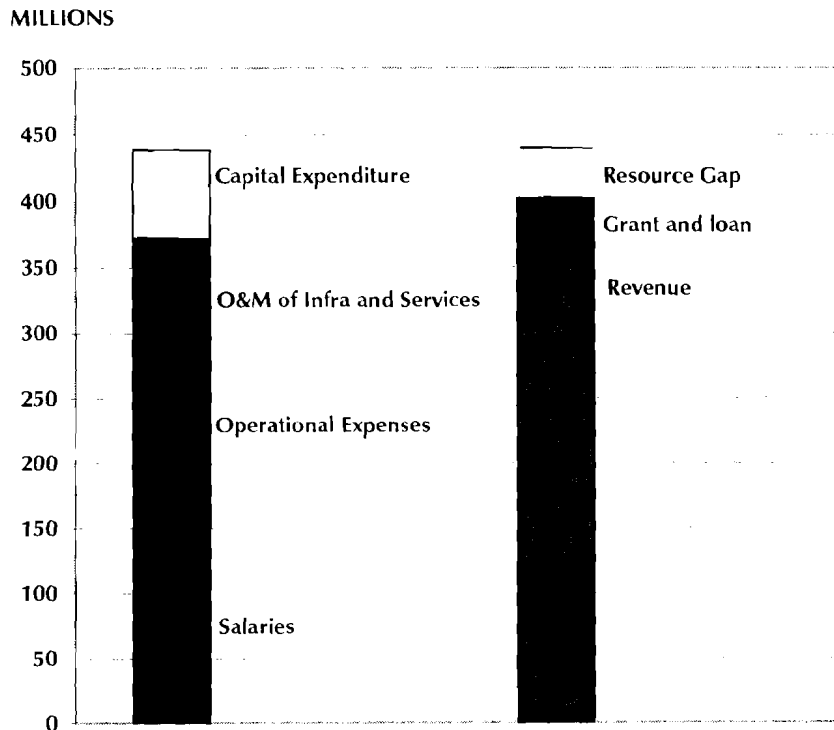


Chart 7: Financial Year 2054/55 (1997/98)
Comparison of Actual Expenditures and Revenues



Source: KMC Budget Document

Chart 8: Financial Year 2055/56 (1998/99)
Comparison of Actual Expenditures and Revenues

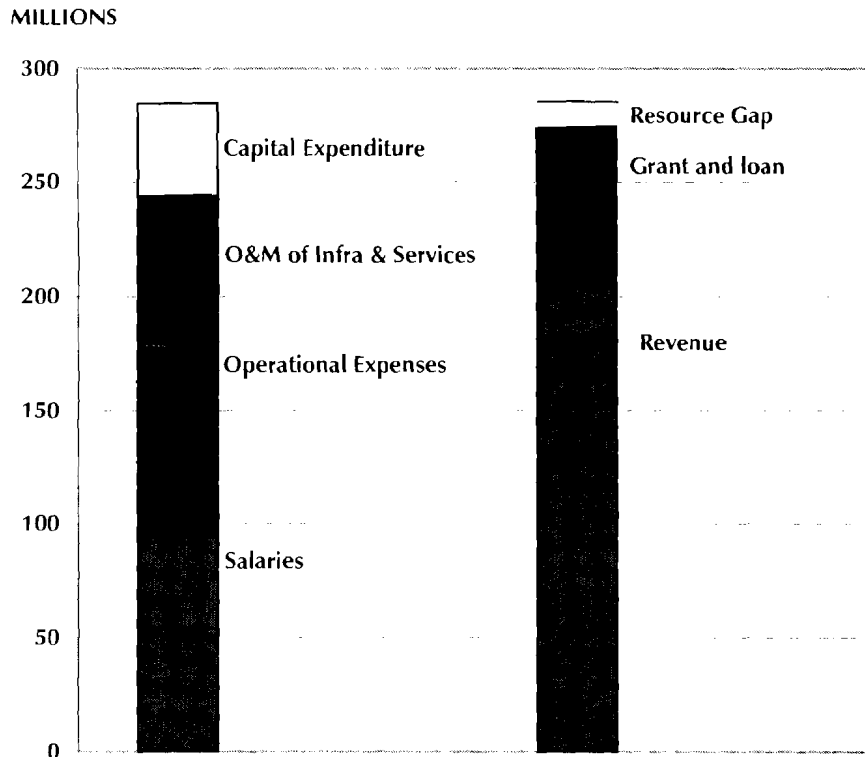
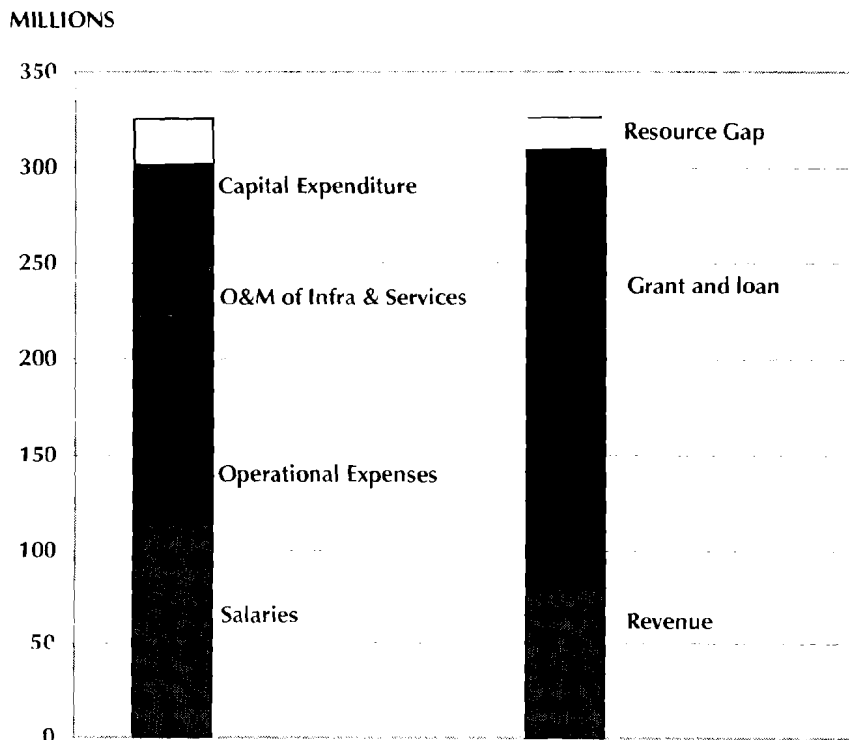


Chart 9: Financial Year 2056/57 (1999/00)
Comparison of Actual Expenditures and Revenues



Source: RMC Budget Document

CITY DEVELOPMENT STRATEGY

Chart 10: Base Case Comparison of Projected Expenditures and Revenues for FY 2057/58

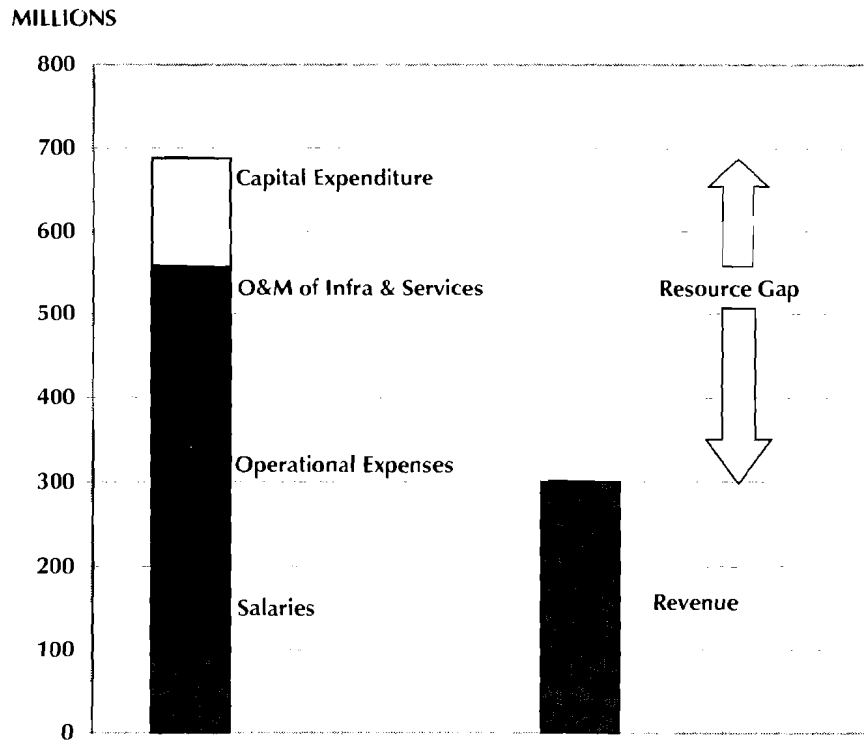


Chart 11: Potential Comparison of Projected Expenditures and Revenues for FY 2057/58

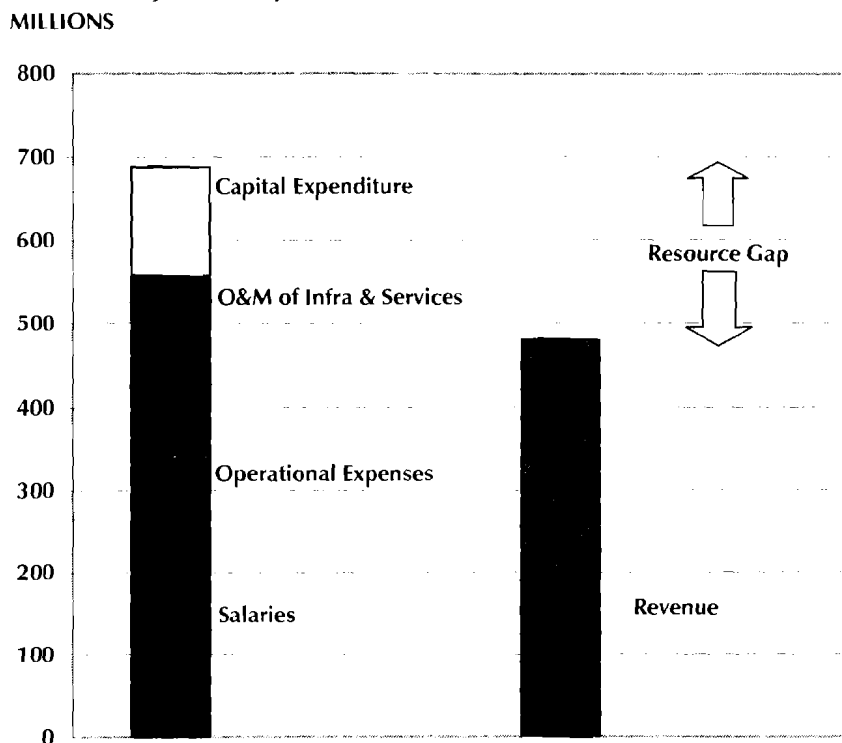
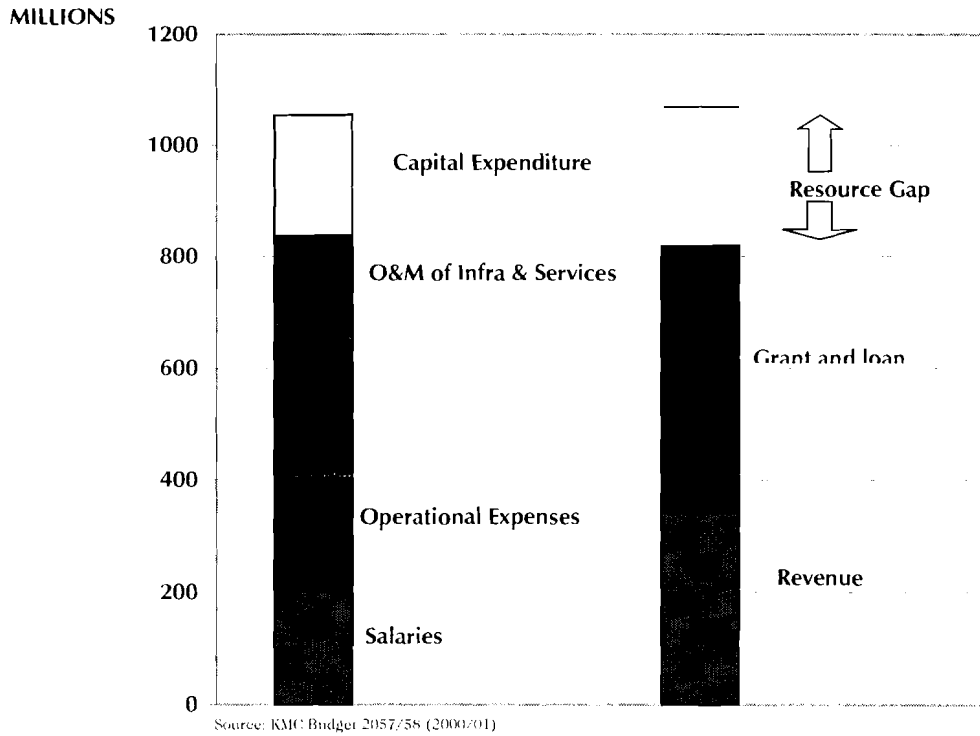


Chart 12: Financial Year 2057/58 (2000/01)
Comparison of Budgeted Expenditures and Revenues



Source: KMC Budget 2057/58 (2000/01)

CITY DEVELOPMENT STRATEGY

6. Kathmandu's Current Initiatives towards Urban Information System

6.1 THE CONTEXT:

Informatization may be understood differently from person to person. In a city it is different for each group or communities according to their need. Much more than that the municipal government bear the responsibility of running the city, governing the city and take it to its destination, not alone but along with all the stakeholders. What makes the picture more complex is the diverse cross section of the city population from urban poor to the elites, from housewives to the businessmen. But information, and only INFORMATIZATION can address such a challenge with diversities.

Therefore, well-informed citizens for good urban governance is the concern of the city. Opportunity to have reliable, timely and easy approach to information by all the cross section of the population is the aim.

At the outset of the new millennium, the developing world is heading towards decentralization and self-governance. More specifically KMC is discussing the issues of good governance. There are nine characteristics proposed by UNDP for good governance. Among them the most important are participation, transparency, accountability and efficiency. Perhaps, it is the information and communication gap in centralised system that geared KMC towards local governance. How can a city run its government without good information system, without a good communication system, and yet address the issue of good governance. Without a good information system much cannot be expected from city government if it even we switched from central local government system.

Kathmandu Metropolitan City came up with information strategy to develop a common platform for residence, government and non-government organisation, commercial enterprise and any other individuals interested in the development of the city. The structure of KMC was reorganised accordingly. Based on the strategic vision, for its mission to good governance, following information strategies were set.

6.2 INFORMATION STRATEGIES OF KMC:

- ❑ Develop an integrated information dissemination System (Refer Fig.8)
- ❑ Develop Corporate Database System (Involves all resource and asset management, Human resource management, monitoring and evaluation system)
- ❑ Establishment of Urban Management Information System (Refer Fig.9)
- ❑ Promote partnership between NGOs and private sector in the development of information sector
- ❑ Develop Inter-municipal Information System (Refer Fig-10)
- ❑ Strengthen the municipal management with e-Governance too.

To fulfil these strategies, the city has established following operational objectives and initiated following activities.

❑ Establishment of Information & Communication Department

The organisation structure of KMC was revised to provide rooms for information and communication activities. The new structure includes three sections under the umbrella of the Information and Communication Department. The new sections are

- ❑ MIS Section,
- ❑ GIS Section, and
- ❑ Media Section
- ❑ Recruited new employees with IT background.

For the first time in any city of Nepal, Kathmandu had information officer, GIS officer, documentation officer, and system analyst.

❑ Access to Internet and email

Internet and email access are made available for the first time in the organisation in 1997. At least one computer in each building in different locations are provided with email access.

CITY DEVELOPMENT STRATEGY

❑ Establishment of Internet

Intranet system was initiated to establish management information system for the city.

- ❑ Establishment of LAN to connect City Planning Commission and Information Department.
- ❑ Establishment of Intranet system with the effort of KMC's own human resources to integrate all department, (first time in government owned organization in Nepal).
- ❑ All departments of KMC at different locations have access to information in main server through telephone dial up system.
- ❑ Provision is also made to access KMC Intranet to public through dial up system.
- ❑ This is a base for the proposed UMIS system in KMC.

❑ Establishment of Geographic Information System (GIS)

- ❑ KMC initiated its Geographic Information System in small scale as a pilot basis in 1998. With its own resources the GIS section of KMC used secondary data and information to prepare disaster management plan, and urban utilities and services, etc. for some of the wards in a pilot basis.
- ❑ Started producing maps in different sizes for various purpose as per demand by KMC departments and agencies.
- ❑ The pilot initiation demonstrated IT's real implementation to urban management

❑ Human Resources Development

- ❑ National and International level training and seminars are provided to employees for regular update with the technology.
- ❑ Facility to use internet for research without limit to staffs involving in IT is made available.

❑ Confidence building

Government offices are blamed for their slow processing and lethargic organisation. To build the confidence on people KMC took part in exhibitions showing its capacity and strengths. KMC participated in the Information Technology

exhibition organized by Computer Association of Nepal. The exhibition was very much helpful in demonstrating KMC's activities in GIS and its use for general public. It was one of the most visited stalls in the exhibition. Besides, KMC is taking part in regional workshops and forums.

❑ KMC's homepage in Internet

- ❑ KMC's homepage was made available in internet although it is hosted by free web space providers.
The address is:
<http://www.kathmandumetro.homepage.com>

The Homepage is linked with popular search engines and Official Homepage of Citynet. The webpage was highly appreciated for the Online result of National Parliamentary Election in 1999. The service was made available in Internet in cooperation with Yomari Inc, in KMC's homepage.

- ❑ Establishment of KMC's own internet site:
KMC has recently developed its new website with the support of TUGI/UNDP.
The URL address of the new website is
<http://www.kathmandu.gov.np>

❑ Establishment of FM station

Probably for the first in South Asian Region, KMC has established its own FM station (Metro FM 106.7) for information dissemination.

6.3 KVMP THE MILESTONE TO INFORMATION SYSTEM OF KMC

Much waited integrated urban development project called Kathmandu Valley Mapping Programme was initiated last year under the European Commission assistance. One of the primary objectives of the project is to prepare large-scale GIS map of Kathmandu City. There will be parallel activities on collecting primary data of the city and integrating it to GIS system for urban development and management planning. A permanent workstation for GIS will be established under the umbrella of Urban Management Information System (UMIS), unique of its kind in the country.

6.4 THE URBAN INFORMATION SYSTEM: OPPORTUNITIES AND CHALLENGES

6.4.1 Opportunities:

- Being a capital city, Kathmandu has a benefit of relatively easily available human resources, better infrastructure, services and facilities, and better-educated people and literate mass.
- Private sector is willing to invest.
- The cost of hardware and software are declining dramatically.
- The technology is getting more and more user friendly.
- Slowly and gradually IT is getting integrated into the culture of city people.

6.4.2 Challenges:

- Difficult to get investment priority as basic infrastructures are in competition with investment for IT.
- Some politicians and administrators are indifferent to IT. Some even think that this is not their job.
- Reluctance to share information. Information is power, let's not share it attitude.
- Brain drain of the qualified human resources, the challenge of sustaining the system.
- Difficult to keep pace with the rapidly changing technology since this is a 'Perishable Technology'. This generates risks and resource constraints.
- Sustaining the system once it is established.

Information Dissemination Strategy Of Kathmandu Metropolitan City

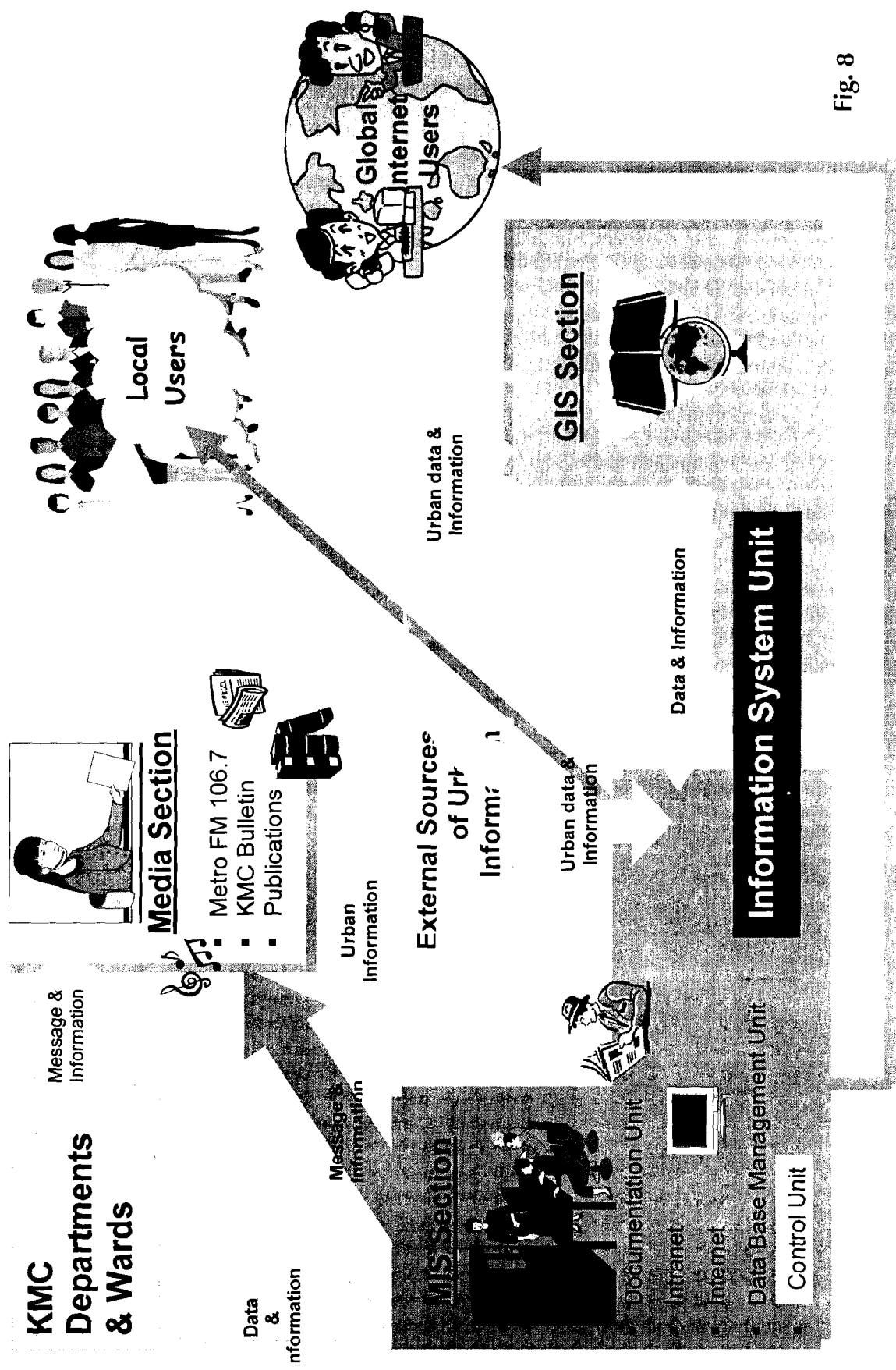
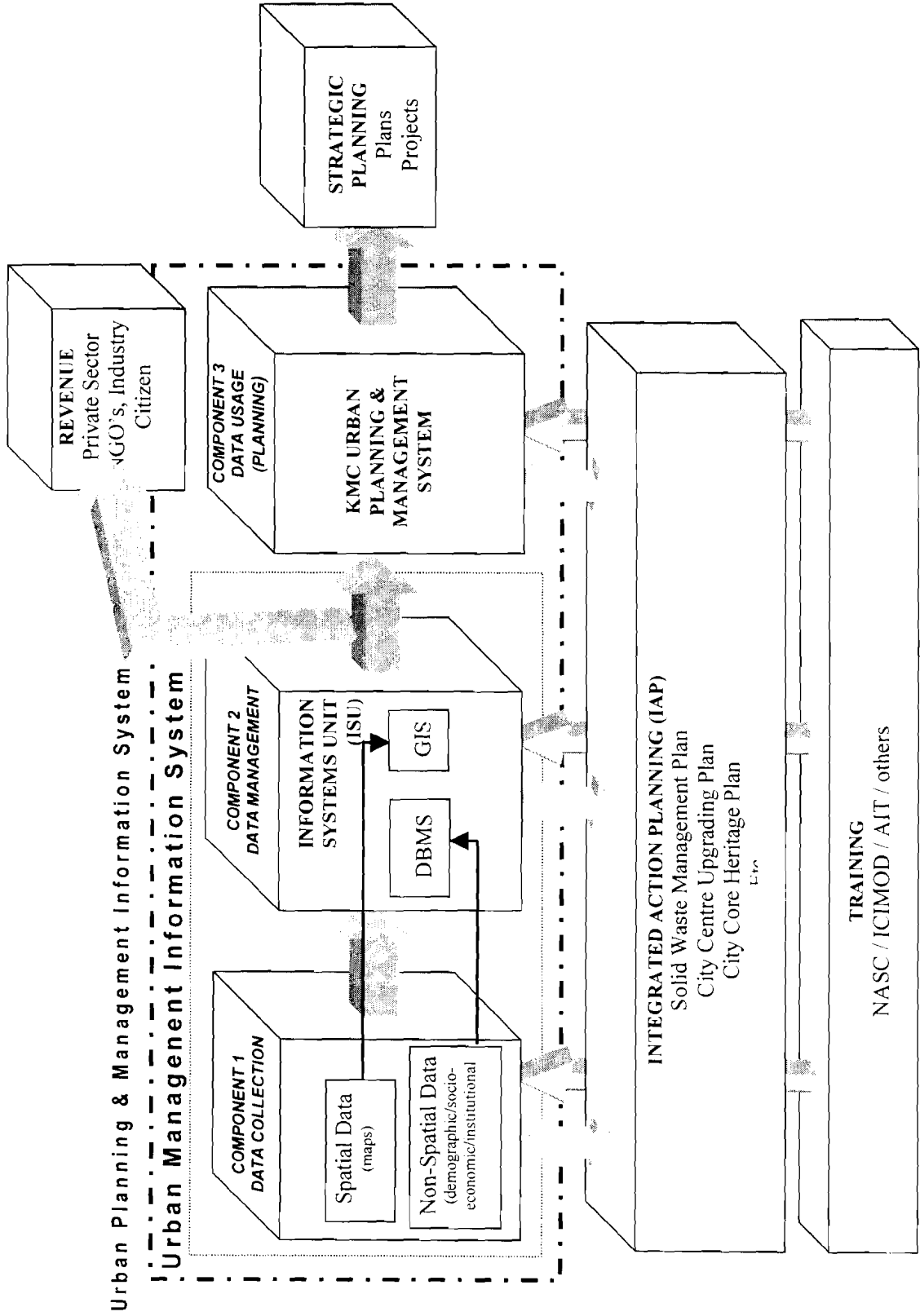


Fig. 8



Urban Management Information System

(Proposed by KVMP)

Fig. 9

Block Diagram of Proposed Inter-Municipality Information Network

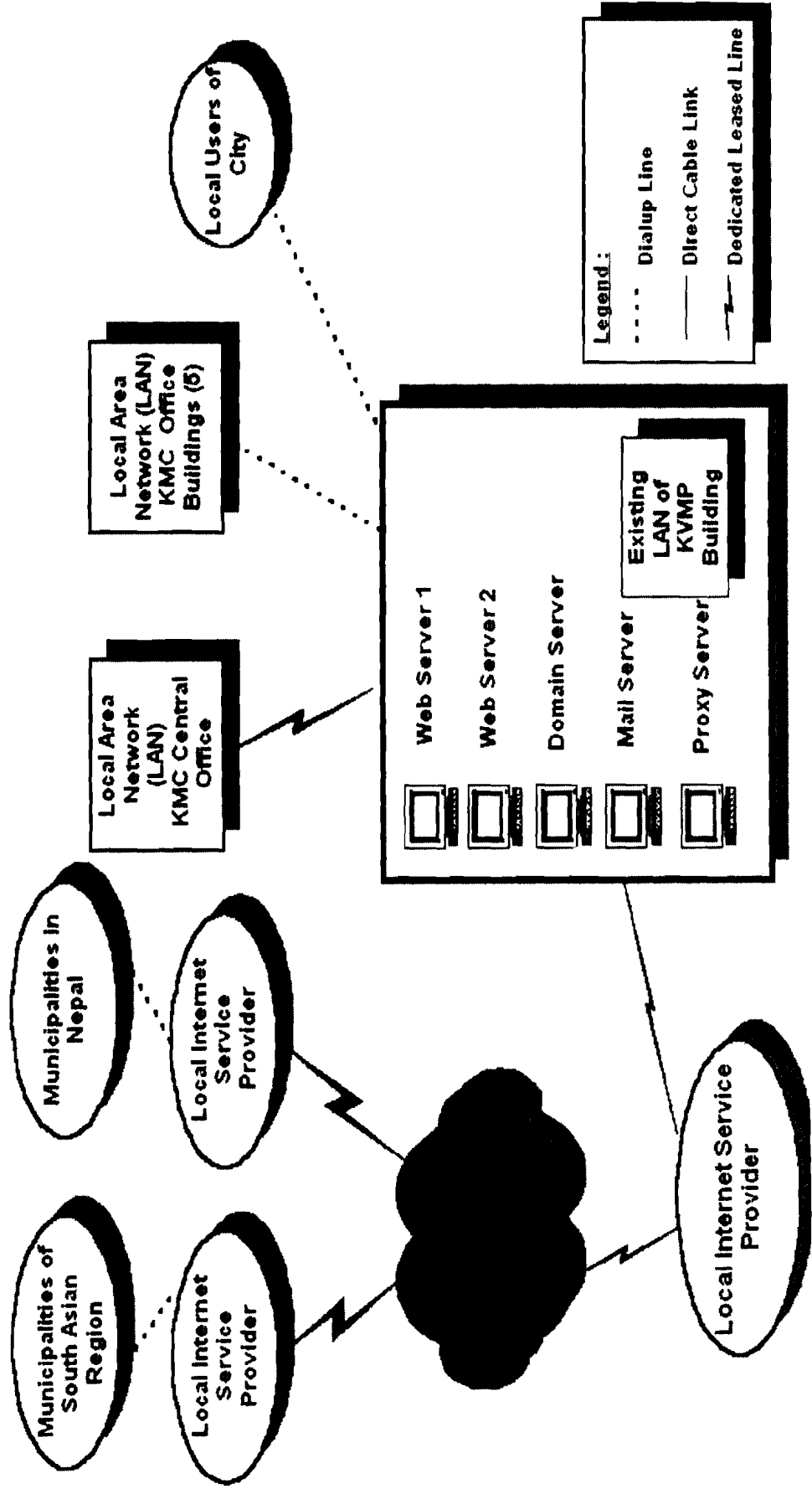


Fig. 10