A BROAD STRATEGIC FRAMEWORK FOR DEVELOPMENT THROUGH REGIONAL MASTER PLANNING-
A CRITICAL STUDY WITH REFERENCE TO GREATER MOHALI REGION OF PUNJAB

Ph. D. THESIS

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IN FULFILLMENT OF THE REQUIREMENTS

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BY

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DECLARATION

I hereby declare that this Thesis entitled, 'A BROAD STRATEGIC FRAMEWORK FOR DEVELOPMENT THROUGH REGIONAL MASTER PLANNING- A CRITICAL STUDY WITH REFERENCE TO GREATER MOHALI REGION OF PUNJAB' is an original work done by me for the award of Doctor of Philosophy in Management. I also declare that this Thesis or any part of it has not been submitted by me for the award of any degree, diploma, title or recognition before.

Patiala
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CERTIFICATE

Certified that the thesis entitled 'A BROAD STRATEGIC FRAMEWORK FOR DEVELOPMENT THROUGH REGIONAL MASTER PLANNING- A CRITICAL STUDY WITH REFERENCE TO GREATER MOHALI REGION OF PUNJAB' which is being submitted by Ms. Namrita Kalsi, in fulfillment of the requirements for award of the Degree of Doctor of Philosophy in Management, Thapar University Patiala, is a record of candidate's own work, carried out by her under my supervision and guidance. The matter embodied in this Thesis has not been submitted in part or full to any other University or Institute for the awarded of any degree.

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"Here are my rules: what can be done with one substance must never be done with another. No two materials are alike. No two sites on earth are alike. No two buildings have the same purpose. The purpose, the site, the material determine the shape. *Nothing can be reasonable or beautiful unless its made by one central idea, and the idea sets every detail."*

Ayn Rand, Fountainhead (1943)

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C O N T E N T S

ABSTRACT

Urbanization is a fair indicator of economic development. Regional master planning and city planning are most important tools for a comprehensive, controlled and regulated urbanization and development. Cities are the engines of growth and generators of resources for national physical and economic development. There is a clearly demonstrable positive correlation among growth, urbanization and accelerated development. Development, not driven by definite planning process, is more likely to be organic. There is an intrinsic relationship among urbanization, Regional master planning and economic development. Development can be accelerated if it is symphonized. Not enough documented evidence was available for clearly exploring and understanding this relationship in the Indian context, especially with reference to the Greater Mohali region in the State of Punjab. This research was aimed to critically examine the empirical, conjectural and hypothetical evidence available in the literature and after evaluating and identifying the gaps in earlier studies, proposed the research area for a deeper understanding of a not so well understood concept of correlation between Regional master planning and accelerated development and suggested a broad strategic framework.

With explosion of urban population, the existing framework of development of cities is no longer relevant as metropolitans and polycentric developments have taken a center stage resulting in urban sprawl, ribbon development and unbalanced growth. The key to implementation of million plus cities is their development with in a perspective of regional framework.

Government and authorities all over the world, fueled by statuary acts/provisions have their own interpretation of what is meant by development and what stakeholders want? This is more or less likely to be a closed door program. With escalating level of awareness, the stakeholders harbor personal aspirations and requirements from planned development, deprived of which one has no qualms of open protest against agenda unacceptable to them. Facing resentment and resistance, governments all over are likely to be convinced about seeking stakeholders participation in development and welcome them as partners. Regional Master Plan if handled with a sensitized approach, seems to emerge as a powerful medium for bringing about economic and social reform. Urban

planning is a macro tool for economic development of a region. In the Indian system, the concept and parameters of design of the plan are usually fairly good. But as soon the proposal leaves the drawing board into the approval or implementation stages, that the barriers and obstacles are encountered! These challenges can be physical, financial, internal capacity or external factors like conflict from stakeholders say land owners, builders, activist, welfare associations and unions etc. It is increasingly being established that since governments do not much involve them in the development process, the sentiment of being marginalized breeds resentment, resulting in resistance. Sensitized and consultative approach is critical to defuse development crisis in India. Unified development strategy of urban-rural continuum can be a natural outcome to discover a collectively acceptable model to key stakeholders.

Limited research had been done on integrated regional approach to development in Punjab or even in India. Specially lacking is assimilation of stakeholder's expectations and respect for their views in policy & strategy formulation. This research is based on questionnaire to three categories of stakeholders from urban mosaic – the land owners or assemblers, the developers or government and the end users like buyer or investors of property, on their expectations from planned development. Since these major players relate to diverse backgrounds and may harbor individual group affiliations, identification of optimal or feasible vision is key to inclusive development. In the postulations, the precincts of the land owner, the agriculturist, the developer, the government or the buyer are seen to be melting away, which yields into universal synergy through mutual enterprises. The self–harmonizing regional urban collaborations can have the strength to absorb the negative or positive impulse from industrial or agricultural economy.

Some pioneer work has been undertaken by various researchers in the islands or components of regional planning and development in the so called developed countries and developing countries including India. However, there is a need to work on a Comprehensive Strategic Framework for regional approach to urban planning and development with an Indian perspective. A detailed and critical study was, therefore, required to fill this gap and as a result, A broad strategic framework for development through regional master planning for accelerated development was conceptualized.

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ABBREVIATIONS	
Abbreviation	**Full Form**
ANOVA	Analysis of Variance
AVE	Average Variance Explained
BOOT	Built, Own , Operate and Transfer
CA	Chartered Accountant
CBD	Central Business District
CEVs	Corporate Ethical Values
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMC	Chandigarh Metropolitan Complex
CTs	Communication Technologies
DD	Demand Drivers; Buyer and Investor of property
DDA	Delhi Development Authority
DDP	Draft Development Plans
DF	Degree of Freedom
GG	Good Governance
GDP	Gross Domestic Product
GNIDA	Greater Noida Industrial Development Authority

ABBREVIATIONS	
Abbreviation	**Full Form**
GMADA	Greater Mohali Area Development Authority
GMR	Greater Mohali Region
GOI	Government of India
GOP	Government of Punjab
H	Hypothesis
HRD	Human Resource Development
HSD	Honestly Significant Difference
ISBT	Inter-State Bus Terminus
IT	Information Technology
KMO	Kaiser-Meyer-Olkin
LPG	Liquefied Petroleum Gas
LR	Land Resources; Land owner and Land assembler
MMR	Mumbai Metropolitan Region
MOUD	Ministry of Urban Development
MP	Master Planning
MPD	Master plan of Delhi
MRTS	Mass Rapid Transport System
NCR	National Capital Region
NCT	National Capital Territory of Delhi
NCRPB	National Capital Region Planning Board
NESTA	National Endowment for Science, Technology and the Arts
NH	National Highway
NNFI	Non-Normed Fit Index
NOIDA	New Okhala Industrial Development Authority
NRI	Non Resident Indians
O	Objective

ABBREVIATIONS	
Abbreviation	**Full Form**
OPEX	Operating Expense
PLPA	Punjab Land Preservation Act
PPP	Public Private Partnership
PRTD	Punjab Regional and Town planning and Development Act, 1995
PSA	Participatory Stakeholder Assessment
PSU	Public Sector Undertaking
PUDA	Punjab Urban Planning and Development Authority
PhD	Doctor of Philosophy
RE FIND	Research Finding
RGI	Registrar General of India
RMP	Regional master planning
RMR	Root Mean Square Residual
RMSEA	Root Mean Square Error of Approximation
RPA	Regional Planning Area
RTI	Right to Information Act
SAS Nagar	Sahibzada Ajit Singh Nagar
SD	Supply Drivers; Builder, Developer and Government
SEM	Structural Equation Modeling
SEZ	Special Economic Zone
SME	Small and Medium Enterprizes
SPSS	Statistical Package for Social Sciences
SRMR	Standardized Root Mean Square Residual
STRATA	Data Analysis and Statistical Software for Professionals
TCPO	Town and Country Planning Organisation
TLI	Tucker-Lewis Index
TOD	Transit Oriented Development

ABBREVIATIONS	
Abbreviation	**Full Form**
UP	Uttar Pradesh
Vs	Versus
Q	Question

CHAPTER –1

INTRODUCTION

This chapter presents the theme and lends a brief background on the contextual aspects of the research on the designated topic, '*A broad strategic framework for development through regional master planning: a critical study with reference to greater Mohali region of Punjab*.' Composed of seven sections, **Section 1.1** explores the global trends in urban population. **Section 1.2** focuses on the cities as a land of opportunities. **Section 1.3** presents the Planning Commission, Government of India's outlook on urbanization. Regional master planning and development is covered in **Section 1.4.** The context of urbanization has been depicted in **Section 1.5.** The rationale and purpose for the study has been portrayed in **Section1.6** and finally **Section 1.7** divulges the organization and the layout of the dissertation.

1.1 Global Trends of Urban Population

The prospects and projections presented by rapid acceleration of a fast urbanizing world is drawing the attention of governments, academicians, international organizations, global leaders, entrepreneurs, professionals, architects, planners and even the ordinary citizens. Off late, a trend reversal in the settlement pattern of world's population was observed in the landmark year 2007, which could not have been swept under the carpet any longer. Thus, urban sector has emerged as an important subject of deliberation, sustained attention, persistent concern and intensive research. So much so that the population division of the department of economic and social affairs, in its revised report of the "world urbanization prospects (2014)" reiterated that:

> **"Globally, more people live in urban areas than in rural areas.** For the first time in history, the global urban population has exceeded the global rural population, and the world's population has remained predominantly urban thereafter,
>
> **The process of global urbanization has proceeded rapidly over the past six decades.** In 1950, more than two-thirds (70 percent) of people worldwide lived in rural settlements and less than one-third (30 percent) in urban settlements. In 2014, 54 percent of the world's population was urban.

Global urbanization trend is expected to continue, so that by 2050, the world will be two-thirds urban (66 percent), and one-third rural (34 percent) roughly the reverse of the global urban-rural population distribution of the mid-twentieth century."

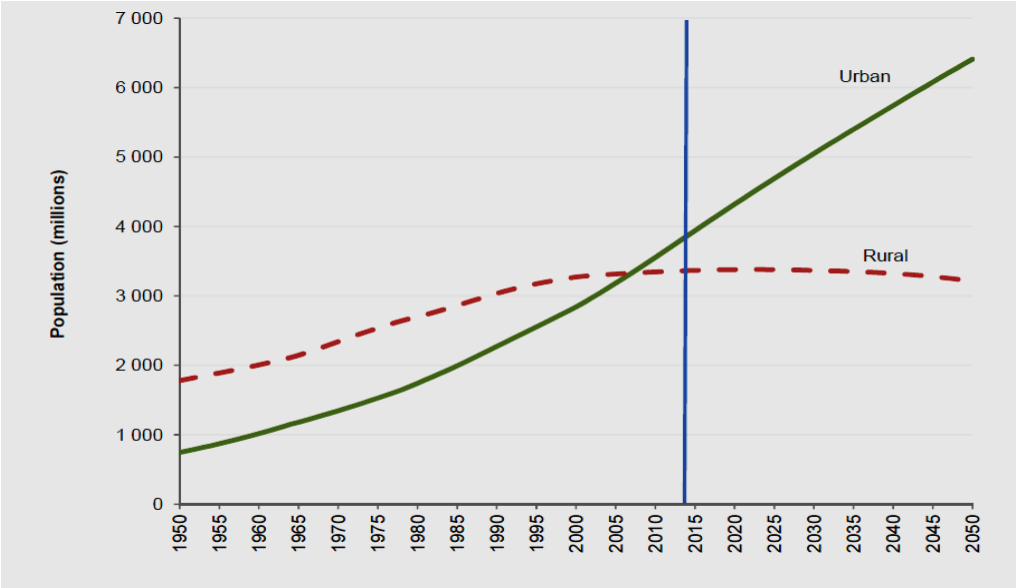


Figure 1.1: Trend Reversal: The Urban and Rural Populations of the World, 1950 -2050

Source: World Urbanization Prospects" (2014) revised

Their population division further brings out that, the world urban population rose from 30 percent to 54 percent from 1950 to 2014, the rate of urbanisation being 0.93 percent per year on average. The global urban population which stood at, close to 3.9 billion in 2014, escalated from about 700,000 in 1950 and was expected to touch 6.3 billion in 2050 **Figure 1.1**. As a result of this rapid urbanization, the world's population has become less rural and more urban for the first time, this century. The urbanization process is expected to continue for decades and an ever-increasing majority of humankind are likely be living in urban areas.

India in 2014, with 410 million urban dwellers, stood second only to China in sheer numbers. In future the urban population of India, China and Nigeria together are projected to account for about 37 percent of global population. In the year 2014 Delhi in India, became the world's second largest city with an agglomeration of 25 million inhabitants. In the same year, Mumbai had a close tie for fifth place, with about 21 million inhabitants.

This emerged lattice of development had strongly influenced the dynamics of urban-rural equation in majority of the prominent regions of the world.

In the report of 2011, the Registrar General and Census Commissioner, set up under the Census Act 1948, Government of India under the Ministry of Home Affairs, has brought out that, for the first time in the history of independent India, an absolute increase in the population of urban areas was observed as compared to that of the rural areas**.** With urban-rural distribution of population at 31.16% and 68.84% respectively, the level of urbanization increased from 27.81% in 2001 census by about 3.35% in 2011census **Figure 1.2.** A decline in the proportion of rural population was observed from 72.19% in 2001 by 3.35% within the same duration. In synchronization with the global trends, a wide variation in the urban population of India was observed in the census interval of 2001 to 2011. This spurt in growth of population in urban areas of India could be attributed to reasons like inclusion of new areas under urban category, migration or a natural increase.

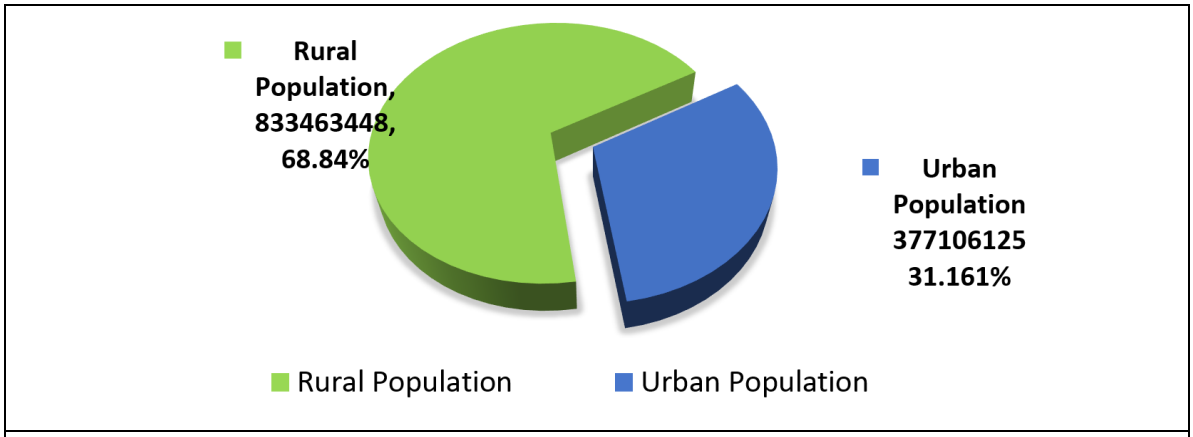


Figure 1.2: Rural vs. Urban Population of India Census 2011

Source :Census of India

The same declining trend in the rural population of India can be observed in the past more than 100 years **Figure 1.3.** A miniscule urban population of 10.8 percent in 1901 increased to 17.3 percent in 1951 and further increased to 31.2 percent by 2011.

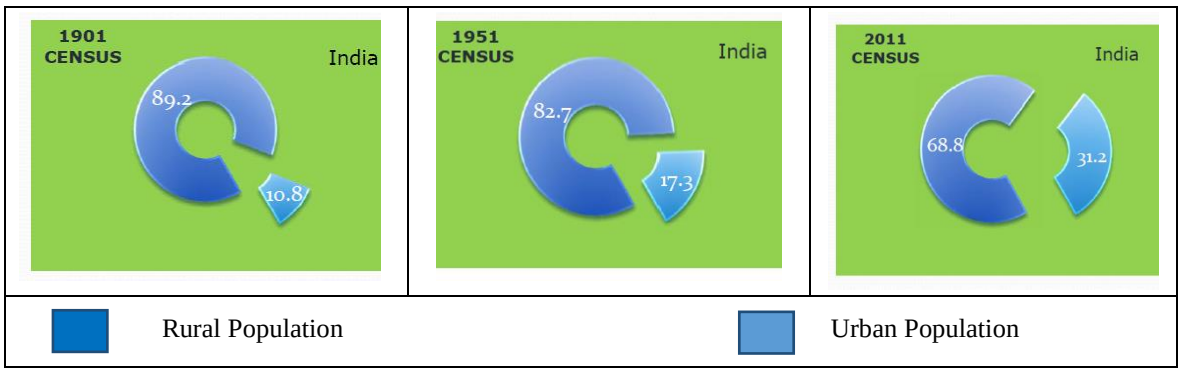


Figure 1.3: Trends in Rural Urban Distribution of Population in India in Percentage 1901, 1951 and 2011 *Source: Census of India, 2011*

1.2 Cities-a Land of Opportunities

A well thought out urban region can have an effervescent synergy of enterprise, excitement, modernity and scientific thinking.It continually attracts people with matching vitality, spirit of innovation, potent energy, zest and vigor for living. A conurbation of IT, manufacturing and services sector industry, in start-ups, investment zones, production centers which impart employment and job opportunities are a dynamo for driving the dynamic business environments. This atmosphere can be a magnetic mechanism for discovery, invention and innovations with an ever increasing use of smart technology. As a converging nursery for human resources and entrepreneurial spirit, this has a potential to generate whole new cohort of ideas, concepts, activities and commerce.

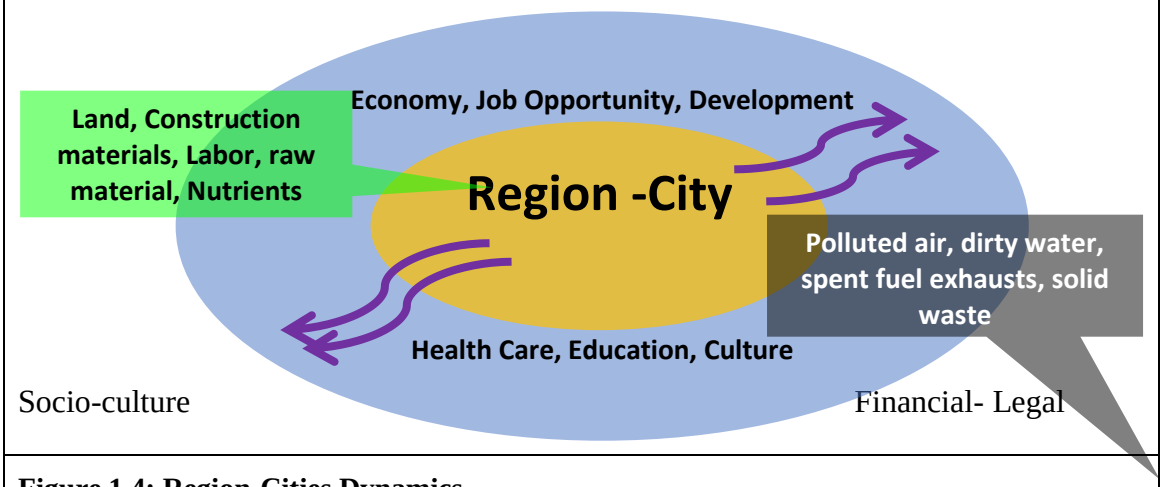


Figure 1.4: Region-Cities Dynamics

Thus, more finances and gross domestic product (GDP) can be produced in urban areas as compared to land occupied in purely rural functions. Cities are the generators of economy and engines of growth but are also guzzlers of resources. Thus, region-cities built on two percent of land resources can stake claim, upto say seventy-five percent of the world resources with a discharge of an equivalent quantum of wastes and pollutants.

Urban waste may come with local implications but can pose a hazard of global dimensions (**Figure1.4).** The adverse impact of the Region-city footprint can be felt both at local level and at a global scale, which is a paradox. For example, cities are a major consumers of energy which can cause regional pollution, but with worldwide reach. This has dramatic fallout on the health of people, the animal kingdom, the biosphere and the

air quality [United Nations Environment Programme (UNEP) (1999), Girardet (1996)]. Carbon footprint and greenhouse gases like Chloro-Floro Carbons (CFC) emission cause global warming and depletion of ozone layer although the usage may be local.

A region-city possess potential to enfold the expanding populations, with all their hopes and expectations of improved community living, cultural values, customs, education, lifestyle, cuisine, health and other diverse opportunities in limitless ways. It absorbs within its cocoon, thriving socio-cultural-spiritual ecosystems with health-educational-sports and economic drivers. But the transportation of shear human numbers, through the vast distances of urban sprawls can be a daunting task for the regional administration. Most of the urban areas are creaking under the performance pressure and struggle to provide a glitch free smoothly running conurbation. Some of the urban challenges in India are, aging infrastructure, inadequate water and energy supply, unsatisfactory sewerage and garbage disposal or solid waste management. Stakeholder driven housing sizes, typologies, basic and higher education, adequate healthcare, commercial, sports and recreational outlets, to be met at affordable costs are the other areas of concern.

Meeting the utility, socio, cultural infrastructure, transportation challenge and preserving land for agriculture in the face of smart and demanding citizen are some of the key issues that require further focus. A regional perspective may be a good idea for the sharing of human resources, infrastructure and their capital costs. It is vital for setting policy level priorities to promote sustainable, inclusive, equitable, and smart development both for urban and rural areas which is possible only at macro level.

Once a spectator, the “common man” of India is no longer mute. The rising number of high taxpaying middle income group with paying capacity, are increasingly demanding a better quality of the state’s sponsored infrastructure. In the face of rising land values, the farmers or land owners have also developed a strong opinion on compulsory land acquisition, commensurate compensation and long term benefit arising out of urbanization. The voice and stance of infrastructure providers like builders and developers from real estate or government sector is also very strong and detrimental to enduser. The aspiration of the diverse actors from urban sector has developed a will of its own, which could not be ignored for very long. Thus, the difference arising out of pluralism is possible to be addressed only through winds of change and by accepting a consultative approach.

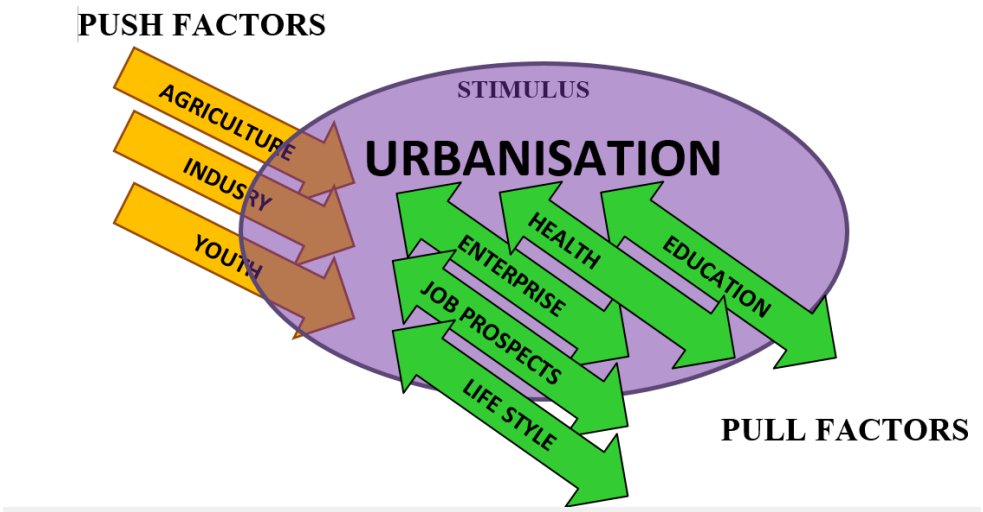


Figure 1.5: Regional Urban Economy a Possible Way Out of Industrial and Agriculture Economy

The State of Punjab in India, was predominantly a rural economy and, yet is rapidly urbanizing in sync with the national and global urban trends. This is evident from District Census Handbook: Sahibzada Ajit Singh Nagar, Directorate of Census Operations Punjab (2011), where urban population of 5,44,611 on an area of 172.03 Sq. km. This is more than the rural population of 4,50,017 on an area of 921.97 Sq. km. This is a gross deviation from the national and state population trend. A number of pull factors are working in favor of urbanization and push factors operating against the rural and industrial economy, in Punjab **Figure 1.5.**

1.2.1 Agricultural Economy in the State of Punjab

The vision of the state government, is agricultural development for sustainable growth and rural prosperity, but the rural reality speaks of a different village environment:

- At the ground presence of the land owner is almost redundant as the agricultural management 'funda' of the farming community is to work through farm labour and machination of farming;
- Short term lease of land by land owner, on rental to others for farming or for subservient usages;
- Younger generation may not wish for manual work which is exacerbated with increasing level of education, which is less used for advanced methods of farming. Thus the farmer progeny is looking for better life style by residing in the urban areas;

- High agricultural input versus sale pricing and government policies. Unviability of income from smaller quantum of land due to fragmentation of farmland. A negative role played by the rural money lender (arhatiya);
- Crop failure and farmers suicide in face of falling soil fertility, failure of rains, global warming, climate change and other freak weather conditions like el nino;
- Other aspects like perishability of farm produces and low shelf life and unavailability of reliable farm labour;
- Failing health, cancer and death from polluted water, insecticides and pesticides;
- Higher income from per acre of land in business as compared to if the land is put to agriculture usage. The irresistible stimulus of economic forces favoring development and higher land costs;
- Enabling urban policies of the state government like farmer friendly land pooling and landowner as partner.

Thus, there is a pull factor working in favor of urbanization and push factor working against the rural economy in this state.

1.2.2 Industrial Economy and the State of Punjab

The vision of state government is to promote trade & investment, work for private sector development, create an enabling and facilitative business environment, reduce the cost of doing business thereby opening avenues of business creation and improving living standards for all by fostering economic growth, technological competitiveness and sustainable development, but the business ground reality speaks of a different industrial environment:

- The foremost impediment to growth of economy in Punjab, originates from its weak landlocked location and consequent impaired access to sources of raw material and domestic and overseas markets. Easily accible border with Pakistan with a history of military conflicts is legendary;
- The higher land costs, a fallout of agricultural bounty and financial prosperity adversely impacts conversion of land from agricultural to industrial usage in Punjab. Specially lacking were the quality and public delivery of education and skill development. A direct consequence is a low male literacy rate at 75 percent, although this is equivalent to national average, but is not satisfactory when compared with

other progressive states. Although the female literacy rate is higher, the state is plagued by low female child sex ratio, second only to Haryana a state with the worst ratio. This is a tinderbox condition to ignite drug addiction in the male and younger population of Punjab;

- Punjab is an agrarian economy and the state is perceived not to have much interest in promoting industrial activities. Tardy progress in amending APMC Act has further discouraged adequate representation of private sector in agriculture trade in Punjab and resultant prosperity of farm sector; and
- Many Govt. of India and state policies were unfavorable to Punjab industry like withdrawal of Freight Pool Equalization Policy, levy of octroi/entry tax on raw material, fiscal concessions to neighboring states and unreliable disbursement of industrial subsidies (Ahluwalia, 2008).
- Thus, there is a pull factor working for urbanization and a push factor operating against industrialization, in this state.

1.2.3 Prospects for Younger Generation in the State of Punjab

The vision of the state government is to promote development of an enlightened and prospering Punjab by reinforcing knowledge economy along with a focus on equitable and quality learning. The realization of the higher education department's vision of "enlightened and prospering Punjab by reinforcing knowledge economy" rests on the shift from access to quality which is evident from the key initiatives it has taken in recent past, but the ground reality speaks of a different environment:

- Educated youth, reluctant to perform manual agricultural labor in villages, migrate to cities in search for employment opportunities in the urban areas. Dismal business and industrial prospects as explained above, retard the employment and business opportunities which was seen to result in high degree of frustration amongst the younger generations. Thus, the youth have little option but to find an escape route and solace in partaking intoxicants and drugs;
- This is contrary to the historical image of Punjabi population and a matter of great concern;
- However, young people are inclined to migrate to cities in search of education, entertainment and better lifestyle. Health, recreation, sports and social sectors also offer better infrastructure in urban areas.

- If handled sensitively has potential to offer a solution to the economic and social tribulations of the state.

Thus, cities or urban areas become a magnet or pull factor for aspirations of the youth.

Assessing the agriculture, rural and industrial factors, urbanization could be one of the best options to absorb diverse pull and push factors, counter the agriculture trap, stem the vicious cycle of educated youth caught in drugs due to lack of opportunities in Punjab. Economic growth has shown significant positive linkages with urbanization. Urban India has accounted for about 62 - 63 percent of the country's (GDP) Gross Domestic Product, in the year 2009-10. This growth in urban areas also creates opportunities for the rural economy and helped improve its productivity, especially in rural areas adjacent to urban centres. This is also the view of the Planning Commission on urbanization, elaborated in next sub-section. Thus, rapid urbanization a generator of economy can be a viable option for this border state and a viable way out from the debt trap, an outcome of fighting militancy. This environment requires a deep consideration and analysis by academicians, researchers, industry and government alike.

1.3 Planning Commission of India's Outlook on Urbanization

Recognizing the interdependence between urbanization and economic growth, the vision of India in the Eleventh Five Year Plan was 'to develop the cities in a sustainable manner, so that they could provide the required infrastructure support for the sustained economic growth and development and at the same time also absorb the benefits of expanding economic activities.' Planning Commission Government of India (2007-2012), while stating that large cities are the engines of economic growth and generators of resources for national economic development also elaborate that:

'Urban agglomerations can afford economies of scale in both manufacturing and service activities and also in the provision of infrastructure services. Urbanization should be seen as a positive factor for overall development. This is manifested in the increasing contribution of urban sector to the national economy and ever increasing influence of urbanization on the economic development **Table1 .1.**

master planning in India needs a serious review. 'The experience of evolving and implementing the master plans has not been very encouraging in India because of a number of factors which lend to the effective planning process. Some of the major

factors are the weak information data base for master planning, a lack of resource mobilization, over ambitious plan proposals, lack of integration between the spatial planning with economic development plans, financial constraints and inadequate legislative and legal support and political will, Planning Commission, Government of India (2007-2012 p.5).

Table1.1:The Growing Contribution of the Urban Sector, to the National Economy of India

Source: Report of the Steering Committee, on Urban Development for Eleventh Five Year Plan (2007-2012)

Year	Contribution of Urban Sector to India's GDP[1]
1950-51	**29%**
1980-81	**47%**
2012-13	**62%-63%**
2020-21	**75% (likely)**

1.4 Regional Master Planning and Development

1.4.1 Regional Plan Punjab

Since the study area falls in Punjab, the provisions laid down in the Punjab Regional and Townplanning and Development Act 1995 (PRTD) were touched briefly, in context to Punjab. In accordance with PRTD Act, a regional plan must indicate the manner in which the land in the regional planning area is to be used, propose how the land in the regional planning area should be used. Whether by carrying out development or otherwise, the stages by which any such development is to be carried out, the network of communications and transport, the proposals for conservation and development of natural resource, and such other matters as are likely to have an important influence. A regional plan provides for all or any of the following matters, namely: -

a) Demarcation of areas for agriculture, forestry, industry, mineral development, urban and rural settlements and other activities;

b) Reservation of areas for open spaces, recreation, reserves, animal sanctuaries dairies and health resorts;

c) Transport and communication network such as roads, highways, railways waterways, canals and airports, including their development;

d) Plans for water supply, drainage, sewerage, sewage disposal and other public utilities amenities and service, including electricity and gas;

e) Reservation of sites for new towns, industrial estates and any other large scale development which are required to be under taken for proper development of the regional planning area;

f) Preservation, conservation and development of areas of natural forest, wild life, natural resources, landscaping, heritage site and controlled development, which is either affecting the heritage site or its vicinity;

g) Preservation of objects, features, structures or places of historical, natural, architectural or scientific interest, educational value and heritage site;

h) Areas required for military and defence purposes;

i) Prevention of erosion, provision for afforestation or reforestation, improvement and redevelopment of water front area, rivers and lakes;

j) Irrigation, water supply and hydro-electric works, flood control and prevention of river pollution; and

k) Relocation of population or industry from over populated and industrially congested area, indicating the density of population or the concentration of industry to be allowed in any area.

1.4.2 Key Players in the Planning and Development of a Region: Context Punjab

1.4.2.1 Designated Planning Agencies

Any agency may be designated as aplanning agency,which is assigned any or all of the following functions namely: -

a) To carry out survey of the regional planning area, local planning area or a site for new town, as the case maybe and prepare reports on the surveys so carried out;

b) To prepare an existing land use map and such other maps as may be necessary for the purposes of preparing regional plan and outline master plan, a new town development plan or a comprehensive master plan, as the case may be;

c) To prepare a regional plan, an outline master plan, a new town development plan or a comprehensive master plan.

1.4.2.2 Punjab Urban Planning and Development Authority and other Special Development Authorities

The objectives of the authority shall be to promote and secure better planning and development of any area of the state. For that purpose, the authority shall have the powers to acquire by way of purchase, transfer, exchange or gift or to hold, manage, plan, develop and mortgage or otherwise dispose of land or other property. It can be involved inbuilding, engineering, mining and other operations to execute works in connection with supply of water, disposal of sewerage, control of pollution and other services and amenities.

1.5 Background of Urbanization LendingBase to Research

For long, the dynamics of rural economy was a cynosure for all policy makers especially in India. Green and white revolutions with an objective of making self-sufficiency in food sector were the main causes of this attention. A larger number of population were also residing in the villages of rural India.

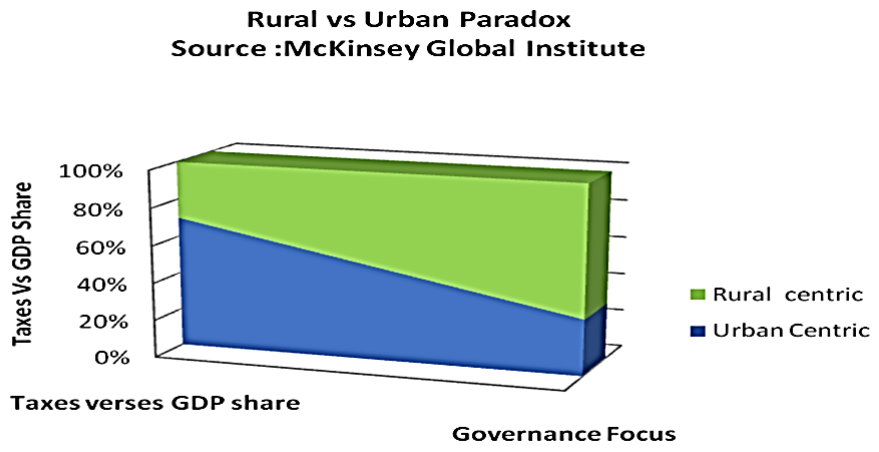


Figure 1.6: Rural vs. Urban Governance Bandwidth, *Source: McKinseyGlobal Institute*

However, the growing trend of urban population and greater generation of taxes versus GDP in urban economy as compared to rural areas (**Figure1.6)** has compelled

governments all over the world, to tilt the fulcrum of governance bandwidth towards the development of region-cities.

Urbanization is a shift of population from rural to urban areas, " a gradual increase in the proportion of people living in urban areas", and the manner in which the society adapts to the wind of change (National Library of Medicine, 2014). It is predominantly the process by which, most cities and towns are formed and expand as more people begin living and working in core areas. Urban areas are spaces with large number of people working or living together in close proximity of each other and account for high density of population. This gives rise to unique settings and requirements that needs special attention for the sustenance of healthy and peaceful environment.

In cities, people are involved in employment other than agriculture and rural sector, so high economic and industrial activity supplemented by education becomes an important component. Well-planned development is critical, since more number of people live per unit of area. Therefore, to prevent areas to become deficit in work force, care taking or care giving persons, it becomes important to spread out these masses in a balanced manner. Most of the western populations are aging and pose concerns to these nations and are on lookout for care givers. Men may not find adequate number of eligible matches with lesser number of females. These are abstract concepts that are required to be dealt with sensitively and cannot be ignored while determining parameters for regional development. Since smarter cities, which are cities which are capitalizing on new technologies and insights to transform their systems, operations and service delivery, attract younger and technology savvy population, creating intellectual capital and knowledge economy, innovation with aesthetical urban architecture and avenues of lifestyle expressions like hotels, clubs, malls and recreation spaces can lead to self-sustainable regions. Yet such citizens may need safety and security not to mention return on money and are actively to be consulted while freezing the parameters of regional settings for a sensitized environment.

Where there is development, physical or tangible infrastructure cannot be far behind and may still feature as the highest criteria on regional desirability meter. But people may not be ready to wait for it anymore and aspire for state of the art and smarter and available earlier in the region's life cycle. In region-cities, the distances also matter so highways, expressways, airport, public transport and sustainable mobility are important. This requirement may be minimum criteria to sustain economy i.e. carry people and material.

Utility services and trunk lines are life-lines of nutrients to keep the city well-oiled and working which transmit water, energy and communication and transpose back wastes which require active treatment. Tangible infrastructure must also essentially cater to urban economy by making available housing, avenues of education, health, markets, and socio-culture but not at the cost of environmental concerns.

Evaluating a place to live or work is possible through indicators which can be stated basically as measures of development. The index of liking may differ for a housewife from a professional or business man. The work and living places are populated by diverse hues of people. Infrastructure indexes, transport, ease of doing business are some of key concerns and need separate attention.

Rapidly urbanizing world puts pressure on development in terms that settlement or growth precedes infrastructure or planning. For an economy to be self-sustaining desirable key components for a city are airport, expressways, regional markets, universities, innovation or incubation centres and industry etc. which are simply not affordable or feasible at local level. There are economies of scale, as this reduces duplication, reduces wastage at smaller scale, brings clarity in jurisdiction, regulation and management by conserving effort through better planning and optimal allocation of manpower and scarce resource. Integrated regional approach to development goes for better planning of physical infrastructure, creation of economic opportunities and balanced development.

Where there is delivery, there are bound to be obstacles. It is important to first and foremost identify barriers by putting a name to these, which can, in turn, aid to discover solutions or shed light on likely resolutions. Barriers can be lack of education, lack of stakeholders' participation, vested interests, hoax deals, procedural lapses, red-tapeism or delays. The list can be endless. Similarly, path to development is awash with challenges which can range from policy level initiatives, rules and regulations, transparency, accountability, efficiency, effectiveness to enforcement. Not to forget legal, financial or physical bottlenecks. Making a good business model through appropriate agencies is call of the day and is critical to build brand equity and credibility of the region.

In the days of judicial activism, Right to Information Act (RTI) and media awareness fuelled by social media, unrest on opaque decisions favoring or disfavoring an individual can have potential for disastrous consequences. On the contrary, a democratic setup allows opportunity to citizens to have a say in matters. Therefore, involvement of

stakeholders in planning process is key to take off this initiative of urbanization,as this allows stakeholders to become partners in development.

1.6 Rationale for the Study

The models of growth and development, regional master planning and plan documents give evidence of a change and acceptance under changing conditions. A unified universal framework is undoubtedly not the answer. This draws the attention of different researchers to propose diverse and varied developmental and regional master planning frameworks in different phases of development. Thus, today too with these changing dynamics of population, with increasing trends of urbanization, extensive consumerism and switching over to greater transparency and awareness of rights in the globalised competitive world calls for a study that focuses on evolving a feasible vision of development for leveraging the use of regional master planning for delivering preferred type of urbanization for the masses. This needed efforts to analyse the factors which are considered important by different categories of stakeholders. It was equally important to study plan documents and analyse the regional master planning and development frameworks of similar states of North India to understand the common components. Using bottom up approach then top down, with inputs from the administrators and experts as well as from three categories of stakeholders, viz. land owners and land assemblers; developers and government; and buyers and investors of property, it became imperative to have a shared vision and propose a broad strategic policy framework for accelerated development.

1.7 The Purpose of the Study

The primary objective of this research is to evolve a broad strategic framework of regional development through the process of regional master planning (RMP), in place of the prevalent practice of local/city level master planning for achieving accelerated development.

In attempting to investigate this concept it is essential to:

R1: To identify the factors and parameters which are important for regional master planning (RMP) for accelerated development.

R2: What is the feasible vision of the development accommodating competing interests of different Stakeholders?

R3: Which are the critical gaps in the current planning process and the success factors or gaps of regional master planning?

1.8 Organization of the Dissertation

1.8.1 Chapter 1 - Introduction

This chapter is introductory in nature, providing a brief overview of the background of the research work. It sets the scene for the research area and problem statement. This chapter introduces the structure of dissertation. The chapter covers the global as well Indian scenarios of population trends and effect on development policies as well as the development of parameters.

1.8.2 Chapter 2 - Review of Literature

This chapter presents results from different empirical studies done on the regional master planning and development. The review helps to understand the emphasis and direction of study undertaken, the scope and limitations of studies conducted, the time periods of the studies, the conclusions drawn from these studies and objectives fulfilled and benefits accrued. It helps to identify the success factors or gaps in the earlier studies and avoid duplication of results and focus emphasis in the right direction.

1.8.3 Chapter 3 - Research Design and Method

This chapter discusses the method of the study. In this chapter, method used for both secondary data and primary data analysis has been described. This chapter in addition also covers the need, scope and objectives of the study. The objectives and hypothesis are also written here. It discusses the different methods adopted in the study, the population of the study, the variables, measuring instrument, methods of data collection and methods of data analysis.

1.8.4 Chapter 4 - Interpretations of Data and Case Study Analysis

This chapter covers the analysis and discussion on responses to all the questions, gathered from various respondents, on the basis of the questionnaire administered to various stakeholders and presents the outcome of such analysis. The chapter starts with the participative stakeholder assessment which includes demographic profile and deals with thestakeholders' profile with regard to area, age group, gender, education, income,

profession, land asset and income from it etc. The chapter also deals with the detailed ANOVA analysis with a view to perceive if variance in the stakeholders' preferences actually exists. This is followed by Tukey's HSD for understanding the group wise behavior of variance and its intensity.

This chapter includes the 'Participatory Stakeholder Assessment (PSA)' for evolving feasible vision of development for leveraging the use of regional master planning for delivering preferred type of urbanization for masses.

Along with the PSA, efforts have been made to incorporate the case studies and this chapter briefly touches the existing regional master planning and development frameworks of similar states of North India and tabulation of some of their common components and listing of the supportingacts, byelaws and policies. In order to understand what is working and what is not and why, these case studies have been undertaken. The administrators and experts dealing with the master plan and development documents of these areas were asked to evaluate or compare their existing plan documents and their implementation with the factors evolved through the research for identifying the gaps or strengths.

A consultative and discussion process with stakeholders for evolving the regional master planning and development including accelerated development has also been undertaken. Finally, the analysis of all the data has been used for proposing a strategic policy framework.

1.8.5 Chapter 5– Conclusion

This chapter covers the research findings, recommendations and conclusions of the study and also highlights the evolved strategic framework of development. This chapter also involves a critical assessment of the work, revisiting the objectives, hypotheses and demonstrating precision, thoroughness, contribution, and comparison with similar work through case study. The chapter also lists the further research areas/gaps.

CHAPTER- 2
REVIEW OF LITERATURE

A review of literature relating to this study is a pre-requisite for research as it aids the investigator to have a proper perspective of the subject and avoid pitfalls and difficulties experienced by the predecessors of the researcher. The planning and carrying out of any research should be preceded by a systematic and thorough review of literature in the related field. It supports the researcher to get conversant with the work that has already been done in the subject area concerned, eliminates the possibility of avoidable duplication of efforts and offers valuable information on the research techniques.

It is apparent that although a very rich and valuable literature on urban planning is available across the world, limited research has been done on integrated regional approach to development in Punjab or even in India. Specially lacking is the assimilation of stakeholders' expectations in planning and development process and respect for their views in policy and strategy formulation. Continuing with the premise of evolving a strategic framework of regional development of an urban agglomeration, it is important to break it down to the basics by systemizing and simplifying the complex relations.

With this objective a brief resume of the researches piloted and are related to the present study will be presented under the following critical roadmap depicted in **Figure 2.1** and discussedfurther in this chapter.

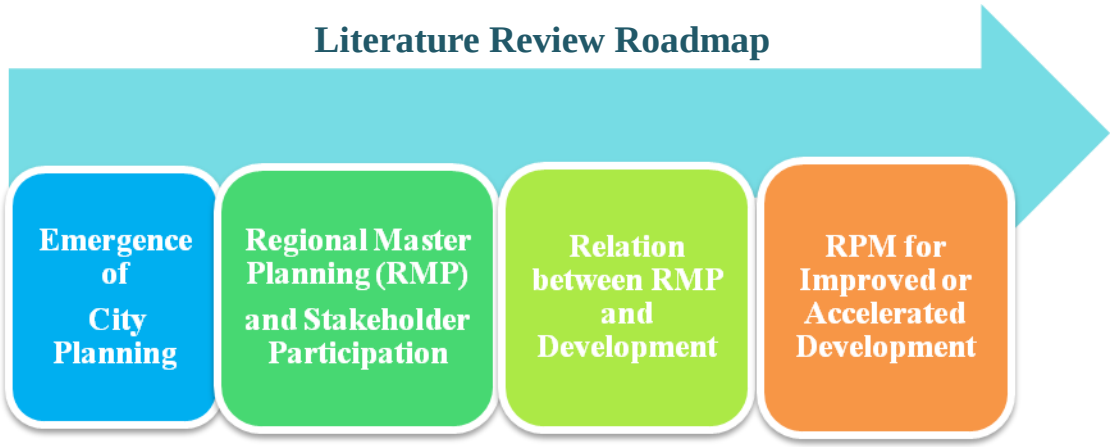


Figure 2.1: Roadmap for Literature Reviews on Various Aspects of Development

Section 2.1 covers emergence of city planning. **Section 2.2** covers regional master planning (RMP) and stakeholders' participation. Relation between RMP and

development has been covered in **Section 2.3.** The next **Section 2.4** deals with literature review on RMP for improved or accelerated development and **Section 2.5** on urbanization and infrastructure and impact on economy and development. The final **Section 2.6** focuses on the identification of research gaps, which couldbe located because of an exhaustive literature review pertaining to the preceding sections mentioned above. The chapter ends with concluding remarks.

2.1 Emergence of City Planning

Judicious planning of India's land resources is warranted by the rising density of population from 325 persons per sq. kilometer in 2001 to 382 persons in 2011.Kulshresta (2012) says that there is strong correlation between human population and land utilization. With density estimated at 502 in 2050 the share of land per person is going to fall to 0.199 ha/per person. Urban and rural spatial planning and urban and rural sustainable land development are key challenges which India will face shortly. With this understanding it was justified to dwell into the past to examine the emergence of the human settlement and to learn from historical evolution of region-cities.

Cities had come into existence, when agrarian societies were transformed into economies with trade and commerce base. Mohenjo-Daro and Harappa in Indus valley and the Roman Empire in Europe weresome fine examples of trading cities. The layout of these cities had well laid down town planning with integrated utility services. These ancient developments formed an inspiration for modern day European cities. It becomes important to trace the evolution of cities into megalopolis, and identify the key drivers of progressive urbanization from village to conurbation.

The Early humans had led a nomadic existence. The key factors responsible for urban revolution were the surplus production of storable food, evolution of a complex social organization, a system of writing and technological advances like a potter's wheel, a loom and science of metallurgy. The agricultural surplus from the neighboring countryside were regularly processed and distributed in the nearby cities. Cities also sprang up and spread out around the marketplaces, where goods were brought from distant places were bartered for local products. Throughout history, cities were mostly founded at the intersections of transportation nodes or routes or at the junctions where goods were shifted from one of the mode of transportation to another, say at ocean ports or river.

The evolution of city was either organic, planned or unison of both resulting in complexforms derived from below mentioned concepts: –

- Walled or power centric capital cities with large public spaces and typical monumental buildings, York in England, Jerusalem in Israel and FatehpurSikri and Delhi closer home in India are some of the examples;
- Democratic or colonial capitalswith radial layouts like Washington, DC and Connaught Circus in New Delhi;
- A rigid grid iron configuration conceptualized for Chicago and adopted in Chandigarh & S.A.S Nagar (Study Area); and
- Transit Oriented TypeDevelopment (TOD) with narrow linear layout suitable for railroad and mass passages of rapid transport corridors like Mumbai and as presently proposed for Delhi.

Ellis (2005) traced the city building through a long and complex history by juxta-positioning historical with contemporary perceptions. He stated that city planning as an structured and systemized profession had existed for around a century. Yet all cities display varying degree of forethought and mindful designing in their function or in their layout. The physical elements of a city can be divided into basically three categories: buildings, networks, and open space to be used as building blocks for development. He further stated that although technologies have developed gradually to reorganize the land to suit the human and habitation purposes, yet the cities must conform to the landscape in which they are located.

Similarly, in ancient India the town planning principals, adopted in the Indian settings was either grid iron or radial or an amalgam of two. Towns were actually a congregation of many villages that could be compared to municipal corporations (Gupta, 2013). Throughout the history many alternative arrangements of these components have been tried, but no ideal city form could ever have been agreed upon so far.

Abercrombie (1923) researched regional planning during the nineteenth century and concluded that with many instances of whole towns laid out by a single owner the estate planning and town planning tended to coincide and merge. Earlier on the towns were planned on the narrowest basis, that of “the estate”, but, with the coming of industrial revolution, land parcelization more for sale intentions had determined the planning criteria. He had felt that, a town was a higher form of organism rather than a mare object made out of individual cells, i.e., it requires heart and arteries as well. In Europe, this

structure took the profile of natural radiation of country roads, which gave some sort of structural form to the innumerable bunches of unicellular growths. While in America and Canada the newer countries without historic roads, a rudimentary form of town planning in the form of a chess board in the city of Chicago, for example of one mile square, within which the lesser estate developments were fitted in. He found both the English national arteries and the American gridiron as a limited solution, breaking down under the unexpected strain of the latter part of nineteenth century

The First National Conference on City Planning ensued in 1909; a date to mark the inauguration of a new profession says Ellis (2005). It could safely be concluded that within 100 years a time has come when city as an independent unit module had become too delimited to be sustainable. The economies and businesses had created global outreach, raw material required international sourcing and supply chain had extended several time across the global structure.Yet, this is a very constricted perception for a globalized, privatized and liberalized world where local economy is linked to international markets in region-city.

The local government scale was viewed too insignificant to be economically viable in the overall global economy. The 'city' in its narrower definition seems inadequate as a framework for contemporary local or regional planning and policy. Therefore, the new focus of regional coalitions should be on the metropolis as a whole and not just the central city or suburbs independently. Physical infrastructure like airports, terminals, depots, ports, universities, wholesale trade, highways, massrapid transport are likely to be affordable only at a regional scale.

Ellis (2005) also researched that human resources are important components of the development story. Modern cities are involved in a competition for economic and other resources such as government facilities, corporate headquarters, industrial plants, high-technology firms etc. Cities try to attract the investment with a number of features like low-priced land, skilled labor force, utility infrastructure, low tax rates, improved transportation etc. The decisions regarding the location of businesses and individuals are influenced by the availability of amenities, facilities and services such as elegant architecture cultural activities, proximity to recreation parks and climate etc. Many older cities find it difficult to subsist in this new economic game. Abandoned by traditional industries, they try to build new economic base with the growth sectors in the high technology areas. Cities no longer have to compete in mere regional or national markets

today: the markets are now international ones. Enormous sums of money transferred around the globe in instantaneous e-transactions. Cities struggle for survival in this volatile environment in which the rules are ever changing. This makes city planning & development more challenging than ever before. Later the city became a checkerboard on which players speculate on shifting land values where rather than religious, political, and cultural imperatives, it is mainly the market forces which are allowed to determine the configuration and direction of urban growth

A 'city' seemed inadequate as a framework for contemporary local or regional planning and policy [Scott (1988); Ascher (1995); Sievers et al.(2005); Salet (2006)]. Sankhyan (2009) opines that it is not too late to look at the concept of development as a sustainable, holistic and integrated affair at a local, regional, state or national level. An irreparable damage to regional planning, heritage and environment had already been caused by piecemeal, disorganized and skewed approach. Sectoral economic planning has led to massive disparities and gaps. Thus, for a developing country like India, where there are vast disparities, the regional planning is the only alternative to overcome such problems.

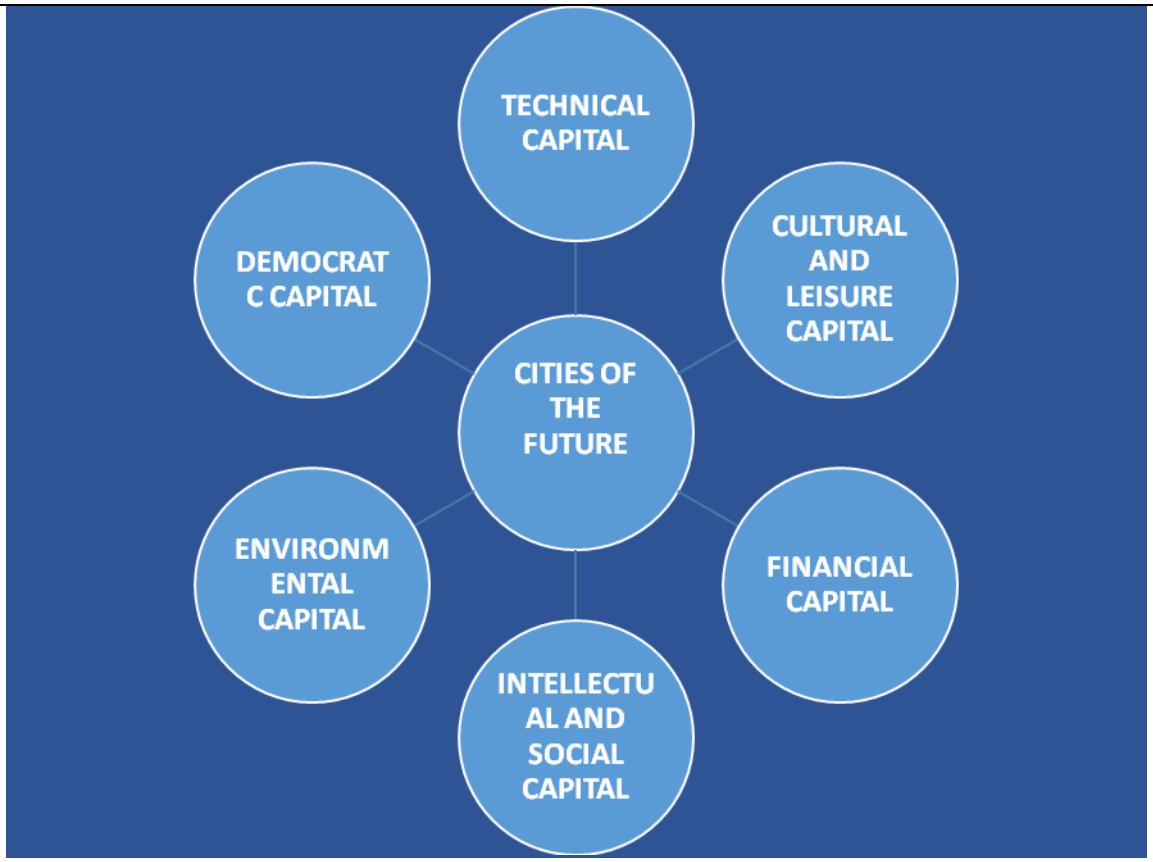
Thinking beyond local, unifying compatible cities and countryside with effective connect, balanced utility and social infrastructure is the outcome of researches cited above. This warrants a closer examination and is covered in the following section.

2.2 Regional Master Planning (RMP) and Stakeholders' Participation

The local government scale is increasingly viewed to be too small for economic viability in the worldwide economy, and the 'city' in its narrower definition seems inadequate as a framework for contemporary local/regional planning and policy. Therefore, the new focus of regional coalitions should be on the metropolis as a whole, and not just the main city or suburbs independently.

Gordon & Buck (2005) hypothesize that once a region-city in its original Greek Metropolis meant mother city, implying that the urbanized area had a dominant economic, cultural and political position in a region, It was characterized by a large concentration of functions and activities. Cities as urban settlements with a large population had become region-cities which can be very successful in terms of economic growth and there are great incentives for region-cities to actively promote positive

locational characteristics in their region. These regions are interdependent and also compete not only with each other, but also with the rest of the world. In a progressively globalizing global economy, the status of being a metropolis appears to be very attractive and perhaps even a necessity.



Capital	Focus
Intellectual and social capital	People and knowledge resource
Democratic capital	Transparency, participation and partnerships
Cultural and leisure capital	Values, behaviours and public expressions
Environmental capital	Natural resources
Technical capital	Man-made capital, infrastructure
Financial capital	Money and assets

Figure 2.2: The Cities of the Future
Source-The Cities of the Future (Price Waterhouse Cooper)

Regional planning is depicted as planning and design of infrastructure and zoning for the sustainable growth of a whole region in a comprehensive manner, for a proficient placement of land use activities, infrastructure, and settlement configuration across a

larger area of land than an individual city or town. The graphical depiction is given in **Figure 2.2**.

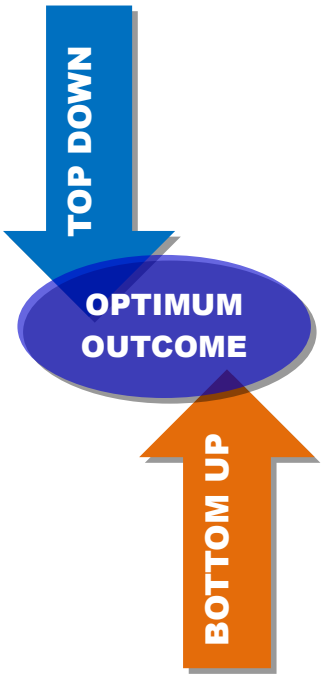
This metamorphosis of the city as a result of the emergence of multi-nodal cities in Europe marked a new stage in the historical trajectory of urbanization was stated in unison [Scott, (1988), Ascher (1995), Sievers*et al*. (2005), Salet (2006)].

Keeble (1969) opined that a planning region is an area that is large enough to enable substantial changes in the distribution of population and employment to take place within its boundaries, yet small enough for its planning problems to be viewed as a whole. While Klaassen (1965) believes that a planning region must be large enough to take investment decisions of an economic size, able to supply its own industry with the necessary labor, should have a homogeneous economic structure, contain at least one growth point and have a common approach to and awareness of its problems.

In a short anthropological span, human population has exploded out from village settlements to cities, metropolitans into megalopolis and conurbations. Time is ripe to drop local and go regional, but such tasks cannot be accomplishment in isolation as it requires land, finances, knowhow and co-operation. This is a task that cannot be done without the involvement of residents and local communities and consultative approach. There is a need to delve into it further to find out what researchers say about regional planning and stakeholders' participation.

Roy and Ganguly (2009) studied the experience of West Bengal regarding their draft development plans (DDP). Participation of multi stakeholders in the urban and regional planning is a well-accepted norm in present day practice. Recently, programs designed with a concept of self-help that advocated for the poor and oppressed, were made a part of the planning and development process. This had ensured some role of stakeholders in the planning and government schemes. However, the prevalent community participation theory suggests that bureaucrats and politicians had exploited common people and they stand excluded from the development process of the community.

Sanoff (2000) also evaluated the merits of a participatory plan and the standard conventional planning prepared on master plan or better defined as top down approach given in **Figure 2.3.**



- Through participatory land-use planning, local people could to get the feeling of ownership of the development plans.
- The advantage is that, there was a larger probability that they would implement the development plans willingly without resistance and that the activities and impacts would be sustainable.
- Due to lack of expertise general public is unable to manage their own plans properly, in the long run. Therefore, to balance both, multi-specialty groups must be engaged to integrate the needs of the people, the stakeholders' inputs and futuristic and proactive planning development.
- Initially adopting a bottom up then subsequently a top down approach may bring out an optimum outcome.

Figure 2.3: Approach for Optimum Outcome

Ironically, throughout the country as well as in states and even at local levels as 'system resists and adhocism persists' due to predominance of vested socio-political forces, the target assigned by the Constitution could not be achieved Sankhyan(2009). Most of the town and country planning acts of states provide for regional planning, yet there was more focus on town planning because of a need of immediate redressal of problems of urban areas. There was a lack of committed approach and compounded by a limited qualified manpower.

Regional imbalances are however required to be tackled by preparation of national, state and regional plans. Long term transport plans for roads, railways, air and water, addressing all states and micro-regions of the country are critical. These were required to be brought within the framework of holistic spatial plans of states or regions and that of the country. Holistic regional planning and sustainable development has considerably been delayed. All the stakeholders and the public are required to come forward to accomplish this stupendous task for the cause of present as well as future generations, on one hand and environmental and heritage imperatives, on the other.'

Summing up this section it can be said that reality is that historically urbanization has been mostly organic or at best an after-thought. Accordingly, empirical studies associate regional planning to integration of already urbanized minor areas. Due to the need of immediate redressal of problems of urban areas a piecemeal, haphazard and lopsided approach has been adopted which has done irreparable damage. Thus, it could be said that the concept of green-field macro planning at regional level is long overdue.The task is becoming increasingly challenging due to rapidly shrinking availability of land and other resources and changing role of government from developer to regulator and enabler. Stakeholders' participation in the development process voluntary or otherwise is mandatory for the cause of present and future generations and should not be excluded or omitted from the formulation of development strategy. Thus, identifying the factors and policy parameters, further evaluating a common denominator and assessing feasible demands emerges as a key aspect in the regional development strategy. In view of evolving cityscapes, a strategic framework of development through RMP sensitized to the stakeholders' feasible vision using PSA is desirable.

2.3 Relation between RMP and Development

Settlement structure's pre-conception prior to development, was an accepted practice in historical past or even in the recent times and its merits were never denied. Regional urbanization had infinite myriad facets and is correlated to design factors, is covered in this section to understand the view point of a cross section of researchers from diverse backgrounds.

Articulating balanced development, Kukadapwar (2004) emphasized that regional planning should aim at developing larger areas through the establishment of growth focus and by linking the different central places, service centers, growth centers and growth poles in an integrated manner, past experiences have shown that attempts to achieve regional balance by mere distribution of new industrial and other projects can't achieve the objective of balanced regional development.

Chakravorty's (2000) *view on the obligation of development,* resolved contradictory theory with evidence from India. The study focused on the relationship between the new reformed state, its policies and the resultant development impact, at the sub-national or

regional level. Historically, the state had been instrumental in shaping the economic geography of regions in the developing world, starting with the establishment and privileging of port cities for external trade and administration during the colonial period, to the creation of a complex array of rules and regulations that established locational incentives and disincentives. In the old nationalist model, the national state tried to be the principal agent of economic change using an institutional and regulatory structure. Presently, if the governments will not or cannot be any more involved, and the private sector cannot be induced into involvement until some local political-economic problems are resolved, then these local problems may not be resolved without investment, which is a vicious circle.

Vision must set the tone for development, discovers Phatak (2011). Mumbai Metropolitan Region Development Authority hoped to transform Mumbai into a world class metropolis with a vibrant economy and globally comparable quality of life for all its citizens and chalked out a business strategy.Although long term plan can provide framework for development control, but in Mumbai Metropolitan Region (MMR), it did not induce positive actions considering that the actions transpired only in response to current problems in hand, not Vision.Since financial strength determines decision of 'Planning' vs. 'Projects', pronouncing judgment on quality of outcomes, is a very difficult task!

Preserving environment and development not at nature's cost, is what Kumar (2010) opined. A paradigm shift was called to ensure a healthy environment for the well-being of present and future generations. Humans must have the wisdom and sense of responsibility so that a cleaner and safer earth planet is handed over to the future generations and the pollution free environment is shared by all nations with equal share of resources available on this planet earth.

Instruments of co-ordination and monitoring vast fragmented areas of regions are a must for maintaining urban sensibility. Meenakshi (2009) established that Chandigarh Metropolitan Complex with jurisdiction of three administrative entities, namely, Union Territory of Chandigarh and the states of Punjab and Haryana, had spreadin the form of uncoordinated developments which might become detrimental to the character of the area in question. Considering Chandigarh's vast potential to serve the region, its constraints to physical expansion and the extreme dependence of its surrounding settlements, the development would have to be ensured through coordinated efforts of three administrative entities. This would mean an integrated framework relating to population

redistribution, land use pattern, environmental factors, economic activities and infrastructural facilities. The development impulse of Chandigarh must spread to the entire Chandigarh Metropolitan Complex (CMC) as one unit identifying factors. The Periphery Control Act, in the context of changed circumstances had lost its intent, and remains no more effectivein controlling the developments in Chandigarh periphery. It became important to provide a suitable legislative base for an integrated planning approach. In this context, National Capital Region Planning Board Act, 1985 could serve a useful reference. An act may be formulated specifically for the CMC, envisioning the development plancovering coordination, monitoring and harmonized policies for control of land uses and development of infrastructure.

*Integration is the axio*m, according to Chapman (2011). The relationship between master planning and developmentcan spawn a renewed attention to integration between the diverse interests. This must focus on different spatial and temporal scales related to the dissimilar instruments and approaches that are used in practice. It was concluded that more effective processes of analysis and appraisal, through public engagement and multi-disciplinary work, could provide a knowledge base which would foster more integrated strategic development planning and place-making inherently. McLoughlin (1994) also brought that integration in this sense is endemic to planning of town with country, city with periphery, urban with rural and city with region to the economy and society as a whole. Further resolutions to problems could be found by integrating policies of one region with the other region.

Development requires management articulates. Upadhyay (2013) explored the role played by the balance of class power, the nature of the governance regime and the policy framework. It was to relook at the old debate focusing on how the initial conditions and nature of growth affect wealth and its distribution. The results highlight that inequality has been on the rise in the period of growth as well as in the period of stagnation or recession. Changes in income and wealth distribution are completely independent of different phases of growth cycle. Time and again researchers have carried out studies focusing on developmental issues and suggested a range of economic, infrastructural, financial and management factors.

Sharma, Borna and Stearns (2009) argued that employees' perception of organizational fairness will create perceptual distortion of corporate ethical values (CEVs).The results of the study indicated that perceived fairness moderates the influence of CEVs on two

seminal outcomes, namely, job performance and commitment. The study offered prescriptive and descriptive insights to both academia and industry to understand the influence of CEVs and fairness on the performance outcomes of employees. Darwish, Singh and Wood, shed light on the relative reliability of management perceptions that the only HR practice seen to consistently impact both objective and subjective performance was therelative emphasis placed on training. The latter is an ambiguousmeasure, and, inter-alia, can reflect a long-term commitment by organizations.

Salim, Mamum, and Hassan (2015) examine the role of communication technologies (CTs) in Australian broad acre agricultural production using data over the period of 1990-2013. The empirical results demonstrate that CTs affected agricultural output positively in the long run. The elasticity by him, estimated that the government policies that lift investment in telecommunication facilities contribute to an increase of output in Australia's broad acre agriculture in the long run.

Competition for growth opportunities and survival in market places is a basic need of sustained development. This is well researched and emphasized by a cross section of researchers. Beginning with Goyal (2008) who highlighted that an effective and efficient Management Information System was essential to compete and emerge successful in a global competitive environment. Sectoral studies focus on retail development in the modern era. Retail space and retail focus was needed to be added for enhancing chances of luring stakeholders to certain planned colonies. According to Borna, Stearns, Smith and Emamalizadeh (2008) image creation was a major component of retail strategy and remained in as schematic memory, sometimes called knowledge structure, as a result of many different stimuli. Miller (2000) expressed that although services, in general, have increased in significance worldwide, financial services face a less encouraging future. Market saturation has led to a search for growth opportunities. Straughan and Miller (2001) opined that cultural individualism is negatively correlated with loyalty to domestic retailers, uncertainty avoidance is positively related to loyalty to domestic retailers, the ratio of foreign imports to GDP is negatively correlated, and men exhibit greater loyalty to domestic retailers than women do. Age was not a significant predictor. Entrepreneurial development focused on difference in barriers and challenges on the basis of gender Singh and Belwal (2008).There are studies covering the micro and macro dimensions. Yannopoulos (2011) highlighted that that low share firms may use strategies to overcome the advantages of large firms and compete successfully against them. These strategies

include: strategic interdependence and interaction, strategy as the search for competitive advantage, the element of surprise, creating mixed motives for competitors, concentration of force, and the path of least resistance.

The study by Durai, Upadhyay and Tiwari (2000) focused on the importance to rural infrastructure for development. It shows that the connectivity of rural roads over the years had remained polarized in villages with high population and the economically developed areas. The states with a high number of villages with low population distributed over a large area were being neglected. Given the massive financial requirements for the construction of a large network of rural roads, it is suggested that appropriate methods in planning and implementation of road projects should be adopted.

Kumar (2009) advocating spatial integration in planning and its frame work felt a need for spatial integration of fragmented structures. A likely reason could be a multiplication of governing structures and institutions from district regional planning on one hand and metropolitan regional planning on the other. In market led planning integration is left in the hands of the market, where state acts as a regulator and enabler rather than provider, which has led to weakening of government and strengthening of the private and voluntary sectors. Spatial planning largely depends on government policy framing and implementation where integration is achieved through interaction and consultations. Lack of integration among public, private and voluntary sectors in respect of land and real estate development have thus led to spatial conflicts, common due to non-coherence of activities of the public and private sectors. Thus, territorial integration of vertical and horizontal, and spatial conflicts can be resolved provided there is cooperation and willingness. There is a need for spatial integration among policies, territories and stakeholders to glue together fragmentation through multiplication of governing structures and institutions from district to metropolitan regional planning to avoid wastage of resources and overlapping efforts,

Chakravorty (2000) felt that it is now necessary to formulate a new theoretical framework of regional development, to reach the lagging regions for balanced development. Questioning the limitations as to how growth and development could reach the lagging regions; and how reforms could be sustained for a long term. The study tries to hypothesize that advanced regions continue to prosper further attracting private and government investments. If the pattern of coastal bias continued regardless of the resolution of the local political-economic situations, is the development of interior

possible without state intervention? This study was not designed to answer these questions; however, India's political-economic future may depend on finding pragmatic answers to these questions. Since, study by Chakravorty identifies many research gaps, as a way forward it seemed mandatory to formulate a new theoretical strategy for regional development to address these problems.

Summing up the learning from RMP and development, it could be brought out that there are various economic, financial, human resources or managerial dimensions that need to be included in the planning perspective. Advanced regions could continue to prosper further attracting private and government investments, while growth and development may not reach the lagging regions. If the pattern of bias is likely to continue, then reforms cannot be sustained for a long time. Economic approach would be sectoral and optimal utilized of land as an asset is less likely to take place.

Although, the development does take place without Regional Master Plan (RMP), but it is most likely to be piecemeal, driven by market forces and in accordance with the availability of resources rather than with actual balanced design and development criteria. This can result in ribbon development, leaving hinterland inaccessible and underutilized. Growth is likely to be skewed, exhibiting deficit of high investment- low or longtime return components like socio-cultural, sports and health Infrastructure and trunk Infrastructure, expressways, Sewage Treatment Plant, disposal management and regional or national level institutes etc. In the end bargain, the citizen is the ultimate sufferer. As a result it is now necessary to formulate a new: "Framework of regional development" for balanced and sustainable growth.

2.4 RPM for Improved or Accelerated Development

Robinson (2003) called for a robust urban theory that can overcome 'asymmetrical ignorance' of Euro-American cities compared to cities of south where the future lies. The region-city is conceptualized as a building block of the global economy and was thus the key space of accumulation, competition, and governance. A framework linked up the dominant narrative of global or world cities. Castells's (1996) theories of 'spaces of flows', mapped a hierarchy of region-cities where agglomeration economics were writ large. But it was also a Darwinian ecology of cities: the survival of the fittest in the keen

competition of network capitalism. In the alpha-beta-gamma worldwide rankings, 'mega-cities' were usually off the map, seen as 'big but powerless' entities, while global or world cities are presented as nodes of a globalization that is uni-dimensionally driven by finance capital.

The 21st-century metropolis was a chameleon. It shifted shape and size; margins become centres; centres become frontiers; regions become cities. According to Baudrillard (1986) they had not destroyed space; they had simply rendered it infinite by the destruction of its centre. The 21st century metropolis makes a fool of census jurisdictions, of the mappings of city and suburbs, and confounds the easy narratives of regional change, including those that emphasize agglomeration and innovation. A more worldly theory of the 21st-century metropolis has drawn heavily upon the third strand of modern imaginings: a 'worlding' of cities such that the standard geographies of core and periphery are disrupted and dislocated. Through an engagement with new geographies of theory, it is sought to update and rework these theorizations.A fresh approach may dramatically reconfigure the signifier, 'global', that seemed to have become an ubiquitous presence in the theorization of region-cities It is known how to map the 'global' through Darwinian hierarchies of region-cities; muchless was known about the complex connections, exchanges, and references through which cities are worlded. The world is not flat, and it is time to produce a more contoured knowledge of its cities.

Athey (2010) opined that Governments play a role in facilitating or enabling growth in certain growth firms or industries.Industrial policy was alive and well, and there were successes, despite those who deny government has a role in economic development. As a report from the UK's National Endowment for Science, Technology and the Arts (NESTA) recently put it, intervention driving growth is the norm, rather than the exception, in modern economic history. Medway and Mateos-Garcia (2009) and Lerner (2010) concluded that appropriate industrial policy is a necessary prerequisite to the development of successful new industries. Silicon Valley is possibly one of the greatest government interventions of all time, not to mention Dubai, Finland, Singapore and Taiwan. Local organisations and authorities can and should play a role in industrial policy in shaping the competitive business environment in their areas, as well as troubleshooting specific problems or challenges.

According to Leonie (2011) global processes of growth and change- economic, social and cultural- have served to thrust cities and region-cities into larger arenas of development,

generating development opportunities, as well as more problematic conditions. The forceful incorporation of cities into global systems has in turn also imposed stress on urban-regional policy capacity, within such domains as land use and zoning, urban design and building bylaws, finance, public infrastructure and services, and community and social planning (Porter, 2001; Scott et al., 2001).

There was significant empirical evidence to suggest that the coordination of economic policies across the region-cities is conducive to economic performance, contributing to the new city-regionalism in the United Kingdom (The HM Treasury, 2006). Cities as urban settlements with a large population have become region-cities which can be very successful in terms of economic growth and there are great incentives for region-cities to actively promote positive locational characteristics in their region (Gordon and Buck 2005). The Government policies, schemes and technical tools also play a vital role for improved strategy framework, planning, development, monitoring and decision making.

Dawley et al. (2010)were of the view that local economies with lower skills, lower employment rates, and lower levels of specialization are particularly exposed to the crisis because they offer limited compelling reasons to retain investment and jobs and are based on competition largely on priced based factors which erode significantly in a down turn. Higher skilled, more specialized local economies, with greater employment rates, and more differentiating factors were tending to fare better, even when they include significant financial services employment, because these economies were more diversified and more competitive.

Ineffectiveness of dealing with the issues of infrastructure development through regulations evolving out of isolated master plans were been discussed by Paul and Goel (2014) in the context of Himachal Pradesh. The problems of infrastructure development, especially in hills, need comprehensive solution, be that transport, resource management (water, material, energy etc.) or environmental disasters. Eco-system has regional context and not limited to revenue demarcations of individual local bodies. States like Himachal have witnessed haphazard developments contiguous through-out the region but the regulatory framework recognizes urban-rural divide, which is a fallacy. Authors have amplified the argument with examples of Kangra Valley as a region with similar issues across urban developments. Nauriyal and Sahoo (2010) opined that besides the traditional factors such as land technical progress, physical and human forms of capital, development, expenditure, infrastructure, education, health, urbanisation, irrigation play

vital role in the growth of state domestic product. They elaborated that overall effectiveness of public investment and growth prospects of poor states could be improved by higher investment in infrastructure-social and economic.

Figure 2.4: RMP for Improved and Accelerated Development

Chaudhary and Hoque (2004) gave due importance to project financing as it brings out the context and linkages between shareholders, joint production menus, inter-sectoral and inter-agent interaction, leading to consensus on ways to do things which could be useful for development.

Review of RMP and accelerated development highlight that the regional master planning and development strategy defined by economic and geographical parameters is critical to optimal growth. Wide-ranging concepts for master plans comprising the RMP were chalked out in the development strategy. The acceleration of development arises out of the selection of concept for the master plan and it is a way forward. The growth can be driven by design or intent or by unprecedented and unforeseen factors. However, development at macro level though regional approach does lead to improved and optimal growth, most likely with less wastage of resources and it was more inclusive too. The stakeholders can play an important role in identifying the emerging sectors or technologies and relative importance of the missed out components. This in turn can

result in setting priorities, optimal allocation of scarce resources towards competing demands, deserving or missing components, thereby evolving strategy for regional development framework. The government policies, schemes and technical tools also play a vital role in the improved strategy framework, planning, development, monitoring and decision making **(Figure 2.4).**

2.5 Impact of Urbanization and Infrastructure on Economy and Development

Urbanization has made a profound impact on every aspect of human life, including work and businesses and had contributed tremendously to the competitiveness of our nation through social and economic empowerment enacted by development. Today, connectivity, convergence, transportation and infrastructure are the new mantras for success of the new "Global Economy." High technology can project unequals on an equal footing, which makes it the most potent democratization tool ever devised.

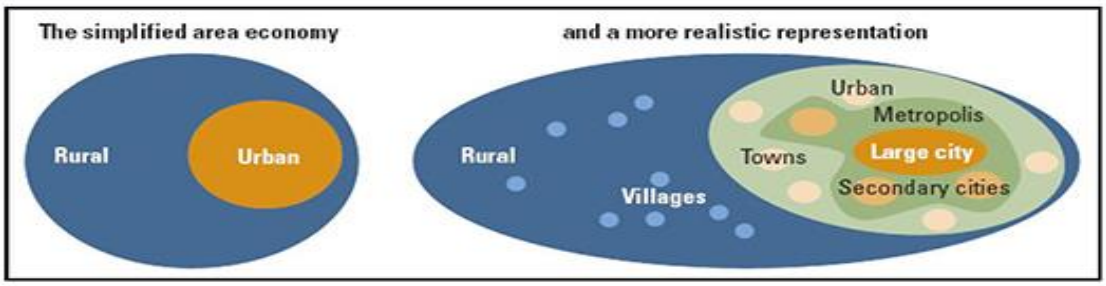


Figure 2.5: Spectrum of Rural and Urban Settlements

Source: world Bank 2009

Rural and urban sectors have been perceived as two ends of spectrum rather than a gradual blend of tints, shade or hue i.e. from villages, towns, cities to metropolis (Figure 2.5). Meaning thereby, that there exists at the urban and rural fringes, a dynamic synergy between these usages which enriches the economy through mutual inter-dependence. For example farm produce and milk is supplied by villages to cities, while work force in city offices and industry may come from rural areas. Thus, the economies are interwoven and are required to be covered under regional program for provisioning of better linkages, than being conceived as two different entities.

Urbanization has been recognized as the engine of growth and a source of energy for the social and economic empowerment of any country, specially a third world country.

Relationship between regional planning and economic growth is increasingly being recognized world over. Equal opportunity represents major concerns about the opportunities and challenges that lie ahead for countries, societies and their stakeholders which could be the common citizen, the elite, rich and poor, trade and business, students and academia, bureaucrats, politicians or the governments. Today, governments are empowering masses through opportunities as it can prove, to be effective short-cut to higher levels of equity in the emerging economies. Framing development strategies and policies are complex exercises which encompass a variety of issues.

2.6 Identifying Gaps in Research

Learnings from a cross-section of researchers have been produced in this chapter, with an objective of identifying the un-researched or less researched areas. This approach can lend supportin problem identification so that probable research area, frontiers or gaps can be located and established. An array of researches were summed up section wise, however some outcome are highlighted below:

- Policy makers do, of course, have an interest in managing change and assisting successful transitions. Planning Commission (Government of India) while establishing the importance of regional and master planning for economic development had emphasized the existence of critical gaps in implementation methods thereby requiring a serious review of the strategy.
- Identifying commonalities among the drivers of change for regional development-is it policy, endogenous drivers, exogenous shocks, technological imperatives or other? What, specifically, are they and how do they operate and what are the implications of these for policy makers at the local, state and federal levels
- The development can proceed at an accelerated rate only when the output is universally acceptable and optimal for all stakeholders, viz. citizens, policymakers, implementers, businesses and the end users. Therefore, there is an urgent need to elicit feedback through “Participatory Stakeholder Assessment” (PSA) which can be an important aspect for evolving a feasible shared vision of stakeholders and acceptable Regional Development Strategy. Hence, there is a necessity to identify stakeholders covering the entire gamut of activities which could be broadly proposed under three

groups- the supply side, the demand side and the supply-demand side. The feedback could be gathered through self-designed questionnaire for generic issues and semi structured interviews for specific issues. Study of demographic profile, implementation challenges and economic understanding can also be built from this data.

- The concept of green-field macro planning at regional level is long overdue. The task is becoming increasingly challenging due to rapidly shrinking availability of land and resources as also the changing role of government from developer to regulator and enabler".
- This view further finds support from the literature review that a large number of Global-region-cities, while integrating with the international economy and accelerated development, find the existing strategies inadequate. Urbanization is a complex program for which researchers identified a number of factors and postulated varied interpretations.

Thus, literature review had yielded an understanding about a number of important issues regarding urbanization planned development, stakeholders' status, present regional development documentsand supporting laws with their critical gaps. The study has further strengthened the idea that urbanization is an engine of growth [Scott, (1988), Ascher (1995), Sievers*et al*. (2005), Salet (2006)];and planned development plays an important role in achieving economic and social objectives for which regional and master plan is an important tool [Roy and Ganguly (2009); Sanoff (2000); Kukadapwar (2004)]. Government of India Planning Commission, in its Report of the Steering Committee on Urban Development for Eleventh Five Year Plan (2007-2012), while stating that large cities are the engines of economic growth and generators of resources for national economic development had elaborated that:

> "Urban agglomerations can afford economies of scale in both manufacturing and services activities and also in the provision of infrastructure services. Urbanization should be seen as a positive factor for overall development. This is manifested in the increasing contribution of urban sector to the national economy and ever increasing influence of urbanization on the economic development.
>
> The Master Planning and Regional Master Planning are one of the most important instruments of urban planning for development. The existing status of development and implementation strategies for Master Planning in India needs a

serious review. The experience of evolving and implementing the Master Plans has not been encouraging in India because of a number of factors which lend to effective planning process. Some of the major factors are the weak information data base for master planning, lack of resource mobilization, over ambitious plan proposals, lack of integration between spatial planning with economic development plans, financial constraints and inadequate legislative support and political will."

Stakeholders' participation, voluntary or otherwise, is required for the cause of present and future generations and stakeholders should not be excluded from the formulation of development strategy [Gordon & Buck (2005); Goyal (2008); Durai, Upadhyay and Tiwari (2000); Phatak (2011); Chapman (2011)]. Evolving Framework of Regional Development through Master Planning with stakeholders' input is step in right direction and appropriate as a subject for this research.

2.7 Concluding Remarks

It may be observed from the above mentioned review of literature that some pioneer work has been done by various researchers in islands of components of regional planning and development in so called developed countries and developing countries including India. However, there is a need to work on a comprehensive and integrated strategic framework for regional approach to urban planning and development with an Indian perspective. The study had proposed to fill this gap by conceptualizing *"Framework of development through regional master planning"*.To accomplish this study proposes to identify key factors and parameters of development of regional master planning (RMP) using "Participatory Stakeholder Assessment" (PSA) respecting stakeholder's expectations. The study also aimed to generate an optimal/feasible vision of stakeholders for a developmental framework by leveraging the "Participatory Stakeholder Assessment" (PSA). Critical success factors as well as the implementation gaps in the existing regional frameworks in comparison to evolved framework factors were also intended to be identified through case studies with input of professionals, high officials and administrators. Finally, it was also envisioned to evolve "A broad strategic framework of development through regional master planning" using Participatory Stakeholder Assessment (PSA).

C H A P T E R -3

RESEARCH DESIGN AND METHOD

This chapter elaborates the step by step approach employed for the research. Choosing the right research design and method was considered one of the most important aspects of the research process for targeted outcomes. Today very potent and scientific tools are available which make the process faster, pain free, reliable and accurate. Questionnaire based primary data, secondary data, information published by the state entities on the internet and in-person interviews and observations were also chosen for the present study.

In the preceding chapter of the study, having conducted the review of literature, it was planned to develop a questionnaire to study the view of the stakeholders. Although a number of techniques are available to capture the data, a self-administered questionnaire was considered to be the primary survey instrument for data collection in this investigation as it addresses the issue of reliability of information by reducing and eliminating differences in the way that the questions are asked, and how they are presented. Moreover, the questionnaires facilitated the collection of data within a short period of time which was a critical issue.

In depth method for this research is laid out in this chapter wherein Section **3.1** covers research method, objectives, and hypothesis and research design. **Section 3.2** broadly discusses study area of greater Mohali region. Participation and identification of stakeholders are elaborated in the **Section3.3** and **3.4.**The next **Section 3.5** deals with the questionnaire. **Section 3.6** elaborates the statistical techniques used. The chapter 3.0 closes with concluding remarks in **Section3.7**.

3.1 ResearchMethod

First and foremost, literature review was undertaken to study the subject. The literature review had yielded an understanding about urbanization, development, significance of master planning at regional level, stakeholders' sentiments and importance of shared vision for improved development. After finalizing the area of research the subject was further explored at all critical junctures through specific literature studies. Thus, the reports, acts, policies, byelaws, rules, regulations were explored thoroughly, thereby

setting the scene for locating a theme, identifying gaps, choosing the research problem, setting objectives, crystalizing hypotheses, lending a base for formulating questionnaire for research and to carry out the research, data collection and analysis for corroborating the hypothesis and attaining the objectives.

3.1.1 Objectives of the Study

Before the start of any research, it is essential to define the objectives of the study. The present study was undertaken with the following broad objectives:

O-1: To evolve a feasible vision of the development requirements through the Participatory Stakeholder Assessment (PSA) by identifying the factors and parameters for regional master planning (RMP) for an accelerated development.

O-2: To identify the critical success factors or gaps through case studies using regional master planning.

O-3: To finally evolve a broad strategic framework of regional development using regional master planning for achieving accelerated development.

Further on, research can be carried out for implementing the strategic policy framework arrived at, as the outcome of this study. Testing and validation of the hypothesis on a pilot basis can also be conducted as a corollary. This cannot be taken as part of the current study the reason being that the implementation and testing of such policy framework would require a time frame of 3 to 5 years for significant penetration and there after equal amount of time for testing and measurement of results. Thus, the present study is limited to evolving a broad strategic framework of regional development using regional master planning, for achieving accelerated development.

3.1.2 The Hypotheses

In research, the hypothesis is a conjectural statement about the relationship of different variables under study. In this study, as compared to many others, there is greater need to emphasize the conjectural aspect of the hypothesis. There are two reasons for this. One, the review of literature reveals that many of the earlier research has been done abroad, even if some were conducted here it was on other regions of India like Chandigarh or some different aspects. Two, many of the research objectives, outlined above, have not

been addressed by earlier research. The specific hypotheses proposed in this study are as follows:

H-1: All stakeholders strongly believe that comprehensive regional planning will ensure effective and efficient development of a region.

H-2: Participation of Stakeholders and incorporating their shared vision and expectations in planning is critical for development.

H-3: Stakeholders believe that development through comprehensive regional planning is better than development through integrating separately developed sub-regional planning areas.

3.1.3 Steps Used for Investigating the Research Problem

- Literature review was employed to identifybroad area of research, find research gaps and finalize topic of research.
- Specific literature review also helped in defining the objectives, the hypotheses and identification of the stakeholders.
- Thereafter the questionnaire was designed and which was refined through inputs from academicians and conducting pilot survey.
- The questionnaires were distributed and collected and a confirmatory tool was applied.
- The data was loaded on appropriate software and Participatory Stakeholder Assessment (PSA) was applied to analyze and interpret the data using appropriate statistical techniques.
- Factor Analysis was applied to identify the key factors or parameters of development through regional master planning (RMP) using data from Participatory Stakeholder Assessment (PSA).
- Ranking of the components were done through Weighted Average.
- Confirmatory Factor Analysis was applied.
- Optimal/feasible vision of development was derived by generating models by using the results from stakeholder analysis.
- Existing policy framework of similar regions in other states were studied.

- Published/available regional frameworks of similar regions as case studies were evaluated.
- Evolved factors of development, identified through research (PSA) were tested against case studies of similar regions, by the means of inputs from government administrators and planners. This enabled the gap analysis of strengths and weaknesses, between their region and these emerged factors. This facilitated in highlighting the relative strengths and the weaknesses.
- Then finally a broad strategic framework of development was evolved through regional master planning.

3.1.4 Research Design

After intent to undertake research is established by finalizing research topic, next important step was to conceptualizes the research design. This helped to define a road map to keep the researcher on track.

Primary and secondary data were used for the study. Primary data were collected through self-designed questionnaire and semi-structured interviews.Case studies were used for exploring and evaluating the context, to identify and explore linkages between the factors responsible for creating a conducive environment for fast track regional development and extract their relationships with parameters like town planning, land-use, external development strategy, urbanization and secondary data like economic, geographic, demographic, implementation challenges, resources and infrastructure. These components were used to:

- Study the policies and frameworks of other urban bodies/organizations;
- Identify critical success factors and gaps between the existing framework and feasible vision of stakeholders through PSA;
- Evaluate the existing framework in the government and carry out case studies, if necessary;
- Establish linkages and interrelationships between regional planning and development;
- The outcome of research was to evolve a “A Broad Strategic Framework of Development”

- The research would also indicate further areas of investigations, research and policy interventions requiring attention.
- The research design is illustrated graphically in **Figure 3.1.**

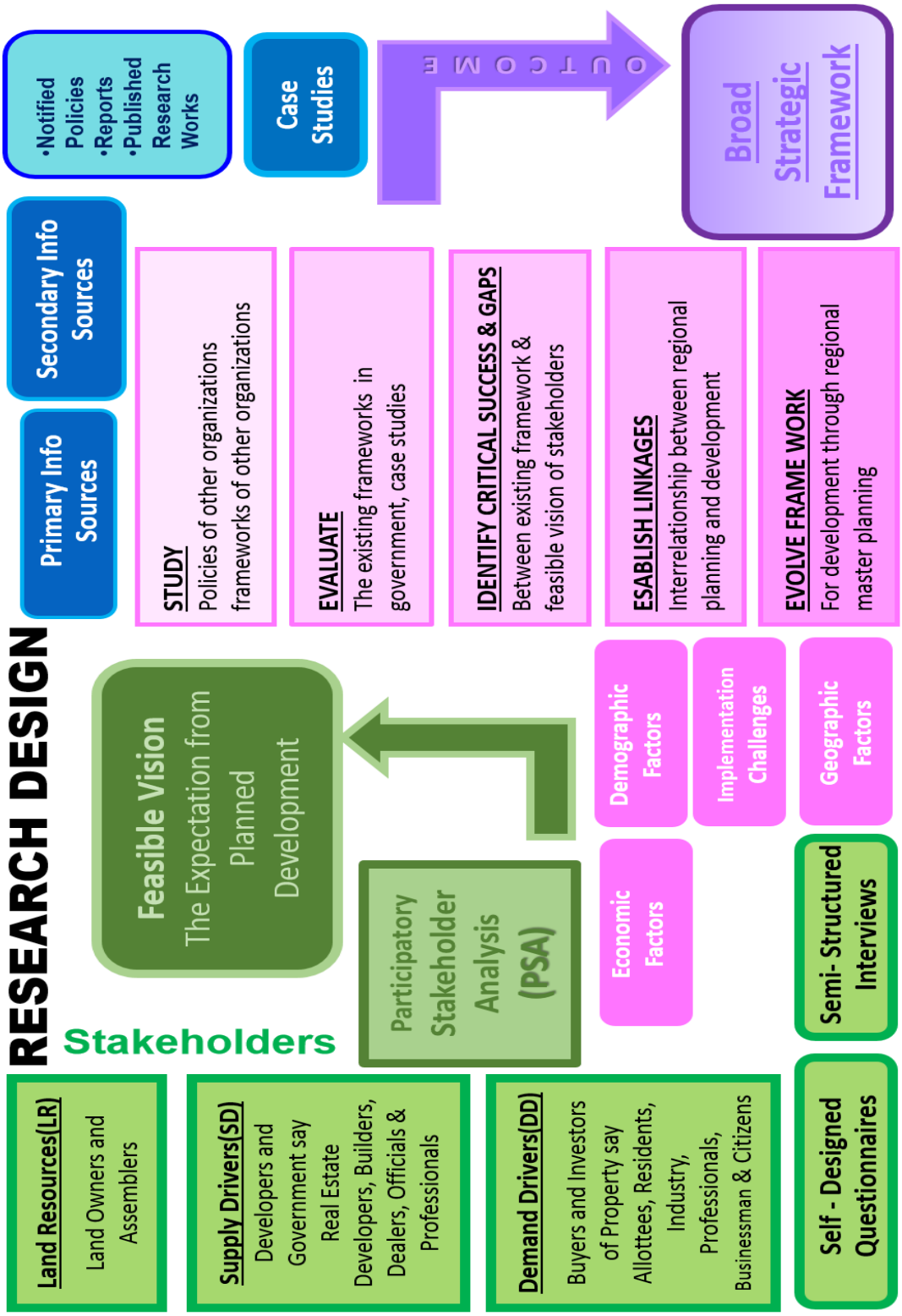


Figure 3.1: The Research Design

3.1.5 Justification and Rationale for Selecting the Research Area and Study Region

- Researcher had produced substantial work on the subject of the regional plan document during her normal course of posting.
- Greater Mohali Regional Plan 2008-2058, the study area was the first such initiative in the state of Punjab, as pilot project subsequently accepted as role model for the rest of the state.
- Punjab characterizes a rich state with an agrarian economy, had begun to undergo fast urbanization under the influence of developmental compulsions.This was a consequence of the return of peace to the region and application of economic stimulus in the form of the opening up of periphery, mega projects policies and the impetus of the government sector, private sector and the Non Resident Indians (NRI).
- A policy level initiatives "The mega project" of the state government were undertaken to consider and determine a special package of incentives as well as facilitation by way of relaxation of rules and regulations and provision of legal, institutional and financial dispensation. This was through an empowered committee headed by the Chief Minister,.
- The phenomenon of fast track urbanization, through private or government initiative, individually or in partnership, landed itself well as a potential rich research area for the study.

3.2 Study Area: Greater Mohali Region

The study focused on the greater Mohali region (GMR) of Punjab, India, as delineated in the Greater Mohali Regional Plan 2008-2058. The region comprises of "Local Planning Areas" namely, SAS Nagar, Mullanpur, Kharar, Zirakpur, Banur and Derabassi (**Figure 3.2**). Literature review in the study area was also conducted and it was found that although rich research was available on neighboring city Chandigarh, yet limited study has been made on greater Mohali region and not much data is available on this area of Punjab, which is a gap.

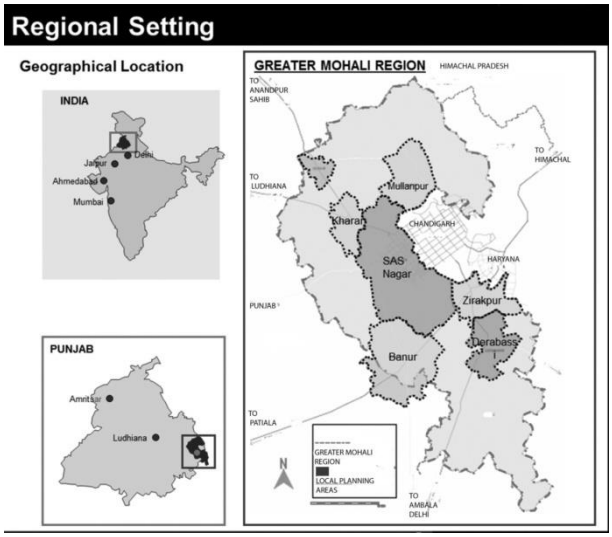


Figure 3.2: Greater Mohali Regional Settings

Source: Greater Mohali Regional Plan 2008-2058

Greater Mohali region (GMR) covers a geographical expanse of about 1190 sq. km as per Greater Mohali Regional Plan 2008-2058. It is located in the eastern part of the state of Punjab, towards Chandigarh and within the northern part of India (see **Figure 3.2)**. Four national highways intercept the region, namely, NH 22 to Ropar, NH 95 to Ludhiana, NH 22 to Shimla and NH 1 to Ambala and further to New Delhi. The railways provide a means of inter-city transport to the masses. The domestic airport at Chandigarh currently hosts flights to major parts of the country including Delhi and Mumbai was later expanded to cater to international flights and NRI travelers.

Located at the foothills of the Shivalik range, a large part of the area is designated as an environmentally sensitive zone. This includes a large number of protected and reserved forests and the north-western belt of the region is locked under the Punjab Land Preservation Act (PLPA). The region has a relatively flat topography, with moderately gentle slope towards south- western part of the area, where all the rivers and streams drain and intercept the GMR.

The soil in the region is very fertile with annual deposition of river silt. As such the land is very productive for raising multiple crops around the year. Traditionally, agriculture has been the prime economic activity in the region. However, industrial and services sector have gained importance in the past few decades in diverse sectors, like chemical, light engineering, construction materials and pharmaceutical manufacturing units whereas the service sector comprises largely of the fast growing IT, hotel and Tourism industries.

The potential of the tourism industry owes itself to its rich resource base like religious buildings, historical monuments, Mohali cricket stadium and Chandigarh city. Real estate, biotech and agro processing had been identified as the key potential as future economic drivers.

Table 3.1: Population of the Greater Mohali Region

Source: Greater Mohali Regional Plan 2008-2058.

	Number of Households(HH)	Number of persons	Number of males	Number of females
Urban Area	58,730	276,699	149,022	127,677
Rural Areas	75,225	434,511	237,400	197,111
Total for Greater Mohali	133,955	711,201	386,422	324,788

The region held population of about 0.7 million, about 60% of which is rural (see**Table 3.1)**. A large proportion of the 40% urban population is concentrated in SAS Nagar and Zirakpur which have grown along the periphery of Chandigarh, owing to development pressures from the capital city.

Table 3.2: Greater Mohali Region: Distribution of Population in 2001

Source: Greater Mohali Regional Plan 2008-2058

Urban Settlement	Nos. of HH	Nos. of Persons	% Share of Urban Population	Cumulative % Share
S.A.S. Nagar (Mohali)	28.539	123,484	44.6%	44.6%
Kliarar	8.118	42.289	15.3%	59.9%
Zirakpur	5.072	25,022	9.0%	69.0%
Kurali	4.220	23,047	8.3%	77.3%
Karoran	4,564	20,361	7.4%	84.6%
DeraBassi	3,284	15.841	5.7%	90.4%
Bhankharpnr	1,798	9,216	3.3%	93.7%
MullanpurGarib Das	1.171	6.147	2.2%	95.9%
Bhabat	1,103	5,866	2.1%	98.0%
Banur	861	5.426	2.0%	100.0%
Total:	58,730	276,699	100.0%	

.

The entire region is divided into six local planning areas, namely, SAS Nagar, Zirakpur, Kharar, Mullanpur, Banur and Derabassi. The Local Masterplans for these were notified

some years back. The formulation of these plans and the development strategy had come very late for some of the towns namely Zirakpur, Derabassi, Nayangaon and Kharar but just in time for Mullanpur. At the macro level the regional masterplan was more of an integrating strategy for the region where these towns had sprung on their own except Sahibzada Ajit Singh (SAS) Nagar, which was an extension of Chandigarh's grid system. Mullanpur is a green field development on the foothills of Shivalik ranges. Subsequent development has taken place based on these masterplans and development document.

3.3 Stakeholders'Participation and Implications

Since the study area falls in Punjab the provisions laid down in the Punjab Regional and Town planning and Development Act 1995 (amended in 2006), had a key legislative locus. Under the provision of section 59, the designated planning agency is supposed to publish a public notice for inviting public objections and suggestions. The land use maps and registers are prepared. These documentsare then made open to be inspected by the stakeholders who can file their objections and suggestions. Thereafter all the persons, who filed their objections, are allowed a reasonable opportunity of being heard. After considering the objections and public hearings, necessary modifications both, in the maps and the registers, are made and the masterplanis adopted.

Although the planning framework essentially has a provision for involving stakeholders, but in reality the participation is very poor. This is possibly due to lower awareness, less education and lack of understanding of planning processes. The workshops were seldom conducted and were conspicuous by absence. The suggestions or objections may or may not be given adequate consideration at the time of finalization of regional planning area (RPA) Document in the Punjab Regional and Town Planning and Development Board.

During the decision-making, feedback is an important aspect for evolving a feasible and acceptable regional development strategy. Some of these important stakeholders, who are likely to have expectations from regional planning process and development framework, can be from the supply side, the demand side and the supply-demand side. Recognizing the importance of stakeholders' input, Delhi Development Authority (DDA) had articulated respect for stakeholders' input in the very recent past in 2012. This new initiative is in addition to the statuary framework prescribed through the DDA Act.

3.4 Identified Groups of Stakeholders

Appropriate groups were framed to represent urban development mosaic. After validation checks 3 stakeholder groups were identified and were designated LR, SD and DD for ease:

i. *Land Resources (LR):* land owners and land assemblers.

ii. *Supply Drivers (SD) like developers and government:* builder/ developer, licensee/ colonizer, property dealer/ marketing/ sales person administrator/official of development authority land / approval agencies/ planner/ engineer/ architect/estate official.

iii. *Demand Drivers (DD) like buyers and investors of property:* citizen, government, public sector, technical-professional-engineer, doctors, architect, consultant, housewife, private-service/ self-employed/ retired-person, academician/ student/ industrialist/entrepreneur/ businessman/ other professionals.

3.5 The Questionnaire, the Tool Used

3.5.1 Details of the Questionnaire

A self-administered questionnaire was considered to be the primary survey instrument for data collection in this investigation as it facilitated the collection of data within a short period of time from the majority of respondents and this was a critical issue for this research. Three key stakeholders in development mosaic were identified. The review of selected literature and study of statuary documents of regions similar to the study area provided the initial participation for development of a draft questionnaire.

3.5.2 Reliability and Validity

The questionnaire was formulated based on literature review. The questionnaire was further refined on the basis of feedback obtained through pilot surveys.The questionnaire so developed was pre-tested and validated through face validity as it was administered to a carefully selected sample of experts. The suggestions of academicians and stakeholders were incorporated in the draft document and hence validated by them.

3.5.3 Configuration of Questionnaire

The final questionnaire consisted of a total of 28 questions. It included bothclose-ended and multiple Likert scale type questions to evaluate the responses. Information was collected from stakeholders, which included *land owners and land assemblers; developers and government; and buyers and investors of property*. **Table 3.3** gives details about the matrix for gist of questions and its objective and purpose. First 4 questions (1 to 4) were designed to collect the profile of the respondents and related to thedata identification.

Next 9 questions (9 to 14) were designed to collect the information of the respondents and related to the demographic data. 13 questions (15 to 28) were utilized to seek responses from stakeholders on different aspects of regional planning, development and urbanization. 5 point Likert scale was utilized to evaluate responses on these questions except for questions 20, 21 & 27 where respondents were asked to tick their preference.The data from some of the questions were utilized for the published research papers. Some questions were flagged to selected stakeholders, with a view to seek additional information. The respondents were asked to rate their options on five-point Likert type scale according to their choices who gave input for all questions.

Thus, data was collected from the respondents with a major focus on greater Mohali region (GMR) area, but views were also taken from Chandigarh, Panchkula and Delhi with the logic that some stakeholders may be living in Chandigarh or Panchkula, but working in GMR. On the contrary, they may be working in Chandigarh or Panchkula, but living in GMR.The study was related to the identified stakeholders. The sample, inter-alia included the urban, semi-urban and rural areas and both the males as well as females. Random stratified sampling technique was used. The sampling unit was greater Mohali region 2011, as defined in the Regional Plan 2008-2058.

Table 3.3: Matrix of Gist and Objective/ Purpose of Various Questions

s/n	Queries	Response Method	Gist
Q1	Serial No.		Data identification
Q2	Name of the person		Data identification
Q3	Address/ Contact Details		Data identification
Q4	Area represented	Please tick (□) one option.	Data identification
Q5	Age (Years) as on 1st January 2013		Demographic Data
Q6	Sex	Please tick (□) one option.	Demographic Data
Q7	Area of Residence	Please tick (□) one option.	Demographic Data
Q8	Marital Status	Please tick (□) one option.	Demographic Data
Q9	Education / Professional Qualifications	Please tick (□) one option.	Demographic Data
Q10	profession / occupation	Please tick (□) one option.	Demographic Data
Q11	Profession of the Spouse	Please tick (□) one option.	Demographic Data
Q12	Average Household Income Per Year from all sources (Rs.)	Please tick (□) one option.	Demographic Data
Q13	Land/property of family/ company owns (in Acres)?	Please tick (□) one option.	Demographic Data
Q14	Income do you get from the land per acre every year? (in rupees/ year)	Please tick (□) one option.	Demographic Data
Q15	Please rate the following design (intangible) factors of regional master planning for the successful development?	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3 significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	Design (intangible)component of development through RMP [Design (intangible) component of RMP]
Q16	Please rate the following infrastructure components of regional master planning for the successful development.	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3 significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	Infrastructure (tangible) component of development through RMP [Infrastructure (tangible) components of RMP]
Q17	Please rate the following indicators (parameters) as the measures of the development of a region?	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3 significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	Indicators (parameters) as the measures of the development of region [Indicators as measure of development]
Q18	How do you rate development through integrated regional planning as compared to local	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3	Development through integrated regional planning as compared to local town

	town planning on following factors?	significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	planning [Regional versus local development]
Q19	Rate the significance of each of the following barrier/ hindrance for effective regional urbanization and Planned Development?	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3 significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	Barriers/hindrances to regional urbanization and planned development [Barrier/ hindrance to RMP and development]
Q20	How are you presently utilizing the land?	*Please tick (✓) the option(s) given below. you can select more than one options*	Presentland utilization options [Present land utilization]
Q21	What are the reasons because of which you may part with your land for development?	*Please tick (✓) the option(s) given below. you can select more than one options*	Stakeholders'sentiment for conceding land for development [Sentimentsto Spare Land for Development]
Q22	Please rate the following methods for sale, purchase or acquisition of land for development?	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3 significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	Preferred Modes for Sale/ Purchase/ Acquisition of Land for Development [Stakeholders' willingness for land utilization]
Q23	Please rate the following challenges thrown by the Regional Planning for implementing Development?	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3 significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	Challenges in implementing RMP for development [Challenges in implementing RMP]
Q24	Rate the following locational factors for you to select a property and prefer a region for your own living or business?	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3 significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	Preference for regional location of property for living or business [Regional locational preferences]
Q25	Rate following intangible convenience for you to select a property and prefer a region for your own living or business?	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3 significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	Preference of regional conveniences of property for living or business [Regional conveniences preferences]
Q26	What purchase plan you prefer to use while purchasing/ acquiring a property?	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3 significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	Purchase plan for purchasing or acquiring property [Purchase plan options]
Q27	What is the nature and purpose of the property you may like to purchase/ acquire?	*Please tick (✓) the option(s) given below. you can select more than one options*	Prospective usage and purpose of the property [Prospective usage and purpose]
Q28	Kindly rank the advantages of incorporating stakeholders' viewpoint in the process?	Please rank each factor on a 5-point scale of (1, 2, 3, 4, 5) by ticking (□) one of the five boxes for each factor. (1 means agree, 2 relevant, 3 significant, 4 important and 5 means strongly agree to most relevant/ significant/ important)	Advantages of incorporating Stakeholders' Viewpoint in the Development Process [Stakeholders' viewpoint in the development process]

3.5.4 Details of Respondents

Questionnaires were filled by the population according to the profile under land owners and land assemblers (LR), developers and government (SD) and buyers and investors of property (DD). Questionnaires were administered to 2053 respondents and data were collected through constant and regular follow up. The filled up questionnaires were collected, 433 complete responses were received (21.1%) thereby becoming the sample size. **(Table 3.4)**

Table 3.4: Questionnaires Administered and the Responses Received

Sr. No.	Questionnaires administered	Responses Received	Percentage of Responses
1	Questionnaire distributed	2053	100%
2	Questionnaire received	433	21.1%
3	Group -1:Land owners and assemblers(LR)	52	12.01%
4	Group-2: Developers and government (SD)	104	24.00%
5	Group -3:Buyers and investorsof property (DD)	277	63.97%

3.5.5 Reliability and Validity

Reliability of the questionnaires was verified through Cronbach's Alpha (Cronbach's, 1951). Generally, as a rule of thumb, Cronbach's alpha ≥ 0.70 is considered as an acceptable reliability coefficient (Nunnaly, 1978). The developed questionnaire had been pre-tested and validated through face validation and was sent to a carefully selected sample of experts. Cronbach's alpha **(Table 3.5)** had a higher consistency for all sections with a reliability score greater than 0.70, which revealed that the internal consistency based on the inter item correlation was quite good. This helped to move along for further analysis.

Table 3.5: Reliability Statistics: Cronbach's Alpha to Establish Reliability for Each Question			
Q. No.	**Key Item**	**Cronbach's Alpha**	**Number of Items**
15	Design (intangible) factors of development through RMP	0.827	10
16	Infrastructure (tangible) factors of development through RMP	0.827	08
17	Indicators (parameters) as the measures of the development of region	0.836	10
18	Development through integrated regional planning as compared to local town planning	0.817	08
19	Barriers/hindrances to regional urbanization and planned development	0.818	08
23	Challenges in implementing RMP for development	0.829	12
28	Advantages of incorporating Stakeholders'viewpoint in the development process	0.745	06

3.6 Case Study Analysis: State Regional Development Documents Planning Aspect

Case Study Analysis: From the development documents, common factors were culled out and positioned under similar captions with a view to understand the commonality. The region wise broad parameters and salient features of the development of regions were also studied for deeper understanding.

It was observed that the format of document of Uttar Pradesh National Capita Region (UP NCR) and Haryana Northern Capital Region (HNCR) were somewhat similar. This could be because both the regions are being monitored by NCR Planning Board. Although the National Capital Territory (NCT) of Delhi and the document of National Capital Region Planning Board (NCRPB) is also monitored by NCRPB, yet these and that of Greater Mohali Area Development Authority (GMADA), all follow different formats.

It was generally observed that all these regions have democratically elected governments, under the Indian Union, they share a similar geographical and climatic conditions being located in north India. They faced similar geo-political condition in the past. After the demise of British Empire, when India gained independence, and partitioned into separate countries of India & Pakistan in 1947, the death, destruction, mass migration and the loss of family, business or property were a common regional phenomenon.

From the factor wise broad assessment it can be observed that these regions belong to states, which share comparable history and geography. Moreover they have parallel socio-cultural and economic backgrounds. This was the basic reason for selecting these for case study analysis. There are some differences, as well. NOIDA in UP NCR and Sahibzada Ajit Singh (SAS) Nagar and Mullanpur in GMADA are greenfield cities. Gurgaon and Faridabad in Haryana have originated from unplanned past. While, Delhi, Panipat, Sonipat from Haryana Ghaziabad in UP and Zirakpur and Kharar in GMADA are older cities or are hybrids of planned and unplanned development.

All regions exhibit similar concerns and share broadly comparable goals and objectives. Most of them cajoled and are bound by NCR Planning board. It has been observed that in spite of many similarities and availability of a plan document, over a period of time the development direction has gone in diverse directions. Majority of the documents had varied formats although sub-sets and sub-clauses had similar factors, but with varied degree of focus, intensity and regulations this is likely to result into diverse levels and types of development**.**Thus, it would be possible to identify relative success factors and gaps.

3.7 Statistical Techniques

3.7.1 Tools and Techniques

The research had used primary as well as secondary data.

i. Primary data were collected through a self-structured questionnaire. The questionnaire was validated and its reliability was checked through Cronbach's Alpha;

ii. Secondary data were collected though published reports, data, research papers, census data from RGI/GOI/State agencies, internet, web etc. Semi-structured interviews were also used;

iii. Data entry software was developed in Microsoft Access. MS Excel was used to feed the data entry of responses;

iv. After initial data entry, reliability test (Cronbach's Alpha) was conducted and interpreted.

3.7.2 Data Analysis

Data were analyzed with the help of SPSS (Statistical Package for Social Sciences). Statistical tools like Analysis of variance (ANOVA) and Factor Analysis were applied to the data to test the hypotheses and achieve objectives.The study used research analysis techniques like Weighted Average, ANOVA, Tukey's HSD (honest significant difference) test and feasible vision was evolved through the identified factors of regional development..

Weighted Average

There happens to be a simple scoring system that assigns a score to each individual response. This score is a weighted average of the individual's numerical values of his independent variables. On the basis of weighted averagescores, the items were rated.

Analysis of Variance

Analysis of Variance (ANOVA) was used to test for the significance of the differences among more than two sample means using ANOVA. ANOVA involves determining estimate of the population variance among the sample means and secondly estimating the population variance within the sample. Further, both the estimates are compared. If both the estimates are approximately equal in value, then the null hypothesis, i.e., sample means do not vary significantly, is accepted. These two estimates of the population variance are compared by computing their ratio, called F-statistic.

Analysis of variance (ANOVA) involves a set of techniques to study the cause and effect of one or more factors (independent variables) on a single dependent variable. In the present study, one-way ANOVA has been used. F-test under ANOVA has been conducted to understand whether the different samples have been drawn from the populations having the same mean.The study used ANOVA test for finding out whether there is a significant difference or variance in the preferences of stakeholders:

F= between-column variance/with-in column variance

Degrees of freedom for numerator = (Number of samples-1)

Degrees of freedom for denominator = (Totals sample size- Number of samples)

When samples are not drawn from the populations having the same mean, between-column variance tends to be larger than with-in column variance and the value of F-statistics tends to be large. This leads to the rejection of null hypothesis.

The present study has used ANOVA analysis to detect the significant differences or variance in the preferences of stakeholders.

Tukey's HSD

For understanding which group had dissimilarities or common opinion, post-hoc test, Tukey's HSD was applied as a follow-up to ANOVA. As significant F-test in an ANOVA with three or more conditions indicates only that the conditions differ, not which specific conditions differ. It is performed by calculating a value for the HSD (Honest Significant Difference) based on the Mean Square within from the ANOVA, the number of scores per condition (n), and a statistic called q, that is looked up in a table.

Factor Analysis

Factor Analysis is used to summarize a majority of the information in a data set in terms of relatively lesser new categories, called factors. Major use of is to group redundant variables so that smaller number of variables can be selected for further analysis. It relieves the researcher from the confusion arising through overlapping measures of the same underlying variables. Moreover, the cost of further research may be reduced by focusing efforts on fewer variables for study. Factor analysis begins with the construction of a new set of variables based on the relationships in the correlation matrix. Principal component analysis can be used to transform a set of variables into a new set of composite variables or principal components that are not correlated with each other. These linear combinations of variables, called factors, account for the variance in the data as a whole. The best combination makes up the first component and is the first factor. The second principal component is defined as the best linear set of variables for explaining the variance not accounted for by the first factor. There may be many factors, each being the best linear combination of variables not accounted by the previous factors (Cooper and Schindler, 2006). The present study used exploratory for reducing the features to smaller number of factors for using them for evolving factors of development, by identifying the factors and parameters for regional master planning (RMP) for an accelerated development.

3.8 Concluding Remarks

In the preceding review of literature **Chapter 2.0**, the research gaps were identified and they were used in the planning and development of a questionnaire that identified the factors and parameters of development through participatory Stakeholder Assessment (PSA). Choosing the right research design and method is one of the most important aspects of the research process for targeted outcomes.Three key groups of stakeholders representing the urban mosaic viz. land owners and land assemblers; developers and government; and buyers and investors of property (end users) were identified. The study focused on the greater Mohali region (GMR) of Punjab, India. In order to satisfy the objectives of research, the study used both exploratory and descriptive research design. The study used exploratory method to study the regional development planned document process. Furthermore, for analyzing the development framework of other regions and context descriptive research design was utilized.

The study used both primary and secondary sources of information and data besides conducting in-person interviews, questions or observations and experiences from public forums. The national, state and local policies, reports in the public domain and published research work were also used in the study as a secondary source of information. Case studies of regional planning were used as a tool for the identification of critical development factors, for understanding the gaps and therefore proposing a new development framework by learning from the successes and failures of prevailing initiatives. Although many techniques are available to capture the data, a self-administered questionnaire was considered to be the primary survey instrument for data collection in this investigation.

Research method applied at different phases of this study has been explained. The results of the present study are based on primary and secondary data which have been analyzed using appropriate statistical tools. Finally, a brief overview of the rationale of statistical methods used to test the hypotheses wasalso outlined. The interpretation of data and case study analysis is discussed in the next **Chapter 4.**

CHAPTER – 4

INTERPRETATIONS OF DATA AND CASE STUDY ANALYSIS

This chapter deals with discussion and analysis of the responses gathered from the respondents about their expectations from planned development, obtained through a primary survey of the selected stakeholders groups. An important task was to identity requirements and thereafter evolve a feasible vision of development at a regional scale and test it with existing framework.

For the success of any urban strategy, it is important to first understand the needs, priorities and aspirations of all stakeholders. Lack of such an understanding can result in the urbanization becoming supply-driven rather than demand-driven. The real test of the success of such projects is when the stakeholders drive these initiatives rather than being driven by government, builders, developers, financial institutions, investors, individual champions or market forces.

The present study aimed at the participative stakeholder assessment (PSA) to get the views and perceptions of stakeholders through questionnaires which were given to the land owners and land assemblers, developers and government and buyers and investors of property for understanding their perception about development and urbanization.

The questionnaires were distributed in the greater Mohali region of Punjab and neighboring areas like Chandigarh and Delhi etc. and the filled data sheets were collected back. The questionnaires were distributed to about 2053 people and the responses received back were 433 after weeding out incomplete ones, therefore taking the response rate to 21.1%.

The findings of data collected through questionnaires are described in following sections.

- **Section 4.1** Participatory Stakeholder Assessment (PSA);
- **Section 4.2** Feasible vision of regional master planning through Participatory Stakeholder Assessment (PSA);
- **Section 4.3** Case study analysis in respect of the policy framework of the selected states/ regions of northern India;
- **Section 4.4** Concluding remarks.

The data analysis worksheet can be seen at Appendix- I, the question wise analysis at Appendix- II, the questionnaire at Appendix-III, the short questionnaires headings and sub-headings for ease of reading at Appendix-IV and list of publications published in research journals at Appendix-V.

4.1 PARTICIPATORYSTAKEHOLDER ASSESSMENT (PSA)

4.1.1 Population Census: Sahibzada Ajit Singh (SAS) Nagar (Mohali), District: Census 2011 data

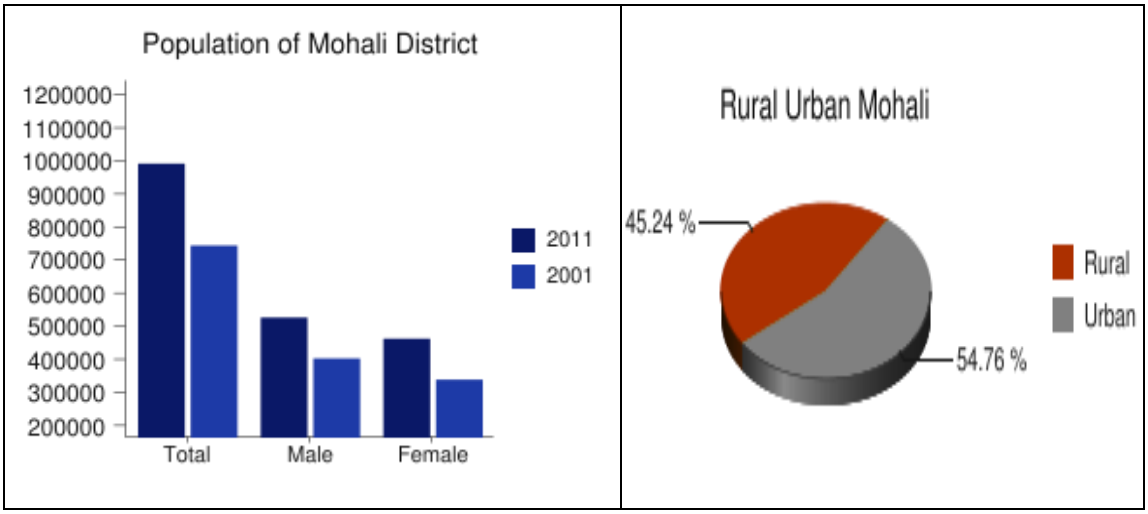


Figure 4.1: Population Census SAS Nagar (Mohali)

Source: Census of India 2011

Directorate of Census Operations, Punjab had conducted and released an official Census report (2011) for Mohali-Sahibzada Ajit Singh Nagar, a new district in the state of Punjab. According to this report, Mohali had a total population of 994,628 out of which 529,253 were males and 465,375 were females respectively. The decadal population growth rate in the district (33.2%) is higher than that of the entire state (13.9%).

SAS Nagar district is relatively more urbanized at (37.5%) than the rest of the state. This steady increase in population brings out a rapidly sustainable urbanization trend in this area. With 54.76 percent urban population as compared to 45.24 percent of rural, this region exhibited a high rural versus urban population trend in 2011 census **Figure 4.1.**

4.1.2 Demographic Profile

First fourteen questions in the questionnaire related to the basic information of the respondent like age, gender, marital status, education etc. This is given in the **Table 4.1** both in numbers and in percentages.

Table 4.1: Demographic Profile

Group	Number (n)	Percentage (%)
Gender		
Male	185	42.73
Female	248	57.27
Marital Status		
Single	196	45.26
Married	234	54.04
Widowed/ Divorced	03	0.70
Education		
Uneducated / Just Literate (can only read and write)	02	0.46
Primary school/ Middle School/ High school	69	15.94
Graduation/ Post-Graduation and other Professional Education	362	83.60
Average Household Income Per Year(Rs)		
Non Taxpayer	133	30.71
Low Taxpayer	207	47.80
High Taxpayer , Wealth Tax payee	93	21.49
Land/property family/company owns		
• 0 – 1 Acre	246	56.58
• 1 to 10 Acres	122	28.17
• 10 to 100 Acres	40	9.24
• >100 Acres	25	5.77

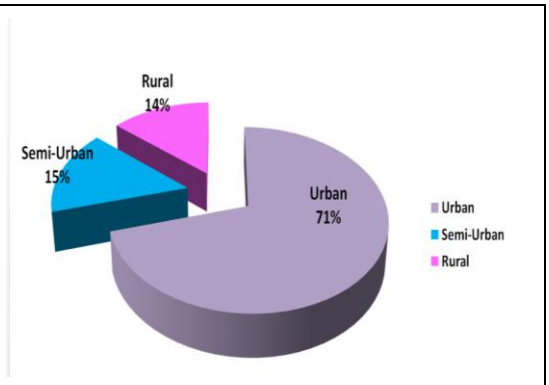
Income from the land per acre, every year		
• <Rs.10,000	197	45.50
• Rs. 10,000 to 50,000	94	21.70
• Rs. 50,000 to Rs. 2,00,000	81	18.72
• >Rs. 2,00,000	61	14.08

4.1.2.1 Area wise Distribution of Stakeholders

Demographic profile of the respondents depicted that the sample was dominated by urban population which consisted of 70.67percent of the respondents, 15.47percent respondents were from semi urban areas, while the rural segment constituted 13.86 percent is given in **Table 4.2**. Percentages were rounded off for the purpose of pie charts. Higher urban population is justified as the research area related to urban subject. Stakeholder wise break-up is given in the **Table 4.2.**The population distribution is also spread across all three resources, gave fair representation to urban, rural or semi-rural amongst all three groups.

Table 4.2: Area and Stakeholders

Area	LR	SD	DD	Total	%age
Urban	28	78	200	306	**70.67**
Semi-Urban	9	11	47	67	**15.47**
Rural	15	15	30	60	**13.86**
Total	**52**	**104**	**277**	**433**	



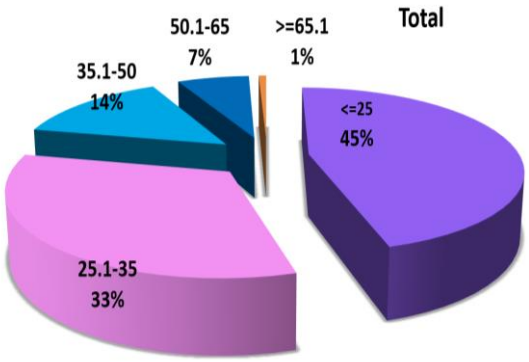
4.1.2.2 Age wise Distribution of Stakeholders

As seen from **Table 4.3** the largest segment, i.e. 45 percent of respondents were less than 25 years of age. If 25.1-35 age group was considered, then this segment comprised of 78.3 percent of the total respondents. In this age group 9/52 persons constituted LR category, 14/104 belonged to SD category and 119/277 were in DD category. 9/52 of LR, 30/104 of SD and 25/277 DD were from 35.1-50 age group. Percentages were rounded

off for the purpose of pie charts. The senior citizens' in the sample were very less. The response rate was higher from the younger age group, understandably so as the population dividend of India is positively favored towards younger generation who are likely to be the majority stakeholders in the development scenario in the immediate future.

Table 4.3: Age of Stakeholders

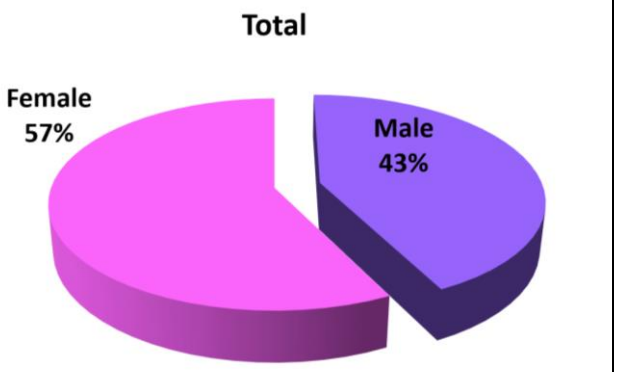
Age group	LR	SD	DD	Total	% age
<= 25	29	43	125	**197**	**45.5**
25.1-35	9	14	119	**142**	**32.8**
35.1-50	7	30	25	**62**	**14.3**
50.1-64	4	17	8	**29**	**6.7**
>64.1	3	0	0	**3**	**0.7**
Total	**52**	**104**	**277**	**433**	**100**



4.1.2.3 Gender wise Distribution of Stakeholders

Table 4.4: Gender of Stakeholders

Gender	LR	SD	DD	Total
Male	29	88	68	**185**
Female	23	16	209	**248**
Total	**52**	**104**	**277**	**433**



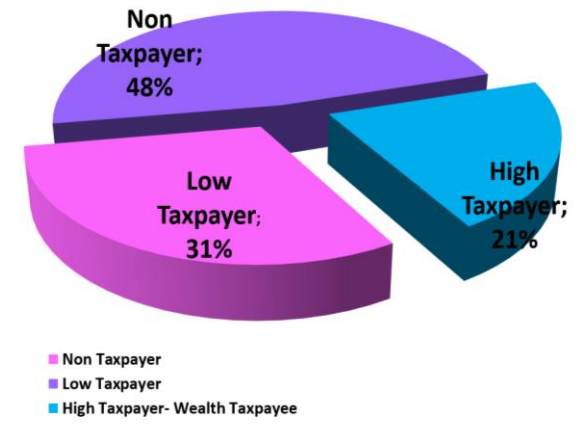
Out of the sample size of 433, 248 were females and 185 were males as shown in **Table 4.4**. Percentages were rounded off for the purpose of pie charts.The sample constituted of more women as compared to men although an effort was made to include equal percentage of both men and women. In the sample the women participation percentage was 57 percent. There was a reasonable distribution of both the genders in LR, however there were fairly more males in SD, possibly due to the fact that less number of women

could be working in government, builders developers and construction profession. Males and females had representation in all groups.

4.1.2.4 Income wise Distribution of Stakeholders

Table 4.5: Income of Stakeholders

Income	LR	SD	DD	Total
Non Taxpayer	21	22	90	**133**
Low Taxpayer	21	36	150	**207**
High Taxpayer/ Wealth Tax payee	10	46	37	**93**
Total	**52**	**104**	**277**	**433**



The results depict that majority of citizens, 300/433 were taxpayers comprising of 70 percent of the sample size. The low and high taxpayers were distributed amongst the SD and DD. As far as LR is concerned, the low and non-taxpayers dominate with 80.76 percent, understandably due to the agriculture income being non-taxable **(Table 4.5).** Percentages were rounded off for the purpose of pie charts.

83.60 percentof the respondents were graduates and post graduates, 15.94 percent were under-graduates and only two persons were uneducated or just literate respondents representing 0.46 percent of the total. The results also extracted that the larger land chunks above hundred acres were in the possession of SD i.e. government and builders. However the LR were also seen to have held on to land assets with their teeth. DD also seem to have fair ownership on land although these were medium to small chunks. *The results exhibited a Punjabis' love for land, yet seemed to have fragmented being equitably distributed amongst all stakeholders group.*

4.1.3 Outcome

Demographic profile indicated that the sample was dominated by urban populace which consisted of **70.67** percent of respondents. 15.47 percent of respondents were from semi-urban areas. The rural segment constituted 14 percent. 45 percent of respondents were less than 25 years old. If an age group upto 35 is considered, then this segment comprised of 78 percent of the respondents. Education profile represents wide spectrum. 83.6percent of the respondents were graduates. Only 15.93 percent were high school and below. The sample had 248 females and 185 males, making the women participation percentage to be 57percent. The results depict that majority of citizens (300/433) were taxpayers (69.28 percent). The low and high taxpayers were amongst SD and DD also. As far as LR is concerned, the low and non-taxpayers dominate as agriculture income is broadly non-taxable.

4.1.4 Brief on Statistical Tools Used

As explained in Chapter 3 weighted score, ANOVA, Post-Hoc Tukey Tests, Factor Analysis have been used for interpreting results. Weighted Averages helped to rank the features of development on the basis of their importance. Then ANOVA and Post-hoc tests were applied on these features to understand the difference of opinion amongst the three categories of stakeholders. Factor analysis helped to reduce these features to factors. Finally SEM was used for evolving a framework.

DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1.5 Q.15 Design (Intangible) Componentof Development through RMP

4.1.5.1 Design (Intangible) Component of RMP-Analysis and Results through Weighted Average

The results as shown through **Table 4.6 a** indicated that respondents from all three groups ranked design criteria at number one with **1799** score on weighted average inferring that they favored well-planned city with well-planned usages and disfavored haphazard development of any kind. High economic activity leading to employment opportunity

were not far behind with a score **1697** as their next preference. Equal opportunity for all age groups, equitable distribution of population and opportunities and infrastructure required to maintain lifestyle expression were also considered important for success of developed region. At one-time Safety and security was a foremost concern in this region, but it was rated low and was down at the seventh position with only **1574** score, clearly indicating that public memory is short and as peace has returned to the state the security factors were being taken for granted. *The results clearly indicated that for the design factors for a region "underlying central concept" was the most important doctrine in which economic activity leading to business environment and job opportunity were the key consideration for intangible factors of RMP*.

Table 4.6a: Q15 Design (Intangible) Component of RMP

Results through Weighted Average

S/n	Sub-Components	1	2	3	4	5	WT. Avg.	WT. Rank
15.1	Overall well planned rather than hap-hazard, growth	20	24	40	134	215	1799	1
15.2	Provision for balanced demographics	8	46	66	204	109	1659	4
15.3	Beautiful urban architecture	12	41	109	128	143	1648	6
15.4	Taking along thestakeholders	12	29	161	143	88	1565	8
15.5	Provision for high economic activity	18	31	75	153	156	1697	2
15.6	More employment opportunities	11	49	74	139	160	1687	3
15.7	Better return on Investment	38	72	65	132	126	1535	10
15.8	Incorporation lifestyle expressions	14	38	88	163	130	1656	5
15.9	Opportunities and environment for creating intellectual capital and innovation	18	100	98	125	92	1472	9
15.10	Safety and security	28	76	64	123	142	1574	7

ANOVA **(see Table 4.6b)** was performed to understand whether there exists a significance difference in the means of LR, SD and DD regarding design factor of regional master plan. *The results were significant for all except two factors, viz. (i) Taking along the stakeholders and (ii) Lifestyle expressions. This highlighted a difference in means of different stakeholders regarding design factor.*

Table 4.6b: Q15 Design (Intangible) Component of RMP

Results through ANOVA

S/n	Sub-Components		Sum of Squares	df	Mean Square	F	Sig.
15.1	Overall well planned rather than hap-hazard, growth	Between Groups	51.806	2	25.903	**23.790**	**.000*** **
		Within Groups	468.198	430	1.089		
		Total	520.005	432			
15.2	Provision for balanced demographics	Between Groups	15.504	2	7.752	**8.281**	**.000*** **
		Within Groups	402.524	430	.936		
		Total	418.028	432			
15.3	Beautiful urban architecture	Between Groups	8.102	2	4.051	**3.481**	**.032***
		Within Groups	500.369	430	1.164		
		Total	508.471	432			
15.4	Taking along thestakeholders	Between Groups	.722	2	.361	**.381**	**.684**
		Within Groups	407.639	430	.948		
		Total	408.360	432			
15.5	Provision for high economic activity	Between Groups	45.166	2	22.583	**20.742**	**.000*** **
		Within Groups	468.165	430	1.089		
		Total	513.330	432			
15.6	More employment opportunities	Between Groups	23.579	2	11.789	**10.116**	**.000*** **
		Within Groups	501.151	430	1.165		
		Total	524.730	432			
15.7	Better return on investment	Between Groups	69.653	2	34.827	**22.634**	**.000*** **
		Within Groups	661.626	430	1.539		
		Total	731.279	432			
15.8	Incorporation lifestyle expressions	Between Groups	.349	2	.174	**.156**	**.856**
		Within Groups	481.661	430	1.120		
		Total	482.009	432			
15.9	Opportunities and environment for creating intellectual capital and innovation	Between Groups	20.070	2	10.035	**7.463**	**.001*** **
		Within Groups	578.202	430	1.345		
		Total	598.273	432			
15.10	Safety and security	Between Groups	28.703	2	14.351	**9.114**	**.000*** **
		Within Groups	677.094	430	1.575		
		Total	705.797	432			

*** Significant at .1 percent levels, ** Significant at 1 percent level, * Significant at 5 percent level

4.1.5.2 Design (Intangible) Component of RMP-Analysis and Results through ANOVA and Tukey's HSD

For understanding which group had dissimilarities or common opinion, post-hoc Tukey's HSD as a follow-up to ANOVA was performed **(Table 4.6c).**Two components (i) Provision for balanced demographics and (ii) Provision for high economic activity were significant for all three stakeholders. Furthermore, (i) Overall well planned rather than haphazard, (ii) beautiful urban architecture, (iii) Return on investment, (iv) Intellectual capital and innovation, (v) Safety and security and (vi) Employment opportunities exhibited similarity or difference of opinion amongst two out of three stakeholders on the same issue.

Tukey's HSD was originally employed to trace source of variance, yet it seemed to have performed a function critical to this research. Within its larger fold, individual group dynamics seemed to come into force. This exhibited a tendency of each respondent group to form alliance with other group or groups to safeguard individual group interest. This seemed to perform a balancing function with competing demands. For example, in case of beautiful urban architecture, as a market strategy to attract customers SD attempted to attract both LR and DD for purchasing property by constructing pleasing urban picture. After acquisition of his undeveloped land, the status of LR is displaced from living or work place. The compensation for government acquired land is particularly high in the greater Mohali area, as seen from case study. Market value of land too is very exorbitant, having sold his land resources in open market where high cash component is a rule rather than an exception. Thus, LR is then likely to search for new home or business and becomes a cash rich potential customer for SD and particularly important one. *Opinion for two components showed no inconsistency, where all stakeholders had same voice for (i) lifestyle expression, which was representative of 'Simply being Punjabi' and reflected the zest and enthusiasm for living a life king size, in the greater Mohali region of Punjab. (ii) All respondents across the stakeholders come together with their whole hearted support that 'the Stakeholders' should be consulted and made an integral part and parcel of the development planning scenario.*

These findings support the proposed hypothesis ***H-2****: Participation of Stakeholders and incorporating their shared vision and expectations in planning is critical for development.*

Table 4.6c: Q15 Design (Intangible) Component of RMP
Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
15.1	Overall well planned rather than hap-hazard, growth	LR	SD	-.92308*	.17722	.000	-1.3399	-.5063
			DD	-.14302	.15770	.636	-.5139	.2279
		SD	LR	.92308*	.17722	.000	.5063	1.3399
			DD	.78006*	.12000	.000	.4978	1.0623
		DD	LR	.14302	.15770	.636	-.2279	.5139
			SD	-.78006*	.12000	.000	-1.0623	-.4978
15.2	Provision for balanced demographics	LR	SD	-.66346*	.16433	.000	-1.0499	-.2770
			DD	-.39281*	.14622	.020	-.7367	-.0489
		SD	LR	.66346*	.16433	.000	.2770	1.0499
			DD	.27065*	.11127	.041	.0090	.5323
		DD	LR	.39281*	.14622	.020	.0489	.7367
			SD	-.27065*	.11127	.041	-.5323	-.0090
15.3	Beautiful urban architecture	LR	SD	-.39423	.18321	.081	-.8251	.0367
			DD	-.42773*	.16303	.024	-.8112	-.0443
		SD	LR	.39423	.18321	.081	-.0367	.8251
			DD	-.03350	.12406	.961	-.3253	.2583
		DD	LR	.42773*	.16303	.024	.0443	.8112
			SD	.03350	.12406	.961	-.2583	.3253
15.4	Taking along thestakeholders	LR	SD	-.14423	.16537	.658	-.5331	.2447
			DD	-.09810	.14715	.783	-.4442	.2480
		SD	LR	.14423	.16537	.658	-.2447	.5331
			DD	.04613	.11197	.911	-.2172	.3095
		DD	LR	.09810	.14715	.783	-.2480	.4442
			SD	-.04613	.11197	.911	-.3095	.2172
15.5	Provision for high economic activity	LR	SD	-1.07692*	.17722	.000	-1.4937	-.6601
			DD	-.49500*	.15770	.005	-.8659	-.1241
		SD	LR	1.07692*	.17722	.000	.6601	1.4937

Table 4.6c: Q15 Design (Intangible) Component of RMP

Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
			DD	.58192*	.12000	.000	.2997	.8641
		DD	LR	.49500*	.15770	.005	.1241	.8659
			SD	-.58192*	.12000	.000	-.8641	-.2997
15.6	More employment opportunities	LR	SD	-.76923*	.18336	.000	-1.2005	-.3380
			DD	-.33755	.16316	.098	-.7213	.0462
		SD	LR	.76923*	.18336	.000	.3380	1.2005
			DD	.43169*	.12415	.002	.1397	.7237
		DD	LR	.33755	.16316	.098	-.0462	.7213
			SD	-.43169*	.12415	.002	-.7237	-.1397
15.7	Better return on investment	LR	SD	.30769	.21068	.311	-.1878	.8032
			DD	-.61039*	.18747	.003	-1.0513	-.1695
		SD	LR	-.30769	.21068	.311	-.8032	.1878
			DD	-.91808*	.14265	.000	-1.2536	-.5826
		DD	LR	.61039*	.18747	.003	.1695	1.0513
			SD	.91808*	.14265	.000	.5826	1.2536
15.8	Incorporation lifestyle expressions	LR	SD	-.08654	.17975	.880	-.5093	.3362
			DD	-.08755	.15995	.848	-.4637	.2886
		SD	LR	.08654	.17975	.880	-.3362	.5093
			DD	-.00101	.12171	1.000	-.2873	.2852
		DD	LR	.08755	.15995	.848	-.2886	.4637
			SD	.00101	.12171	1.000	-.2852	.2873
15.9	Opportunities and environment for creating intellectual capital and innovation	LR	SD	.13462	.19695	.773	-.3286	.5978
			DD	-.35164	.17525	.112	-.7638	.0605
		SD	LR	-.13462	.19695	.773	-.5978	.3286
			DD	-.48625*	.13336	.001	-.7999	-.1726
		DD	LR	.35164	.17525	.112	-.0605	.7638
			SD	.48625*	.13336	.001	.1726	.7999
15.10	Safety and security	LR	SD	.64423*	.21312	.007	.1430	1.1455

Table 4.6c: Q15 Design (Intangible) Component of RMP
Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
			DD	.05075	.18965	.961	-.3953	.4968
		SD	LR	-.64423*	.21312	.007	-1.1455	-.1430
			DD	-.59348*	.14431	.000	-.9329	-.2541
		DD	LR	-.05075	.18965	.961	-.4968	.3953
			SD	.59348*	.14431	.000	.2541	.9329
	*. The mean difference is significant at the 0.05 level.							

The study tried to further carry out factor analysis (Table 4.6 d.) with an objective of identifying factors and parameters of development through participatory stakeholder assessment (PSA).

Table 4.6d: Q15 Design (Intangible) Component of RMP
Results through Factor Analysis

Rotated Component Matrix[a]		Component	
A	**DESIGN (INTANGIBLE): DYNAMICS OF STRATEGIC ENTERPRISE**	**1**	**2**
15.7	Better return on investment – Appreciation of the land/ property value due to better planning, utilization of land resources, and faster development of the region.	0.857	
15.9	Opportunities and environment for creating intellectual capital and innovation-like knowledge city, research, development and management institutions, incubation centres to inculcate agricultural, white revolution, and animal husbandry etc.	0.787	
15.10	Safety and security- provision for more secure and safe environment	0.753	
15.4	Taking along thestakeholders, i.e. the land owners, developers and end users, in conceiving the regional planby making it a participative approach with inbuilt respect for stakeholders' aspirations	0.481	
	Eigen Value	**2.774**	
	Percentage of variance explained	**27.742**	
B	**DESIGN (INTANGIBLE) - DYNAMICS OF CREATIVE DESIGN AND ENTERPRISE**		

Table 4.6d: Q15 Design (Intangible) Component of RMP
Results through Factor Analysis

Rotated Component Matrix[a]		Component	
15.1	Overall well planned rather than hap-hazard, growth with well-placedresidential, industrial, commercial, institutional, green and transport land usage etc.		0.824
15.5	Provision for high economic activity- Business opportunities in say services sector, SME, manufacturing, industrial, IT, retail and tradeetc. (SEZ, IT Parks, Industry Park)		0.773
15.2	Provision for balanced demographics–planned population distribution after taking into consideration - density, Sex ratio, presence of all age groups i.e. children can find education, job and lifestyle opportunities, pre thought for differently-abled, poor or deprived persons to ensure equal opportunities to one and all.		0.637
15.3	Beautiful Urban Architecture – good looking, aesthetical, well landscaped with good architecture planning, street picture and city scape.		0.562
15.8	Incorporation lifestyle expressions – like hotels, clubs, Pubs, Multiplexes, Shopping Malls, multi-gyms, green space, amusement parks, high-rise buildings, outlets for food, beverage, shopping and entertainment. etc.		0.5
15.6	More employment opportunities and job creation.		0.497
	Eigen Value	**2.703**	
	Percentage of variance explained	**27.031**	
	Cumulative Percentage of variance explained	**54.773**	
	Extraction Method: Principal Component Analysis. , Rotation Method: Varimax with Kaiser Normalization., a. Rotation converged in 3 iterations.		

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.828
Bartlett's Test of Sphericity	Approx. Chi-Square	1565.134
	df	45
	Sig.	.000

4.1.5.3 Design (Intangible) Component of RMP-Analysis and Results through Factor Analysis

Factor analysis helped in classifying ten items into two significant factors for development through RMP, explaining 54.773% of the variance as depicted through **Table 4.6d.**

- *Dynamics of strategic enterprise*: The first factor drew up four items with Eigen value of 2.774 explaining 27.742%of variance. The items in the factor are:

- Return on investment (0.857);
- Intellectual capital and innovation (0.787);
- Safety and security (0.753); and
- Taking along the stakeholders (0.481).

The outcome of analysis of Design Feature of RMP, brought out that stakeholders, as first preference *favored return on investment* with a focus on planning, utilization of land as resources immediately followed by creation of opportunity and innovation in the knowledge economy. *Thereby enterprise, rather than land-use which is prevalent presently, had come forth as the most desired strategy, as an intangible factor of design.* At one time, safety and security were the foremost concern, for taking decision for selecting location for business spaces, educational institutes or living. During militancy people had migrated from affected areas to safe places like from rural to urban or even outside the state. *This factor was observed to have been accorded rather lower position, clearly indicating that public memory is short and as Punjab became peaceful, after decades long strife, factors relating to security environment were seen to have taken a backseat.*

i. *Dynamics of creative design enterprise*: The second factor has six items with Eigen value of 2.703, explaining 27.031% of variance. Here, the respondents seemed to have segregated the design factors by bunching them under creative design enterprise. The items included in this factor are:

   - Planned development with dynamic mix of residential, industrial, commercial, institutional, green so that transport is convenient (0.824),
   - Economic enterprise by opportunities in SEZ, IT parks, industry park and in a concoction of business in services sector, SME, manufacturing, industrial, IT, retail and trade (0.773);
   - Balanced distribution of population, development and economic activity (0.637);
   - Emphasis on integrated urban design, architecture and landscaped leading to beautiful street picture and cityscapes(0.562);
   - Lifestyle expressions through hotels, clubs, pubs, multiplexes, shopping malls, multi-gyms, green space, amusement parks, high-rise buildings, outlets for food, beverage, shopping and entertainment. etc. (0.500); and

- Employment opportunities and job creation (0.497).

Preference for well-planned cities with well-placed usages and economic enterprise clearly specified that overall underlying core concept in which *"economic activity materializing into business opportunity"* was the most important criterion for the stakeholders.The first preference was accorded *to "dynamic mixed-land use and equitable environment and emerge as the key considerations for design."This preference was in contrast to* the prevalent method of land use planning and land parcelization, as could be also be understood from region case study similar to the study areas. This clearly indicated that the established method of design seemed outdated to the stakeholders and does not seem to serve adequate purpose. *Thus "The existing framework of regional development seemed to be losing its relevance in the present scenario and becoming outdated*".

The findings of this part of the dissertation support the proposed hypothesis that:

H-1: *All the stakeholders strongly believe that the comprehensive regional planning will ensure the effective and efficient development of a region. 1st item of factor 2 emerged from data analysis of stakeholders' input which selected advantage through planned development with dynamic mix of residential, industrial, commercial, institutional, etc. at top priority.*

From design features, the study moved to analysing the infrastructure components of RMP, presented in Section 4.1.6.

4.1.6 Q16 Infrastructure (Tangible) Factors of Development through RMP

4.1.6.1 Infrastructure (Tangible) Components of RMP-Analysis and Results through Weighted Average

The results in **Table 4.7a** indicated that respondents from all the three groups considered planning and provision for infrastructure as the most critical component, of RMP, ranking this at number one with a score of **1780** on weighted average. This was closely followed by transport infrastructure with **1757** score and utility services like water, sewage, rainwater drainage, power, communication etc. with **1710,** as next ensuing preferences. This indicated that the key components for regional development were provision for roads, transport with public mobility through connectivity and utility services. Next in line at **1698** stood the social infrastructure, viz. socio-cultural-health-sports, educational

institutes like school and professional institutes for higher education. Affordable housing was placed way below the line. This was seen as a contemplative issue that the region had already made provision for adequate housing and results could indicate towards a likely surplus. Acquisition of additional assets, after securing the first property, gave a clear indication of purchase as an investment decision rather than actual requirement. Arguably as the cities expand into regions, the concerns for transport with public mobility and physical infrastructure scored way above housing and social infrastructure. The research finding indicated that this gap exists in realityand is an important factor for intangible infrastructure, not only in greater Mohali but in India today.

The findings of this part of the dissertation support the proposed hypothesis that:

H-1: *All the stakeholders strongly believe that the comprehensive regional planning will ensure the effective and efficient development of a region. At rank one, all three groups consider planning and provision for infrastructure as most critical component of RMP Infrastructure for successful development.*

Table 4.7a: Q16 Infrastructure (Tangible) Components of RMP
Results through Weighted Average

S/n	Sub-Components	1	2	3	4	5	WT. AVG..	WT.. Rank
16.1	Well designed and professionally constructed Infrastructure with modern technology	18	28	41	147	199	**1780**	**1**
16.2.	Transport infrastructure	12	34	66	126	195	**1757**	**2**
16.3	Trunk line for services	7	35	75	172	144	**1710**	**3**
16.4	Socio- cultural-health- sports Infrastructure and public conveniences	12	26	71	199	125	**1698**	**4**
16.5	Educational infrastructure	12	30	83	166	142	**1695**	5
16.6	Affordable housing for all	13	85	98	106	131	**1556**	8
16.7	Environment and sustainability	13	41	117	151	111	**1605**	6
16.8	Large regional markets	6	55	107	156	109	**1606**	7
							13407	

4.1.6.2 Infrastructure (Tangible) Components of RMP: Analysis and Results through ANOVA and Tukey's HSD

ANOVA **(Table 4.7b)** results highlight that F-values were significant for five out of eight infrastructure components viz. (i) Well designed and professionally constructed infrastructure with modern technology, (ii) Transport infrastructure , (iii) Trunk lines for utility services, (iv) Socio- cultural-health- sports infrastructure and public conveniences and (v) Affordable housing for all The results highlighted coherence in the perception of different stakeholders for the remaining three components.

Table 4.7b: Q16 Infrastructure (Tangible) Components of RMP
Results through ANOVA

S/n	Sub-Components		Sum of Squares	df	Mean Square	F	Sig.
16.1	Well designed and professionally constructed Infrastructure with modern technology	Between Groups	45.385	2	22.693	21.083	**.000*** **
		Within Groups	462.841	430	1.076		
		Total	508.226	432			
16.2	Transport infrastructure	Between Groups	29.793	2	14.897	13.528	**.000*** **
		Within Groups	473.523	430	1.101		
		Total	503.316	432			
16.3	Trunk lines for utility services	Between Groups	26.034	2	13.017	14.169	**.000*** **
		Within Groups	395.042	430	.919		
		Total	421.076	432			
16.4	Socio- cultural-health- sports infrastructure and public conveniences	Between Groups	9.204	2	4.602	4.991	**.007** **
		Within Groups	396.432	430	.922		
		Total	405.635	432			
16.5	Educational infrastructure	Between Groups	4.877	2	2.438	2.355	**.096**
		Within Groups	445.294	430	1.036		
		Total	450.171	432			
16.6	Affordable housing for all	Between Groups	14.684	2	7.342	5.249	**.006** **
		Within Groups	601.395	430	1.399		
		Total	616.079	432			
16.7	Environment and sustainability	Between Groups	4.046	2	2.023	1.855	**.158**
		Within Groups	468.869	430	1.090		

Table 4.7b: Q16 Infrastructure (Tangible) Components of RMP
Results through ANOVA

S/n	Sub-Components		Sum of Squares	df	Mean Square	F	Sig.
		Total	472.915	432			
16.8	Large regional markets	BetweenGroups	5.992	2	2.996	2.882	**.057**
		Within Groups	446.923	430	1.039		
		Total	452.915	432			

*** Significant at .1 percent levels, ** Significant at 1 percent level, * Significant at 5 percent level

Tukey's HSD **(Table 4.7c)** highlighted that no factor exhibited significant variance amongst three groups, bringing out that all stakeholder in one voice strongly feel that infrastructure components are the most important component of development and are a basic necessity for all stakeholders. (i) Educational infrastructure and (ii) Environment and sustainability were not significant so LR, SD and DD seemed to have harmonious preferences. Furthermore, (i) Well designed and professionally constructed infrastructure with modern technology, (ii) Transport infrastructure, (iii) Trunk lines for utility services and (iv) Socio-cultural-health-sports infrastructure and public conveniences; exhibited similarity or difference of opinion amongst two out of three stakeholders on the same issue.

The balancing and self-correcting tendency of random society, living over macro areas against narrow selfish gains, or attempting equilibrium on competing requirements through self-rejection or self-acceptance, emerges as the beauty of PSA centered consensus. In the first component of infrastructure components of RMP, LR and DD are seen to be uniting and aligning against the SD for provision of well-designed and professionally constructed infrastructure with modern technology. This finding can be attributed to the fact that planning and provision for infrastructure precedes the development. Better design, modern technologies and professional construction are detrimental to profit motives of SD, being investment heavy. Such factors can also compromise pre-launch of projects for prior recovery of costs by builders and developers hence and are unsuitable for them but suitable to LR and DD hence their joint stance against SD.

Table 4.7c:Q16 Infrastructure (Tangible) Components of RMP

Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
16.1	Well designed and professionally constructed infrastructure with modern technology	LR	SD	-.89423*	.17621	.000	-1.3086	-.4798
			DD	-.17544	.15680	.503	-.5442	.1933
		SD	LR	.89423*	.17621	.000	.4798	1.3086
			DD	.71879*	.11931	.000	.4382	.9994
		DD	LR	.17544	.15680	.503	-.1933	.5442
			SD	-.71879*	.11931	.000	-.9994	-.4382
16.2	Transport infrastructure	LR	SD	-.62500*	.17823	.001	-1.0442	-.2058
			DD	-.01312	.15860	.996	-.3861	.3599
		SD	LR	.62500*	.17823	.001	.2058	1.0442
			DD	.61188*	.12068	.000	.3281	.8957
		DD	LR	.01312	.15860	.996	-.3599	.3861
			SD	-.61188*	.12068	.000	-.8957	-.3281
16.3	Trunk lines for utility services	LR	SD	-.32692	.16279	.111	-.7098	.0559
			DD	.25507	.14486	.184	-.0856	.5958
		SD	LR	.32692	.16279	.111	-.0559	.7098
			DD	.58199*	.11023	.000	.3227	.8412
		DD	LR	-.25507	.14486	.184	-.5958	.0856
			SD	-.58199*	.11023	.000	-.8412	-.3227
16.4	Socio-cultural-health- sports infrastructure and public conveniences	LR	SD	-.50962*	.16308	.005	-.8932	-.1261
			DD	-.38455*	.14511	.023	-.7258	-.0433
		SD	LR	.50962*	.16308	.005	.1261	.8932
			DD	.12507	.11042	.494	-.1346	.3848
		DD	LR	.38455*	.14511	.023	.0433	.7258
			SD	-.12507	.11042	.494	-.3848	.1346
16.5	Educational infrastructure	LR	SD	-.29808	.17284	.197	-.7046	.1084
			DD	-.33289	.15380	.079	-.6946	.0288
		SD	LR	.29808	.17284	.197	-.1084	.7046

Table 4.7c:Q16 Infrastructure (Tangible) Components of RMP
Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
			DD	-.03482	.11703	.952	-.3101	.2404
		DD	LR	.33289	.15380	.079	-.0288	.6946
			SD	.03482	.11703	.952	-.2404	.3101
16.6	Affordable housing for all	LR	SD	.52885*	.20086	.024	.0565	1.0012
			DD	.12899	.17873	.751	-.2914	.5493
		SD	LR	-.52885*	.20086	.024	-1.0012	-.0565
			DD	-.39985*	.13600	.010	-.7197	-.0800
		DD	LR	-.12899	.17873	.751	-.5493	.2914
			SD	.39985*	.13600	.010	.0800	.7197
16.7	Environment and sustainability	LR	SD	-.03846	.17735	.974	-.4556	.3786
			DD	-.22570	.15781	.326	-.5969	.1455
		SD	LR	.03846	.17735	.974	-.3786	.4556
			DD	-.18724	.12009	.265	-.4697	.0952
		DD	LR	.22570	.15781	.326	-.1455	.5969
			SD	.18724	.12009	.265	-.0952	.4697
16.8	Large regional markets	LR	SD	.18269	.17315	.543	-.2245	.5899
			DD	-.09831	.15408	.799	-.4607	.2641
		SD	LR	-.18269	.17315	.543	-.5899	.2245
			DD	-.28100*	.11724	.045	-.5567	-.0053
		DD	LR	.09831	.15408	.799	-.2641	.4607
			SD	.28100*	.11724	.045	.0053	.5567
	*. The mean difference is significant at the 0.05 level.							

The next step was to employ factor analysis on Infrastructure (tangible) components of RMP. The results of factor analysis are shown through Table 4.7 d.

Table 4.7d:Q16 Infrastructure (Tangible) Components of RMP

Results through Factor Analysis

Rotated Component Matrix[a]			Component	
A	**INFRASTRUCTURE(TANGIBLE): SMART UTILITY SERVICES**		**1**	**2**
16.1	Planning/ Provision for Infrastructure- infrastructure precedes the development after better design, modern technologies and professional construction.		0.809	
16.2	Planning/ Provision of Transport Infrastructure - Highways, expressway, roads, railways, container services, domestic and international airport facility and connectivity with public transport, buses, taxies, rickshaws, metro etc. .		0.788	
16.3	Planning/ Provision of trunk line for Services-Power grids, electricity supply, telephone, cable, internet, water supply, rain drainage, sewerage systems, sewage treatment, solid waste management etc.		0.761	
16.4	Planning/ Provision for Socio- cultural-health and sports Infrastructure - Theaters, art galleries, dispensaries, hospitals, sports facilities, community centres, crèches, night shelters and public conveniences etc.		0.663	
	Eigen Value		**2.504**	
	Percentage of variance explained		**31.294**	
B	**INFRASTRUCTURE(TANGIBLE): BASIC HUMAN FACILITY**			
16.8	Provision for largeregional markets –Central business districts, commercial shopping, wholesale trades, bulk material markets, vegetable, grain, fruit markets, farmers mandis and hawkers etc.			0.801
16.7	Care for environment and sustainability- Better preservation of the local ecological environment, i.e. natural drainage system, forests, lakes, ponds, flora and fauna through the proper planning of the larger areas of surrounding towns.			0.773
16.6	Better provision for affordable housing for all categories			0.703
16.5	Planning/ Provision for school / higher/ professional education opportunities- universities, engineering/ medical/ law/ MBA institutions etc. Also including polytechnics, vocational training, industrial training institutions, skill development centers etc.			0.697
	Eigen Value		**2.471**	
	Percentage of variance explained		**30.882**	
	Cumulative percentage of variance explained		**62.175**	
	Extraction Method: Principal Component Analysis. , Rotation Method: Varimax with Kaiser Normalization. A. Rotation converged in 3 iterations.			
	KMO and Bartlett's Test			
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.846	
	Bartlett's Test of Sphericity	Approx. Chi-Square	1134.107	
		df	28	
		Sig.	.000	

4.1.6.3 Infrastructure (Tangible) Components of RMP-Analysis and Results through Factor Analysis

Two significant factors emerged from rotated component analysis explaining 62.175 % of the variance (**Table 4.7d).**

i. *Tangible infrastructure: smart utility services*: The first factor of development through regional planning drew up four items with Eigen value of 2.504 accounting 31.294% of variation.This factor included the following components:

   - Well designed and professionally constructed infrastructure with modern technology (0.809);
   - Transport infrastructure (0.788);
   - Trunk lines for utility services (0.761); and
   - Socio-cultural-health- sports infrastructure and public conveniences, which seemed to relate more to Basic human facilities, had lower factor loading of 0.663.

The respondents were clearly extracting components of tangible infrastructure and collating them under utility services with better designs, smarter technologies professional construction. *Not surprisingly, in stakeholders' perception, once again the key component forRMP were state of art infrastructure, including smart utility services, roads and transport infrastructure with public mobility*.This was followed by Socio-cultural-health- sports infrastructure and public conveniences.

With high factor loading, the outcome indicated a shift in respondents' perception that sports, health, social infrastructure, theaters, art galleries, crèches, night shelters and public conveniences should be created at initial phases of region-city development together with other basic services and not deferred. *This opinion is different from the prevalent implementation frameworks of the state governments, where such facilities are constructed last in the timeline of city development*. Concern for transport and essential infrastructure, where a large gap exists in reality scored above the housing and social infrastructure.

The findings as represented in this section support the proposed hypothesis that:

H-1: *All the stakeholders strongly believe that the comprehensive regional planning will ensure the effective and efficient development of a region. 1st item of Factor 3 on well designed and professionally constructed Infrastructure.*

ii. *Tangible infrastructure: basic human facility:* The second factor of development through RMP drew up four items with Eigen value of 2.471 and explaining variance of 30.882 %. This factor included the following components:

- Large regional markets (0.801);
- Environment and sustainability, (0.773);
- Affordable housing for all (0.703); and
- Educational infrastructure. (0.697).

The results also exhibit that the days of well-off have arrived in India, and higher benchmark were being desired for what was now being interpreted as minimum basic facilities like central business district (CBD), malls, farmers mandis, whole sale trade, bulk material markets, vegetable, grain, fruit markets, and hawkers.

Basic human instinct to preserve the environment, sustainability and ecological factors like natural drainage system, forests, lakes, ponds, flora and fauna, were accorded high priority as planning components of regional development by the stakeholders. This was contradictory to the wasteful practices of the past. Stakeholders, through the results expressed their desire for these human facilities via regional (rather than city) blue print of macro development for better integration of areas outside of cities where eco sensitive regions actually exist. *This is also evident from case study of Greater Mohali study area*.

An unexpected finding was that affordable housing and educational infrastructure had relatively reduced factor loadings. The results indicated that in stakeholders' perception adequate quantum of housing and educational infrastructure was already available presently. This opinion can find reflection in uninhabited dwelling units and vacant seats in institutes, which indicate a likely surplus obtained out of the policy framework of the state government.

It indicated that many stakeholders already owning their first property were now in the process of purchasing a second or third asset as an investment option, than as an actual user requirement. These products were then available to others stakeholders on hire or

lease. It could also hint at a less buoyancy in the real estate market or depression or quasi recession in the property market with in that timeframe of data collection.

Entrepreneurs were approaching educational institutes more as business opportunities rather than a service to the society. Supply was found to exceed demand which was contrary to the deficit existing a decade back, so were a little low in the respondents' wish list and accorded a rather lower priority. *On these grounds, the stakeholder wish list was seen to have expanded to commercial and lifestyle outlets and concern for sensitive issues like environment.*

The findings of this section support the proposed hypothesis that:

H-1: All the stakeholders strongly believe that the comprehensive regional planning will ensure the effective and efficient development of a region. 1st item of Factor 4 on central business districts, commercial shopping, wholesale trades, bulk material markets, vegetable, grain, fruit markets, farmers mandis.

The next section 4.1.7 presents analysis on Indicators as measure of development.

4.1.7 Q17 Indicators (Parameters) as the Measures of the Development of Region

4.1.7.1 Indicators as Measure of Development -Analysis and Results through Weighted Average

The results in **Table 4.8a i**ndicated that respondents from all three groups rated infrastructure index at number one with **1785** score on weighted average inferring that they accorded first rank to infrastructure in the region like roads, water, sewage, drainage, gas pipelines, fibre optic backbone per unit area etc. Ease of doing business is not far behind with**1655** score. *The infrastructure and business environment indices highlighted that these two are key indices for development at macro scale*. Next in line with **1628** score was high per capita income in the region, justifying that individual economic factors are less important. Ranked at four with 1606**,** were literacy rate, quality of education and skill development. High level of unemployment could be attributed to apathy of stakeholders towards this important component. This mind set is required to be transformed.

The findings of this part of the dissertation support the proposed hypothesis that:

H-1: *All the stakeholders strongly believe that the comprehensive regional planning will ensure the effective and efficient development of a region. Infrastructure index was rated at number one.*

Table 4.8a: Q17 Indicators as Measure of Development
Results through Weighted Average

S/n	Sub-Components	1	2	3	4	5	WT. Avg.	WT. Rank
17.1	Infrastructure Index	15	38	37	132	211	1785	1
17.2	Average commute time	18	77	81	128	129	1572	7
17.3	Ease of doing business	13	42	98	136	144	1655	2
17.4	Average Per Capita income	9	42	129	117	136	1628	3
17.5	Average Cost of energy per head	8	42	115	173	95	1604	5
17.6	Average Availability/ consumption of other resources	37	38	58	172	97	1460	8
17.7	Average Per Capita expenditure/ Average Cost of living	12	52	109	150	110	1593	6
17.8	Literacy rate, quality of education and skill development	17	51	111	116	138	1606	4
17.9	Jobs in secondary and tertiary sectors	21	52	76	169	115	1604	5
17.10	Hospital beds/ population	25	94	98	127	89	1460	9
							15967	

4.1.7.2 Indicators as Measure of Development-Results through ANOVA and Tukey's HSD

ANOVA **(Table 4.8b)** results are significant for eight out of ten factors. Attributes like (i) Average per capita expenditure/ average cost of living and (ii) Literacy rate, quality of education and skill development were not significant. *This highlighted that there is a significant difference in the mean score of three groups of stakeholders for these components.*

Table 4.8 b: Q17 Indicators as Measure of Development

Results through ANOVA

S/n	Sub-Components		Sum of Squares	df	Mean Square	F	Sig.
17.1	Infrastructure Index	Between Groups	48.226	2	24.113	21.611	**.000*** **
		Within Groups	479.788	430	1.116		
		Total	528.014	432			
17.2	Averagecommute time	Between Groups	46.362	2	23.181	17.306	**.000*** **
		Within Groups	575.985	430	1.339		
		Total	622.346	432			
17.3	Ease of doing business	Between Groups	55.554	2	27.777	26.130	**.000*** **
		Within Groups	457.107	430	1.063		
		Total	512.661	432			
17.4	Average Per Capita income	Between Groups	14.159	2	7.080	6.398	**.002** **
		Within Groups	475.813	430	1.107		
		Total	489.972	432			
17.5	Average cost of energy per head	Between Groups	12.848	2	6.424	6.918	**.001*** **
		Within Groups	399.314	430	.929		
		Total	412.162	432			
17.6	Average availability/ consumption of resources	Between Groups	62.750	2	31.375	22.512	**.000*** **
		Within Groups	599.291	430	1.394		
		Total	662.042	432			
17.7	Average per capita expenditure/ average cost of living	Between Groups	.740	2	.370	.324	**.723**
		Within Groups	490.914	430	1.142		
		Total	491.654	432			
17.8	Literacy rate, quality of education and skill development	Between Groups	3.396	2	1.698	1.287	**.277**
		Within Groups	567.094	430	1.319		
		Total	570.490	432			
17.9	Jobs in secondary and tertiary sectors	Between Groups	20.521	2	10.260	8.312	**.000*** **
		Within Groups	530.814	430	1.234		
		Total	551.335	432			
17.10	Hospital beds/ population	Between Groups	20.226	2	10.113	7.282	**.001*** **
		Within Groups	597.165	430	1.389		

Table 4.8 b: Q17 Indicators as Measure of Development
Results through ANOVA

S/n	Sub-Components		Sum of Squares	df	Mean Square	F	Sig.
		Total	617.390	432			

*** Significant at .1 percent levels, ** Significant at 1 percent level, * Significant at 5 percent level

The post Hoc Tukey's HSD (Table 4.8 c) highlighted that there was no component that is completely significant. However, (i) Average per capita expenditure, average cost of living and (ii) Literacy rate, quality of education, skill development were not significant, so the LR, SD and DD seem to have harmonious preferences. (i) Infrastructure index, (ii) Average commute time, (iii) Ease of doing business, (iv) Average per capita income, (v) Average cost of energy per head, (vi) Average availability/ consumption of resources, (vii) Hospital beds/ population and (viii) Jobs in secondary and tertiary sectors, all exhibited similarity or difference of opinion amongst two out of three stakeholders on the same issue.

Tukey's HSD was originally employed to trace source of variance, yet it seemed to perform a function critical to this research. Within its larger fold, individual group dynamics seemed to come into play. *This exhibited a tendency of each respondent group to form alliance with other group to safeguard individual group interest. This seemed to perform a balancing function with competing demands*. For example, LR and DD had similar opinion about infrastructure index versus the opinion of SD. Both seemed to unite against the profit motive of builders, developers and the government, who wished to purchase land at low cost and sell the property at a maximum profit, while the land owners and land assemblers wanted the value for their land and the buyer and investor of property wanted to protect affordability of real estate. In case of ease of doing business SD and DD had similar view. This was in contrast to LR stance, who may not inclined towards entrepreneurship and consequent regional transformation from primary agrarian to tertiary economy.

Table 4.8c: Q17 Indicators as Measure of Development

Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
17.1	Infrastructure Index	LR	SD	-.92308*	.17940	.000	-1.3450	-.5011
			DD	-.18266	.15964	.487	-.5581	.1928
		SD	LR	.92308*	.17940	.000	.5011	1.3450
			DD	.74042*	.12148	.000	.4547	1.0261
		DD	LR	.18266	.15964	.487	-.1928	.5581
			SD	-.74042*	.12148	.000	-1.0261	-.4547
17.2	Average commute time	LR	SD	.33654	.19657	.202	-.1258	.7988
			DD	-.42773*	.17492	.039	-.8391	-.0164
		SD	LR	-.33654	.19657	.202	-.7988	.1258
			DD	-.76427*	.13310	.000	-1.0773	-.4512
		DD	LR	.42773*	.17492	.039	.0164	.8391
			SD	.76427*	.13310	.000	.4512	1.0773
17.3	Ease of doing business	LR	SD	-.84615*	.17511	.000	-1.2580	-.4343
			DD	-.00916	.15582	.998	-.3756	.3573
		SD	LR	.84615*	.17511	.000	.4343	1.2580
			DD	.83699*	.11857	.000	.5581	1.1159
		DD	LR	.00916	.15582	.998	-.3573	.3756
			SD	-.83699*	.11857	.000	-1.1159	-.5581
17.4	Average per capita income	LR	SD	.29808	.17866	.219	-.1221	.7183
			DD	-.13448	.15898	.675	-.5084	.2394
		SD	LR	-.29808	.17866	.219	-.7183	.1221
			DD	-.43255*	.12097	.001	-.7171	-.1480
		DD	LR	.13448	.15898	.675	-.2394	.5084
			SD	.43255*	.12097	.001	.1480	.7171
17.5	Average cost of energy per head	LR	SD	-.26923	.16367	.228	-.6542	.1157
			DD	.14232	.14564	.592	-.2002	.4848
		SD	LR	.26923	.16367	.228	-.1157	.6542

Table 4.8c: Q17 Indicators as Measure of Development

Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
			DD	.41155*	.11082	.001	.1509	.6722
		DD	LR	-.14232	.14564	.592	-.4848	.2002
			SD	-.41155*	.11082	.001	-.6722	-.1509
17.6	Average availability/ consumption of resources	LR	SD	.82692*	.20051	.000	.3554	1.2985
			DD	-.07422	.17842	.909	-.4938	.3454
		SD	LR	-.82692*	.20051	.000	-1.2985	-.3554
			DD	-.90114*	.13577	.000	-1.2204	-.5818
		DD	LR	.07422	.17842	.909	-.3454	.4938
			SD	.90114*	.13577	.000	.5818	1.2204
17.7	Average per capita expenditure/ average cost of living	LR	SD	.14423	.18147	.706	-.2826	.5710
			DD	.10976	.16148	.775	-.2700	.4895
		SD	LR	-.14423	.18147	.706	-.5710	.2826
			DD	-.03447	.12288	.958	-.3235	.2545
		DD	LR	-.10976	.16148	.775	-.4895	.2700
			SD	.03447	.12288	.958	-.2545	.3235
17.8	Literacy rate, quality of education and skill development	LR	SD	.10577	.19505	.850	-.3530	.5645
			DD	-.10310	.17356	.823	-.5113	.3051
		SD	LR	-.10577	.19505	.850	-.5645	.3530
			DD	-.20887	.13207	.255	-.5195	.1017
		DD	LR	.10310	.17356	.823	-.3051	.5113
			SD	.20887	.13207	.255	-.1017	.5195
17.9	Jobs in secondary and tertiary sectors	LR	SD	-.50000*	.18870	.023	-.9438	-.0562
			DD	.01132	.16792	.997	-.3836	.4062
		SD	LR	.50000*	.18870	.023	.0562	.9438
			DD	.51132*	.12777	.000	.2108	.8118
		DD	LR	-.01132	.16792	.997	-.4062	.3836
			SD	-.51132*	.12777	.000	-.8118	-.2108

Table 4.8c: Q17 Indicators as Measure of Development
Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
17.10	Hospital beds/ population	LR	SD	.29808	.20015	.297	-.1726	.7688
			DD	-.21577	.17810	.447	-.6346	.2031
		SD	LR	-.29808	.20015	.297	-.7688	.1726
			DD	-.51385*	.13552	.001	-.8326	-.1951
		DD	LR	.21577	.17810	.447	-.2031	.6346
			SD	.51385*	.13552	.001	.1951	.8326
	. The mean difference is sign. The mean difference is significant at the 0.05 level.icant at the 0.05 level.							

The next step was to employ factor analysis on Indicators as Measure of Development. The results of factor analysis are shown through Table 4.8 d.

Table 4.8d: **Q17 Indicators as Measure of Development- Results through Factor Analysis**

	Rotated Component Matrixa	Component	
A	**INDICATORS: QUALITY OF LIVING ENVIRONMENT**	**1**	**2**
17.6	Average Availability/ consumption of other resources - Water per day per head,	0.883	
17.10	Availability of Hospital beds – say per 1,00,000 populations	0.769	
17.2	Average commute/ travel time in the city,	0.724	
17.4	Average Per Capita income,	0.698	
17.8	Literacy rate, quality of education and skill development- say seats in educational institutes per 1,00,000 populations, Teacher-student ratio etc.	0.64	
17.7	Average Per Capita expenditure /Average Cost of living– Rentals, transport, food, essential commodities, entertainment, medical care, schooling, etc.	0.508	
	Eigen Value	**3.253**	
	Percentage of variance explained	**32.533**	

Table 4.8d: **Q17 Indicators as Measure of Development- Results through Factor Analysis**			
	Rotated Component Matrixa	**Component**	
B	**INDICATORS: QUALITY OF WORKING ENVIRONMENT**		
17.3	Ease of doing business in region: Govt. Policies, approvals, sanctions, permissions etc.		0.813
17.1	Infrastructure Index - Roads, Water, sewerage, drainage, Gas Pipelines, Fibre Optic Backbone per unit area etc.		0.765
17.9	Number of job opportunities per 1,00,000 populations in secondary and tertiary sectors like IT, film, manufacturing, government, tourism etc., rate of un-employment, average salary etc.		0.653
17.5	Availability and cost of energy per head – Fuel, electricity, gas/ LPG		0.641
	Eigen Value	**2.528**	
	Percentage of variance explained	**25.284**	
	Cumulative Percentage of variance explained	**57.817**	
	Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization.,a. Rotation converged in 3 iterations.		

	KMO and Bartlett's Test		
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.851	
	Bartlett's Test of Sphericity	Approx. Chi-Square	1129.505
		df	28
		Sig.	.000

4.1.7.3 Indicators as Measure of Development - Results through Factor Analysis

Two factors emerged from rotated explaining 57.817 % of the variance for indicators as the measures of the development of a region (**Table 4.8d)**:

i. *Quality of living environment*: Quality of living environment drew up six items and emerged as the most important factor with Eigen value of 3.253, explaining variance of 32.533 %. The items included in this factor are:

- Average availability/ consumption of other resources - water per day per head (0.883);
- Availability of hospital beds- say per 1,00,000 population (0.769);
- Average commute/travel time in the city (0.724);
- Average per capita income (0.698);

- Literacy rate, quality of education and skill development-say seats in educational institutes per 1,00,000 population, teacher-student ratio etc (0.64); and
- Average per capita expenditure/Average cost of living-rentals, transport, food, essential commodities, entertainment, medical care, schooling, etc. (0.508).

The major elements extracted by the respondents under this factor related to aspiration or expectation of living a better life quality as an outcome of planned development. This related to water resources, sanitation and health care etc.

ii. *Quality of working environment*: Quality of working environment drew up four components and emerged as the second factor with a total Eigen value of 2.528. This factor explained 25.284 percent of variation. Item loadings of these factors are:

- Ease of doing business in region: govt. policies, approvals, sanctions, permissions etc. (0.813);
- Infrastructure Index-roads, water, sewerage, drainage, gas pipelines, fiber optic backbone per unit area etc. (0.765);
- Number of job opportunities per 1,00,000 population in secondary and tertiary sectors like IT, film, manufacturing, government, tourism etc., rate of un-employment, average salary etc. (0.653); and
- Availability and cost of energy per head-fuel, electricity, gas/LPG (0.641).

The major elements extracted by the respondents under this factor related to aspiration or expectation of better work environment as an outcome of planned development. Ease of doing business relate to govt. policies, approvals, sanctions, permissions etc. For efficient business performance, access to key connectivity infrastructure like roads, water, sewerage, drainage, gas pipelines, fiber optic backbone per unit area etc. is essential.

The stakeholders had most concern for two occupancies where they spend maximum life time, i.e., quality living space and quality work places. Availability of resources like water, sanitation and healthcare had been given importance near home. While ease of doing business and Infrastructure index was accorded importance in the work place. At workplace, respondents accorded ensuing priority to high per capita income and job opportunity justifying criticality of economic factors for developmental index.

Rightly so, the quality and time taken for travel between living and work places was accorded high ranking in both the environments. Comfort and time taken for travel were important for all ages as working population or otherwise like children, the aged and housewives, preferred to spend less travel time and in more comfort.

An attitudinal change was evident in the mindsets of Indian citizens where quality, not cost of work and living environment, was taking first precedence and indices such as expenditure, income, cost of energy etc. were accorded lower ratings. The citizens had preferred higher infra development as compared to low costs and low facility scenario. The stakeholders seemed to be ready to pay the price for good quality infrastructure.

The section (4.18) covers the regional versus local development.

4.1.8 Q18 Development through Integrated Regional Planning as Compared to Local Development

4.1.8.1 Regional versus Local Development-Analysis and Results through Weighted Average

The results in **Table 4.9a** indicated that respondents from all three groups, favored option with sound principles of integrated planning which can promote balanced growth ranking these criteria at number one with **1736** score on weighted average, plugging for better advantage under regional rather than local theory. *This concept provides basic infrastructure i.e. electric power, potable water, public health services and trunk infrastructure for entire region rather than individual towns and localities which otherwise might get marginalized through localized preferences.* Secondly, provision of regional planning would promote business, trade and industry, with a score of **1713**, ensuring better profits to the stakeholders whereas the local planning/town planning would not be able to ensure this. With a score of **1663**, clear jurisdiction breeds easy maintenance at less cost and regulatory comfort, and thus seemed to reduce the overall cost and time of creation and maintenance of infrastructure as compared to when it is done by each town separately. *Bigger development begets added benefits, thus the stakeholders would also promote and support the concept of regional integrated planning rather than local one.*

The findings of this part of the dissertation support the following hypothesis:

H-3: *Stakeholders believe that development through comprehensive regional planning is better than development through integrating separately developed sub-regional planning areas. All three groups, favored option with sound principles of integrated planning which can promote balanced growth ranking this criterion at number one i.e. RMP enables technical sound and balanced growth and services.*

Table 4.9a: Q18 Regional versus Local Development
Results through Weighted Average

Q. 18	Development through RMP vs. local development	1	2	3	4	5	WT. Avg.	WT. Rank
18.1	Clear jurisdiction breeds easy maintenance at less cost and regulatory comfort	9	42	67	206	109	1663	3
18.2	RMP enables bigger development, better business, bigger return	6	27	121	202	77	1616	5
18.3	Defined parameters enables transparency and citizen friendly approvals	8	46	156	153	70	1530	6
18.4	Legal supply of land enables easy enforcement and regulation	10	56	161	123	83	1512	8
18.5	RMP enables cost effectiveness vs. integrated small areas into regions	12	93	98	124	106	1518	7
18.6	RMP enables connectivity and access for opening up of hinterland	13	49	80	187	104	1619	4
18.7	RMP enables technical sound and balanced growth and services	3	38	87	129	176	**1736**	**1**
18.8	RMP promotes business, trade and industryand garner stakeholders' support	6	32	92	148	155	1713	2

4.1.8.2 Regional versus Local Development- Results through ANOVA and Tukey's HSD

ANOVA **(Table 4.9b)** was performed to understand whether there existed a significant difference in the means of LR, SD and DD regarding regional versus local development. The results are significant for all but two factors, viz. (i) RMP enables bigger development, better business, bigger return defined parameters enables transparency and (ii) Citizen friendly approvals. Thus results indicated a significant difference in means of different stakeholders regarding this factor.

Table 4.9b: Q18 Regional versus Local Development
Results through ANOVA

Q. 18	Regional versus Local Development		Sum of Squares	Df	Mean Square	F	Sig.
18.1	Clear jurisdiction breeds easy maintenance at less cost and regulatory comfort	Between Groups	6.805	2	3.402	3.599	**.028***
		Within Groups	406.516	430	.945		
		Total	413.321	432			
18.2	RMP enables bigger development, better business, bigger return	Between Groups	4.011	2	2.006	2.646	**.072**
		Within Groups	325.975	430	.758		
		Total	329.986	432			
18.3	Defined parameters enable transparencyand citizen friendly approvals.	Between Groups	3.716	2	1.858	2.081	**.126**
		Within Groups	383.979	430	.893		
		Total	387.695	432			
18.4	Legal supply of land enables easy enforcement and regulation	Between Groups	6.184	2	3.092	3.008	**.050***
		Within Groups	442.061	430	1.028		
		Total	448.245	432			
18.5	RMP enables cost effectiveness vs. integrated small areas into regions	Between Groups	32.414	2	16.207	12.722	**.000*****
		Within Groups	547.790	430	1.274		
		Total	580.203	432			
18.6	RMP enables connectivity and accessfor opening up of hinterland	Between Groups	8.021	2	4.010	3.745	**.024***
		Within Groups	460.524	430	1.071		
		Total	468.545	432			
18.7	RMP enables technical sound and balanced growth and services	Between Groups	34.089	2	17.044	17.971	**.000*****
		Within Groups	407.828	430	.948		
		Total	441.917	432			
18.8	RMP promotes business, trade and industryand garner stakeholders' support	Between Groups	34.937	2	17.468	19.146	**.000*****
		Within Groups	392.315	430	.912		
		Total	427.252	432			

*** Significant at .1 percent levels, ** Significant at 1 percent level, * Significant at 5 percent level

Post Hoc Tukey's HSD highlighted that no item was completely significant for all three stakeholders. Two items showed no variance where all stakeholders had same voice for

(i) RMP enables bigger development, better business, bigger return and (ii) Defined parameters enables transparency and citizen friendly approvals. While (i) Clear Jurisdiction breeds easy maintenance at less cost and regulatory comfort (ii) Legal supply of land enables easy enforcement and regulation (iii) RMP enables cost effectiveness vs. integrated small areas into regions, (iv) RMP enables connectivity and access for opening up of hinterland, (v) RMP enables technical sound and balanced growth and services and (vi) RMP promotes business, trade and industry and garner stakeholders' supportexhibited similarity or difference of opinion amongst two out of three stakeholders on the same issue. *As rationalizing effect there is an alliance between LR and DD for the component of technical sound and balanced growth and services. They seem to unite for safeguarding better delivery and express a desire for state of the art infrastructure development from SD*. Furthermore, LR SD and DD, all unite together, plugging for RMP to enables bigger development for better business and better returns i.e. better regional planning process which would result into appreciation of land value, increased business velocity and improvement in the living standards due to overall planning, optimal allocation and use of resources etc. in the overall regional plan. As such the bigger development brings better returns. Thus, the Hypothesis *H-3* is accepted.

The findings of this part of the dissertation support the proposed hypothesis that:

H-3: *Stakeholders believe that development through comprehensive regional planning is better than development through integrating separately developed sub-regional planning areas.*

Table 4.9c: Q18 Regional versus Local Development
Results through Tukey's HSD

S/n	Sub- Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
18.1	Clear jurisdiction breeds easy maintenance at less cost and regulatory comfort	LR	SD	-.44231*	.16514	.021	-.8307	-.0539
			DD	-.27985	.14695	.139	-.6255	.0657
		SD	LR	.44231*	.16514	.021	.0539	.8307
			DD	.16245	.11182	.315	-.1005	.4254
		DD	LR	.27985	.14695	.139	-.0657	.6255

Table 4.9c: Q18 Regional versus Local Development

Results through Tukey's HSD

S/n	Sub- Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
			SD	-.16245	.11182	.315	-.4254	.1005
18.2	RMP enables bigger development, better business, bigger return	LR	SD	-.2596	.1479	.186	-.607	.088
			DD	-.3026	.1316	.057	-.612	.007
		SD	LR	.2596	.1479	.186	-.088	.607
			DD	-.0430	.1001	.903	-.279	.192
		DD	LR	.3026	.1316	.057	-.007	.612
			SD	.0430	.1001	.903	-.192	.279
18.3	Defined parameters enables transparencyand citizen friendly approvals	LR	SD	-.30769	.16050	.135	-.6852	.0698
			DD	-.27111	.14282	.140	-.6070	.0648
		SD	LR	.30769	.16050	.135	-.0698	.6852
			DD	.03659	.10867	.939	-.2190	.2922
		DD	LR	.27111	.14282	.140	-.0648	.6070
			SD	-.03659	.10867	.939	-.2922	.2190
18.4	Legal supply of land enables easy enforcement and regulation	LR	SD	-.36538	.17221	.087	-.7704	.0396
			DD	-.36844*	.15324	.044	-.7288	-.0080
		SD	LR	.36538	.17221	.087	-.0396	.7704
			DD	-.00305	.11660	1.000	-.2773	.2712
		DD	LR	.36844*	.15324	.044	.0080	.7288
			SD	.00305	.11660	1.000	-.2712	.2773
18.5	RMP enables cost effectiveness vs. integrated small areas into regions	LR	SD	-.20192	.19170	.544	-.6528	.2489
			DD	-.69196*	.17058	.000	-1.0931	-.2908
		SD	LR	.20192	.19170	.544	-.2489	.6528
			DD	-.49004*	.12980	.001	-.7953	-.1848
		DD	LR	.69196*	.17058	.000	.2908	1.0931
			SD	.49004*	.12980	.001	.1848	.7953
18.6	RMP enables connectivity and accessfor opening	LR	SD	-.38462	.17577	.074	-.7980	.0288
			DD	-.08616	.15640	.846	-.4540	.2817

Table 4.9c: Q18 Regional versus Local Development
Results through Tukey's HSD

S/n	Sub- Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
	up of hinterland	SD	LR	.38462	.17577	.074	-.0288	.7980
			DD	.29846*	.11901	.033	.0186	.5784
		DD	LR	.08616	.15640	.846	-.2817	.4540
			SD	-.29846*	.11901	.033	-.5784	-.0186
18.7	RMP enables technical sound and balancedgrowth and services	LR	SD	-.56731*	.16540	.002	-.9563	-.1783
			DD	.10115	.14718	.771	-.2450	.4473
		SD	LR	.56731*	.16540	.002	.1783	.9563
			DD	.66846*	.11200	.000	.4051	.9319
		DD	LR	-.10115	.14718	.771	-.4473	.2450
			SD	-.66846*	.11200	.000	-.9319	-.4051
18.8	RMP promotes business, trade and industryand garner stakeholders' support	LR	SD	-.73077*	.16223	.000	-1.1123	-.3492
			DD	-.08151	.14436	.839	-.4210	.2580
		SD	LR	.73077*	.16223	.000	.3492	1.1123
			DD	.64926*	.10985	.000	.3909	.9076
		DD	LR	.08151	.14436	.839	-.2580	.4210
			SD	-.64926*	.10985	.000	-.9076	-.3909
	*. The mean difference is significant at the 0.05 level.							

Further Factor analysis was used to reduce the variables. The results are depicted through table 4.9 d.

Table 4.9d: Q18 Regional versus Local Development
Results through Factor Analysis

	Rotated Component Matrix[a]	Component	
A	**REGIONAL vs. LOCAL: AMPLIFICATION OF GOVERNANCE FACTOR**	1	2
18.5	In the long-run a planned growth of the entire region is more cost effective than the isolated development of small individual areas/ towns/ localities or unorganized and organic growth in smaller pockets and thereafter trying to integrate these smaller areas into the larger region.Through regional planning it would be possible to identify the bigger infrastructure projects, which are otherwise not so viable through the State funding, for execution on Public	0.793	

Table 4.9d: Q18 Regional versus Local Development

Results through Factor Analysis

	Rotated Component Matrix[a]	Component	
	Private Partnership mode on longer time frame. This may not be possible in case of individual town-wise master planning is resorted to. The State's financial resources thus spared could be used for other important developmental needs of the local plans.		
18.4	In the regional planning process, the regulation of development process would be far easier and according to rules, as people would be aware of the land use in various pockets which will determine the land value in that pocket. This will help reduce the unnecessary violations. The availability of legally developed land would also reduce the violations, regulatory requirements and court interventions. The enforcement of planned development would be much easier for the regulators and any legal action for violation would be able to stand the Judicial/ Legal scrutiny in case of regional planning as it would be for the good of the public at large rather than serving the interest of the smaller areas/ groups as in case of local planning.	0.763	
18.3	Since in the regional planning process the entire land and other resources are earmarked, the approval processed for all future projects become objective and citizen friendly. This will vastly improve the procedures and make the approval process easier and more transparent. This may not be possible in case individual town wise master planning is resorted to.	0.716	
18.2	Regional planning process would result into appreciation of land value, increased business velocity and improvement in the living standards due to overall planning, optimal allocation and use of resources etc. in regional plan. As bigger development brings better returns. This would be better than individual municipal committees working independently without a regional outlook.	0.693	
18.1	Regional integrated planning would bring down duplication of efforts, bring clarity about the jurisdictions and responsibilities of various development/ regulatory agencies/ authorities and thus reduce the overall cost and time of creation and maintenance of infrastructure as compared to when it is done by each town separately.	0.513	
	Eigen Value	**2.6**	
	Percentage of variance explained	**32.501**	
B	**REGIONAL vs. LOCAL: BENEFITS TO STAKEHOLDERS OTHER THAN GOVERNMENTS**	1	2
18.7	Provision for basic infrastructure i.e. electric power, potable water, public health services and trunk infrastructure for all towns in the region is technically more sound and balanced in the integrated planning process rather than individual towns and localities which may get marginalized and localized preferences.		0.825
18.8	Provision of regional planning would promote business, trade and industry ensuring better profits to the stakeholders whereas the local planning/ town planning would not be able to ensure this. Therefore, the stakeholders would		0.822

Table 4.9d: Q18 Regional versus Local Development
Results through Factor Analysis

	Rotated Component Matrix[a]	Component	
	promote and support the concept of regional planning.		
18.6	Better accessibility and connectivity and opening up of hinterlandis one of the important priorities for a region to grow. This may not be possible in case individual town-wise master planning is resorted to. Therefore, the regional planning should be preferred over local planning, even if its implementation would require more financial resources.		0.723
	Eigen Value	**2.357**	
	Percentage of variance explained	**29.466**	
	Cumulative Percentage of variance explained	**61.968**	
	Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 3 iterations.		

	KMO and Bartlett's Test		
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.815	
	Bartlett's Test of Sphericity	Approx. Chi-Square	1128.191
		df	28
		Sig.	.000

4.1.8.3 Regional versus Local Development-Analysis and Results through Factor Analysis

Factor analysis helped in classifying 8 items into two significant factors, accruing 61.968 % of the variance for advantages of integrated development through regional planning as compared to local town planning **(Table 4.9c).** These are:

i. *Amplification of governance factor (RMP1)*: This factor drew up five items and had emerged as an important factor, justifying regional theory rather than local planning explaining a total variance of 32.501 with Eigen value of 2.6. The major elements accrued under this factor with individual factor loadings are:

   - RMP enables cost effectiveness as infrastructure is likely to be viable at a regional of scale and can bring down costs. Scarce resources can be utilized on other deserving or competing demands (0.793);
   - Legal supply of land enables easy enforcement and regulation (0.763);
   - Defined parameters enables transparency and citizen friendly approvals (0.716);

- RMP enables bigger development, better business, bigger return (0.693); and
- Clear jurisdiction breeds easy maintenance at less cost and regulatory comfort (0.513).

Stakeholders decisively segregated the core government functions and aggregating them under the governance factor, clearly demonstrating their strong concern for this aspect. This factor needs amplification for betterment of region andpublic at large

The foremost concern expressed by respondentswas a wish for government to select, the most cost effective development model. Planned growth of the entire region looked more viable than development of small individual areas or unorganized and organic growth. This could be very much possible by identifying bigger infrastructure projects with innovative models. The State's financial resources could then be spared for other pressing needs.

Because of regional planning process the regulation of development would be easier and according to rules and regulations. Respondents felt that, as people would be aware of the land use and consequently its value, it would enable legal supply and bring down violations and unauthorized construction and. Buyers would also prefer to purchase property in legal development. Government task would be easier as legally developed land would reduce violations requiring less regulationand court interventions.

Stakeholders felt that if government could adopt regional planning process, then the entire land and other resources would be earmarked in accordance with usage and bring clarity and transparency. *On these grounds, the approval process could improve, become objective, easier, transparent and citizen friendly. This may not be possible in case individual town wise master planning is resorted to*.

The findings of this part of the dissertation support the following proposed hypotheses:
H-1: All the stakeholders strongly believe that the comprehensive regional planning will ensure the effective and efficient development of a region. 1st item of factor 7 on RMP enabled cost effectiveness: viability and identification of infrastructure projects through long term innovative modes, allocation funds to other deserving demands.

H-3: Stakeholders believe that development through comprehensive regional planning is better than development through integrating separately developed sub-regional planning areas. As regional plan supports enabled cost effectiveness: viability and Identification of

infrastructure projects through long term innovative modes, allocation funds to other deserving demands as compared to local plan.

ii. *Benefits to stakeholders other than government (RMP2)*: This factor drew-up three items and had emerged as the second most important factor with a high variance of 29.446 with Eigen value of 2.357.The major elements collated under this factor are:

- RMP enables technical sound and balanced growth and services (0.825);
- RMP promotes business, trade and industryand garner stakeholders' support (0.822); and
- RMP enables connectivity and accessfor opening up of hinterland (0.723).

The other important research factors of RMP question, regional versus local development emerged as benefits to stakeholders other than the government. Stakeholders segregated and accrued the personal benefits under this factor, clearly demonstrating their individual gains as group affiliations.

Provision for basic infrastructure was found technically more sound and balanced in the integrated planning process rather than individual towns and localities which may get marginalized and localized preferences and discriminated against. Thus, stakeholders could gain in electric power, potable water, public health services & trunk infrastructure etc., which are high investment infrastructure not affordable at local level.

It would promote business, trade and industry ensuring better profits to the stakeholders, therefore, the stakeholders had promoted and supported the concept of regional planning. Within larger economic gains, the stakeholders could make better profits whereas the local planning/town planning alone would not be able to ensure this.

Better accessibility and connectivity and opening up of hinterlands emerged as one of the important priority for a region to grow and benefit the stakeholders.This may not be possible in case individual town wise master planning is resorted to. *Therefore, the regional planning should be preferred over local planning, even if its implementation would require more financial resources at the cost of government.*

The findings of this part of the dissertation support the following proposed hypotheses:

H-1: All the stakeholders strongly believe that the comprehensive regional planning will ensure the effective and efficient development of a region. 1st item of Factor 8 to RMP enables technically sound and balanced distribution of services: like basic infrastructure, electric power, potable water, public health services and trunk infra.

H-3: Stakeholders believe that development through comprehensive regional planning is better than development through integrating separately developed sub-regional planning areas.

As RMP promotes technically sound and balanced growth, and services business, trade and industry and garner stakeholders' support, thus the above hypothesis has been accepted.

After analyzing the results for deriving factors important for regional master planning, it became impertinent to focus on hindrance factors.

The next section 4.1.9 presents analysis on barriers/ hindrances to RMP and development.

4.1.9 Q19 Barriers/Hindrances to Regional Urbanization and Planned Development

4.1.9.1 Barriers/ Hindrances to RMP and Development-Analysis and Results through Weighted Average

The results in **Table 4.10a** indicated that respondents from all three groups rated lack of awareness and education regarding benefits of RMP, as number one barrier or hindrance for development with **1555** score. Pressure from vested groups, political, business hype andcorruption was second most important stumbling block with **1551** score. Ranked at third with **1489** score was long procedures, delay, red-tapeism and multi-agency. This was also considered a culprit that impedes planned development. There by the barriers if addressed were actually presenting the door towards better regional urbanization and planned development. Escalation of property rates at lowest rank with **1412** weightage, brought out that cost was not much of a concern for a Punjabi.

Lack of awareness and education had emerged as a major factor inferring that it was a critical component for development and stakeholdersare likely to consider it as an attribute if development does not take place or if it does, it is shoddy or not as laid down in the plan document. Pressure from vested groups, political, business hype and corruption were next important barrier to planned urbanization. Another important issue necessitating attention were long procedures, delay, red-tapeism and multi-agency. The other barriers were also not far behind as their Weighted Average scores broadly indicated that LR, SD and DD attributed all these as critical to regional urbanization and

departments must gear up and stream line procedures, undertake capacity building, create awareness, eradicate corruption and plug financial leakages.

Table 4.10a: Q19 Barriers/Hindrances to RMP and Development Results through Weighted Average

S/n	Sub-Components	1	2	3	4	5	WT. Avg.	WT. Rank
19.1	Lack of awareness and education	9	17	223	77	107	1555	1
19.2	Piecemeal not regional approach	1	19	258	117	38	1471	5
19.3	Long procedures, delay, red-tapeism and multi-agency	2	21	250	105	55	1489	3
19.4	Lack of initiative, interest and non-participation by stakeholders	6	24	254	97	52	1464	6
19.5	Transparency and acceptable method and cost of land acquisition	5	25	289	72	42	1420	7
19.6	Funds and implementation models for basic infra	4	54	267	72	36	1381	4
19.7	Unviability through cost escalation and hoax	1	48	267	71	46	1412	8
19.8	Corruption, pressure, resistance and vested interest	5	19	229	79	101	1551	2

4.1.9.2 Barriers/Hindrances to RMP and Development-Analysis and Results through ANOVA and Tukey's HSD

ANOVA **(Table 4.10b)** was performed to understand whether there existed a significant difference in the means of LR, SD and DD regarding barrier/ hindrance to development. The results were significant for all the factors, viz.(i) Lack of awareness and education, (ii) Piecemeal not regional approach, (iii) Long procedures , delay, red-tapeism and multi-agency, (iv) Lack of initiative, interest and non-participation by stakeholders, (v) Transparency and acceptable method and cost of land acquisition, (vi) Funds and implementation models for basic infra, (vii) Unviability through cost escalation and hoax and (viii) Corruption, pressure, resistance and vested interest. Thus results do indicate a significant difference in means of different stakeholders regarding hindrance factors.

Table 4.10b: Q19 Barriers/Hindrances to RMP and Development

Results through ANOVA

S/n	Sub-Components		Sum of Squares	df	Mean Square	F	Sig.
19.1	Lack of awareness and education	Between Groups	123.302	2	61.651	93.027	**.000*** **
		Within Groups	284.971	430	.663		
		Total	408.273	432			
19.2	Piecemeal not regional approach	Between Groups	30.413	2	15.206	33.798	**.000*** **
		Within Groups	193.467	430	.450		
		Total	223.880	432			
19.3	Long procedures, delay, red-tapeismand multi-agency	Between Groups	35.511	2	17.755	32.166	**.000*** **
		Within Groups	237.353	430	.552		
		Total	272.864	432			
19.4	Lack of initiative, interest and non-participation by stakeholders	Between Groups	43.023	2	21.511	37.433	**.000*** **
		Within Groups	247.102	430	.575		
		Total	290.125	432			
19.5	Transparency and acceptable method and cost of land acquisition	Between Groups	11.195	2	5.598	10.030	**.000*** **
		Within Groups	239.992	430	.558		
		Total	251.187	432			
19.6	Funds and implementation models for basic infra	Between Groups	6.645	2	3.323	5.350	**.005** **
		Within Groups	267.059	430	.621		
		Total	273.704	432			
19.7	Unviability through cost escalation and hoax	Between Groups	3.843	2	1.922	3.020	**.050** *
		Within Groups	273.667	430	.636		
		Total	277.510	432			
19.8	Corruption, pressure, resistance and vested interest	Between Groups	83.061	2	41.531	59.807	.000*** **
		Within Groups	298.597	430	.694		
		Total	381.658	432			

*** Significant at .1 percent levels, ** Significant at 1 percent level, * Significant at 5 percent level

Results of Tukey's HSD (**Table 4.10c)** highlighted that two components were completely significant for all three stakeholders (i) Lack of awareness and education and (ii) Corruption, pressure, resistance and vested interest which exhibited complete variance. One component was completely insignificant for all three stakeholders (i) Unviability through cost escalation and hoax and did not display any variance so the LR, SD and DD seem to be agreeing in unison. The remaining components (i) Piecemeal not regional approach, (ii) Long procedures, delay, red-tapeism and multi- agencies, (iii) Lack of initiative, interest and non-participation by stakeholders, (iv) Transparency and acceptable method and cost of land acquisition, (v) Funds and implementation models for basic infra displayed similarity or difference of opinion amongst two out of three stakeholders on the same issue.

As far as lack of initiative, interest and non-participation by stakeholders is concerned, the SD which comprises of government and builders seem to single handedly resist the tendency of LR and DD to not to participate in development. This was up to then considered as SD mainstay. In another example the LR and the DD are not seeing eye to eye with component of shortage of funds, private public partnership models with the government for creating the basic infrastructure required for the planned regional development. SD role in this component of RMP seems to be that of a mediator or facilitator, attempting to form alliance with both LR and DD and compel them to participate in the development of the region.

The findings of this part of the *dissertation* support the proposed hypothesis that:

H-2: Participation of Stakeholders and incorporating their shared vision and expectations in planning is critical for development.

Table 4.10c: Q19 Barriers/Hindrances to RMP and Development
Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
19.1	Lack of awareness and education	LR	SD	-.65385*	.13826	.000	-.9790	-.3287
			DD	.60671*	.12303	.000	.3174	.8961
		SD	LR	.65385*	.13826	.000	.3287	.9790
			DD	1.26055*	.09362	.000	1.0404	1.4807

Table 4.10c: Q19 Barriers/Hindrances to RMP and Development

Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
		DD	LR	-.60671*	.12303	.000	-.8961	-.3174
			SD	-1.26055*	.09362	.000	-1.4807	-1.0404
19.2	Piecemeal not regional approach	LR	SD	-.11538	.11392	.569	-.3833	.1525
			DD	.47091*	.10137	.000	.2325	.7093
		SD	LR	.11538	.11392	.569	-.1525	.3833
			DD	.58630*	.07714	.000	.4049	.7677
		DD	LR	-.47091*	.10137	.000	-.7093	-.2325
			SD	-.58630*	.07714	.000	-.7677	-.4049
19.3	Long procedures, delay, red-tapeismand multi-agency	LR	SD	-.24038	.12618	.138	-.5372	.0564
			DD	.41919*	.11228	.001	.1551	.6833
		SD	LR	.24038	.12618	.138	-.0564	.5372
			DD	.65957*	.08544	.000	.4586	.8605
		DD	LR	-.41919*	.11228	.001	-.6833	-.1551
			SD	-.65957*	.08544	.000	-.8605	-.4586
19.4	Lack of initiative, interest and non-participation by stakeholders	LR	SD	-.50000*	.12875	.000	-.8028	-.1972
			DD	.25340	.11457	.070	-.0160	.5228
		SD	LR	.50000*	.12875	.000	.1972	.8028
			DD	.75340*	.08718	.000	.5484	.9584
		DD	LR	-.25340	.11457	.070	-.5228	.0160
			SD	-.75340*	.08718	.000	-.9584	-.5484
19.5	Transparency and acceptable method andcost of land acquisition	LR	SD	-.01923	.12688	.987	-.3176	.2792
			DD	.32192*	.11291	.013	.0564	.5875
		SD	LR	.01923	.12688	.987	-.2792	.3176
			DD	.34116*	.08592	.000	.1391	.5432
		DD	LR	-.32192*	.11291	.013	-.5875	-.0564
			SD	-.34116*	.08592	.000	-.5432	-.1391
19.6	Funds and implementation models for	LR	SD	.25962	.13385	.129	-.0552	.5744
			DD	.38087*	.11910	.004	.1008	.6610

Table 4.10c: Q19 Barriers/Hindrances to RMP and Development
Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
	basic infra	SD	LR	-.25962	.13385	.129	-.5744	.0552
			DD	.12125	.09063	.375	-.0919	.3344
		DD	LR	-.38087*	.11910	.004	-.6610	-.1008
			SD	-.12125	.09063	.375	-.3344	.0919
19.7	Unviability through cost escalation andhoax	DD	SD	.05769	.13549	.905	-.2610	.3764
			DD	.23174	.12057	.134	-.0518	.5153
		SD	DD	-.05769	.13549	.905	-.3764	.2610
			DD	.17405	.09175	.141	-.0417	.3898
		DD	LR	-.23174	.12057	.134	-.5153	.0518
			SD	-.17405	.09175	.141	-.3898	.0417
19.8	Corruption, pressure, resistance and vested interest	LR	SD	-.55769*	.14153	.000	-.8906	-.2248
			DD	.47924*	.12594	.000	.1830	.7754
		SD	LR	.55769*	.14153	.000	.2248	.8906
			DD	1.03693*	.09583	.000	.8115	1.2623
		DD	LR	-.47924*	.12594	.000	-.7754	-.1830
			SD	-1.03693*	.09583	.000	-1.2623	-.8115

*. The mean difference is significant at the 0.05 level.

Further Factor analysis was used to reduce the variables. The results are depicted through table 4.10 d.

Table 4.10d: Q19 Barriers/Hindrances to RMP and Development
Results through Factor Analysis

	Rotated Component Matrix	Component	
A	**BARRIERS: APPROVALS: HUMAN AND PROCEDURAL INTERVENTIONS**	**1**	**2**
19.1	Lack of Awareness and education of stakeholders regarding the benefits of the development through regional planning.	.857	
19.8	Pressure from vested interest groups, political and business hype associated, including the resistance by the forces benefiting from corruption, which continuously hamper the success of any regional planning and development	.807	

Table 4.10d: Q19 Barriers/Hindrances to RMP and Development Results through Factor Analysis				
	Rotated Component Matrix		**Component**	
19.3	Long procedures and delay in finalizing the regional master plans and development projects in a time bound manner. Red-tapeism and involvement of multi- agencies.		.686	
19.2	Forced to take a piecemeal approach rather that an approach of regional comprehensive planning for the entire region and development thereof.		.677	
19.4	Lack of initiative and participation from the stakeholders viz., Government officials, local community - neither involved, committed nor have enough sustaining interest.		.669	
	Eigen Value		**2.879**	
	Percentage of variance explained		**35.985**	
B	**BARRIERS: INFRASTRUCTURE: FINANCIAL AND PROJECT STRUCTURING**			
19.6	Shortage of funds / Private public partnership models with the Government for creating the basic infrastructure required for the planned regional development			.835
19.7	Escalation of rates by the intermediaries and property dealers through hoax deals and thereby making the projects unviable ab-initio.			.791
19.5	Transparent and acceptable method of acquiring the land by the Government or the developers that can also be acceptable to land owner at optimum cost.			.603
	Eigen Value		**2.006**	
	Percentage of variance explained		**25.077**	
	Cumulative Percentage of variance explained		**61.062**	
	Extraction Method: Principal Component Analysis. , Rotation Method: Varimax with Kaiser Normalization., a. Rotation converged in 3 iterations.			
	KMO and Bartlett's Test			
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.824	
	Bartlett's Test of Sphericity	Approx. Chi-Square		1119.978
		df		28
		Sig.		.000

4.1.9.3 Barriers/ Hindrances to RMP and Development-Analysis and Results through Factor Analysis

For this question also, factor analysis was performed to help classify 8 hindrance items into two factors, explaining 61.062 % of the variance **(Table 4.10d).** These are:

i. *Approvals: human and procedural interventions:* The first factor drew up five items with Eigen value of 2.879, explaining 35.985 % of variance. The factor loadings of items are:

- Lack of awareness and education (.857);
- Corruption, pressure, resistance and vested interest (.807);
- Long procedures, delay, red-tapeism and multi- agencies (.686);

- Piecemeal not regional approach (.677); and
- Lack of initiative, interest and non-participation by stakeholders (.669).

The stakeholders identified this as the most critical barrier for effective regional urbanization and planned development. *Approvals: human and procedural interventions, appeared as universal factor for failure of Indian system. Lack of awareness and education of stakeholders apropos the benefits of the development through regional planning, emerged as the key issue in this barrier.*

In stakeholders' opinion as soon as the development process emerged from drawing board onto the public domain and interface of government began with DD or SD from private sector, the key problems arises and very strongly so. *In stakeholders' perception, the first contact between government and private created an effervescent and slushy environment for corruption under undue pressure from political, business and other vested interest*.

The lengthy procedures devised to prevent such an eventuality actually were exploited for loopholes, red-tapeism and delay, consequently giving birth to breeding ground for corruption and undue favoritism for "a consideration." The approval procedure is further complicated by a multi-agency factor meaning that DD and private SD were shunted from office to office and from table to table with endless paperwork, formalities, different formats and various fee structures. Sometimes circumstances compelled to adopt a piecemeal approach, thereby defeating the regional approach to development.

ii. *Infrastructure: financial and project structuring*: The second factor has three items with Eigen value of 2.006, explaining 25.077 % of variance. Component wise factor loading value:

- Funds and implementation models for basic infra (.835);
- Unviability through cost escalation and hoax (.791); and
- Transparency and acceptable method and cost of land acquisition (.603).

The stakeholders' identified the other critical factor from the barriers for an effective regional urbanization question, by clustering them under Infrastructure: financial and project structuring. *Interesting part of research was that stakeholders' inputs on the barriers proffered cues for emerging from the abysmal abyss of the delivery challenge.*

The project structuring was found to be a critical factor not to forget its financial modeling in sync with project type, its implementation agency and monetary configuration. Most plan documents

are ambitious. At the time of preparation of development document, it should be seen that the size of development was in sync with expected population and phasing plan, and the time lines can be defined in accordance with the available human, financial resources and migration trends.

The regional plan document should ideally be converted into development document. This was not being done in a systematic manner and there was definitely a gap there. There was very little focus on this aspect as there were varied and multi-implementing agencies, from government to PSU to private and public private, down to individual small end user. Land resources were fragmented and financial options were foggy. *The blue print for executable implementation of development must begin with land assembly design or planning criteria, speak about infrastructure projects like trunk infrastructure, transport options, utility services, urbanized land for human facilities, housing, commercial, work and living places not to forget care for environment, water and be inclusive*. The respondents seemed to have segregated the core delivery factors under barriers and challenges.

The next section 4.1.10 presents analysis on challenges in implementing RMP.

4.1.10 Q23 Challenges in Implementing RMP for Development

4.1.10.1Challenges in Implementing RMP–Analysis and Results through Weighted Average

The results in **Table 4.11a** indicated that respondents from all three groups ranked Transparent, accountable, efficient and effective estate office/regulator at number one with **1707** score on weighted average, *inferring that transparency, accountability, efficiency and effectiveness are important for implementation of regional level development*. Effective working of estate office meaning thereby that maintaining land, property or real estate record, its implementation as per law and regulation is important. Mechanism for bold or fast policy level initiatives and decision making progressive and citizen friendly rules, regulations, building byelaws to keep up with current trends is also important. Technology is the next preference with a score of **1494,** clearly indicating the importance of this factor in development. Challenge of delivery in a time bound and transparent manner in the environment of public mistrust, media activism, RTI, judicial activism etc. was given a rank of three with a score of **1467**. Gestation period and viability of the government's own projects in the wake of tough competition from the private sector which are necessary to generate funds ranked at eleventh position with **1278** score. With this in stakeholders' opinion, private sector has entered the development scenario with a bang, possibly at the cost of government sector.

Table 4.11a: Q23 Challenges in Implementing RMP- Results through Weighted Average								
S/n	**Sub-Components**	**1**	**2**	**3**	**4**	**5**	**WT. Avg.**	**WT. Rank**
23.1	Financing and maintaining regional infrastructure in face of profiteering by private sector	6	7	315	71	34	1419	4
23.2	Financing social infrastructure	7	26	320	41	39	1378	7
23.3	Legal hassles	24	12	297	63	37	1376	8
23.4	Resistance to land acquisition	3	54	277	46	53	1391	6
23.5	Financing R&R and land acquisition	8	62	289	37	37	1332	9
23.6	Sustainable business model for regional development	26	43	286	48	30	1312	10
23.7	Viability, gestationand financing of Government projects	41	34	283	55	20	1278	11
23.8	Regulatory regime and investors' confidence	5	23	281	96	27	1413	5
23.9	HRD capacity and enforcement	53	36	269	42	33	1265	12
23.10	Transparent, accountable, efficient and effective regulator	8	26	117	114	168	1707	1
23.11	Technology, policyand procedural issues	3	9	283	66	72	1494	2
23.12	Implementation challenges	2	21	268	91	51	1467	3

4.1.10.2 Challenges in Implementing RMP -Analysis and Results through ANOVA and Tukey's HSD

ANOVA **(Table 4.11b)** was performed to understand whether there existed a significance difference in the means of LR, SD and DD Challenge in Implementation of RMP. The results are significant for all factors highlighting that there is a significant difference in means regarding challenges in implementation of RMP.

Table 4.11b: Q23 Challenges in Implementing RMP–Results through ANOVA							
S/n	**Sub-Components**		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
23.1	Financing and maintaining regional infrastructure in face of profiteering by private sector.	Between Groups	12.464	2	6.232	13.731	**.000*** **
		Within Groups	195.161	430	.454		
		Total	207.626	432			
23.2	Financing social	Between	18.151	2	9.075	17.603	**.000*** **

Table 4.11b: Q23 Challenges in Implementing RMP–Results through ANOVA							
S/n	**Sub-Components**		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
	infrastructure	Groups					
		Within Groups	221.697	430	.516		
		Total	239.848	432			
23.3	Legal hassles	Between Groups	34.295	2	17.148	27.143	**.000*** **
		Within Groups	271.654	430	.632		
		Total	305.949	432			
23.4	Resistance to land acquisition	Between Groups	20.026	2	10.013	15.107	**.000*** **
		Within Groups	285.000	430	.663		
		Total	305.025	432			
23.5	Financing R&R and land acquisition	Between Groups	9.719	2	4.860	7.809	**.000*** **
		Within Groups	267.611	430	.622		
		Total	277.330	432			
23.6	Sustainable business modes for regional development	Between Groups	26.949	2	13.475	20.077	**.000*** **
		Within Groups	288.598	430	.671		
		Total	315.547	432			
23.7	Viability, gestationand financing of Government projects	Between Groups	38.081	2	19.040	27.754	**.000*** **
		Within Groups	294.996	430	.686		
		Total	333.076	432			
23.8	Regulatory regime and investors' confidence	Between Group	53.150	2	26.575	69.578	**.000*** **
		Within Groups	164.236	430	.382		
		Total	217.386	432			
23.9	HRD capacity and enforcement	Between Groups	33.601	2	16.800	18.673	**.000*** **

Table 4.11b: Q23 Challenges in Implementing RMP–Results through ANOVA							
S/n	**Sub-Components**		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
		Within Groups	386.884	430	.900		
		Total	420.485	432			
23.10	Transparent, accountable, efficient and effective regulator	Between Groups	120.522	2	60.261	126.141	**.000*** **
		Within Groups	205.423	430	.478		
		Total	325.945	432			
23.11	Technology, policy and procedural issues	Between Groups	130.737	2	65.368	179.558	**.000*** **
		Within Groups	156.543	430	.364		
		Total	287.279	432			
23.12	Implementation challenges	Between Groups	107.344	2	53.672	149.948	**.000*** **
		Within Groups	153.913	430	.358		
		Total	261.256	432			
	*** Significant at .1 percent levels, ** Significant at 1 percent level, * Significant at 5 percent level						

The results of Tukey's HSD **(Table 4.11c)** highlighted that (i) Resistance against land acquisition, (ii) Sustainable business models for regional development, (iii) Viability, gestation and financing of government projects, (iv) Transparent, accountable, efficient and effective regulator, (v)Technology, policy and procedural issues and (vi) Implementation challenges are significant. So the LR, SD and DD were seen to be different in their preferences for these components because the requirement of each segment for each component is expected to be different. For (i) Financing and maintaining regional infrastructure in face of profiteering by private sector, (ii) Financing social infrastructure, (iii) Legal hassles, (iv) Financing relief and rehabilitation (R & R) and land acquisition, (v) Regulatory regime and investors' confidence and (vi) HRD Capacity and enforcement are partially significant so the LR, SD and DD seem to exhibit similarity or dissimilarity of opinion on the same issue.

In yet another example from implementation challenge of financing and maintaining regional infrastructure, DD was seen to stand against the alliance between SD and LR and probably against their profit motive. Also LR and DD were seen to unite against SD for safeguarding their legal interests against frequent interventions by courts and other statutory bodies posing numerous legal challenges and delays.

Table 4.11c: Q23 Challenges in Implementing RMP–Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
23.1	Financing and maintaining regional infrastructure in face of profiteering by private sector	LR	SD	-.06731	.11442	.827	-.3364	.2018
			DD	.30630*	.10182	.008	.0668	.5458
		SD	LR	.06731	.11442	.827	-.2018	.3364
			DD	.37361*	.07748	.000	.1914	.5558
		DD	LR	-.30630*	.10182	.008	-.5458	-.0668
			SD	-.37361*	.07748	.000	-.5558	-.1914
23.2	Financing social infrastructure	LR	SD	-.13462	.12195	.512	-.4214	.1522
			DD	.32928*	.10852	.007	.0741	.5845
		SD	LR	.13462	.12195	.512	-.1522	.4214
			DD	.46390*	.08258	.000	.2697	.6581
		DD	LR	-.32928*	.10852	.007	-.5845	-.0741
			SD	-.46390*	.08258	.000	-.6581	-.2697
23.3	Legal hassles	LR	SD	-.51923*	.13499	.000	-.8367	-.2017
			DD	.15385	.12012	.407	-.1287	.4364
		SD	LR	.51923*	.13499	.000	.2017	.8367
			DD	.67308*	.09141	.000	.4581	.8881
		DD	LR	-.15385	.12012	.407	-.4364	.1287
			SD	-.67308*	.09141	.000	-.8881	-.4581
23.4	Resistance to land acquisition	LR	SD	.75962*	.13827	.000	.4344	1.0848
			DD	.52138*	.12304	.000	.2320	.8108
		SD	LR	-.75962*	.13827	.000	-1.0848	-.4344

Table 4.11c: Q23 Challenges in Implementing RMP–Results through Tukey's HSD

S/n	Sub-Components			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
			DD	-.23823*	.09363	.030	-.4584	-.0180
		DD	LR	-.52138*	.12304	.000	-.8108	-.2320
			SD	.23823*	.09363	.030	.0180	.4584
23.5	Financing R&R and landacquisition	LR	SD	.50000*	.13399	.001	.1849	.8151
			DD	.23063	.11923	.130	-.0498	.5110
		SD	LR	-.50000*	.13399	.001	-.8151	-.1849
			DD	-.26937*	.09072	.009	-.4827	-.0560
		DD	LR	-.23063	.11923	.130	-.5110	.0498
			SD	.26937*	.09072	.009	.0560	.4827
23.6	Sustainable business models for regional development	LR	SD	.79808*	.13914	.000	.4708	1.1253
			DD	.31116*	.12381	.033	.0200	.6024
		SD	LR	-.79808*	.13914	.000	-1.1253	-.4708
			DD	-.48691*	.09421	.000	-.7085	-.2653
		DD	LR	-.31116*	.12381	.033	-.6024	-.0200
			SD	.48691*	.09421	.000	.2653	.7085
23.7	Viability, gestationand financing of Governmentprojects	LR	SD	.95192*	.14068	.000	.6211	1.2828
			DD	.37615*	.12518	.008	.0817	.6705
		SD	LR	-.95192*	.14068	.000	-1.2828	-.6211
			DD	-.57578*	.09525	.000	-.7998	-.3518
		DD	LR	-.37615*	.12518	.008	-.6705	-.0817
			SD	.57578*	.09525	.000	.3518	.7998
23.8	Regulatory regime and investors' confidence	LR	SD	-.65385*	.10496	.000	-.9007	-.4070
			DD	.18384	.09340	.121	-.0358	.4035
		SD	LR	.65385*	.10496	.000	.4070	.9007
			DD	.83768*	.07107	.000	.6705	1.0048
		DD	LR	-.18384	.09340	.121	-.4035	.0358
			SD	-.83768*	.07107	.000	-1.0048	-.6705

Table 4.11c: Q23 Challenges in Implementing RMP–Results through Tukey's HSD								
S/n	**Sub-Components**			**Mean Difference (I-J)**	**Std. Error**	**Sig.**	**95% Confidence Interval**	
							Lower Bound	**Upper Bound**
23.9	HRD capacity and enforcement	LR	SD	.80769*	.16110	.000	.4288	1.1866
			DD	.20668	.14335	.320	-.1305	.5438
		SD	LR	-.80769*	.16110	.000	-1.1866	-.4288
			DD	-.60101*	.10908	.000	-.8576	-.3445
		DD	LR	-.20668	.14335	.320	-.5438	.1305
			SD	.60101*	.10908	.000	.3445	.8576
23.10	Transparent, accountable, efficient and effective regulator	LR	SD	-.86538*	.11739	.000	-1.1415	-.5893
			DD	.39649*	.10446	.000	.1508	.6422
		SD	LR	.86538*	.11739	.000	.5893	1.1415
			DD	1.26187*	.07949	.000	1.0749	1.4488
		DD	LR	-.39649*	.10446	.000	-.6422	-.1508
			SD	-1.26187*	.07949	.000	-1.4488	-1.0749
23.11	Technology, policy and procedural issues	LR	SD	-.78846*	.10248	.000	-1.0295	-.5475
			DD	.52034*	.09119	.000	.3059	.7348
		SD	LR	.78846*	.10248	.000	.5475	1.0295
			DD	1.30880*	.06939	.000	1.1456	1.4720
		DD	LR	-.52034*	.09119	.000	-.7348	-.3059
			SD	-1.30880*	.06939	.000	-1.4720	-1.1456
23.12	Implementation Challenges	LR	SD	-.62500*	.10161	.000	-.8640	-.3860
			DD	.55283*	.09042	.000	.3402	.7655
		SD	LR	.62500*	.10161	.000	.3860	.8640
			DD	1.17783*	.06880	.000	1.0160	1.3396
		DD	LR	-.55283*	.09042	.000	-.7655	-.3402
			SD	-1.17783*	.06880	.000	-1.3396	-1.0160
	*. The mean difference is significant at the 0.05 level.							

The next step was to employ factor analysis on challenges in implementing RMP.

Table 4.11d: Q23 Challenges in Implementing RMP–Results through Factor Analysis			
	Rotated Component Matrix[a]	Component	
A	**CHALLENGES IN IMPLEMENTATION: BUSINESS MODELAND MANAGEMENT**	**1**	**2**
23.6	Creating a sustainable business model for regional development through PPP, State funding or other mechanism	.854	
23.7	Gestation period and viability of the Government's own projects in the wake of tough competition from the private sector which are necessary to generate funds.	.839	
23.9	Enforcement of Regulations in the planning areas in view of lean and thin organization	.825	
23.5	Funding the cost of land acquisition, including the relief and rehabilitation package acceptable to the stakeholders of land	.811	
23.4	Land acquisition process including the dispute resolution, compensation and litigations in view of the resistance from the stakeholders of land	.751	
23.1	Finding funds/ making a budget provision for ultra-high cost Transport Infrastructure like airports, MRTS, New Railway line and railway stations, freight corridor, ISBT etc. finding external development charges very less. Source of funding of essential tr	.608	
23.2	Finding funds/ making adequate budget provisions for the tertiary health care infrastructure, institutes of higher education, health, sports and social infrastructure, convention centres etc. for the region	.429	
	Eigen Value	**4.064**	
	Percentage of variance explained	**33.868**	
B	**CHALLENGES:IMPLEMENTATION: DELIVERY AND REGULATORY MECHANISM**		
23.11	Mechanism for bold or fast policy level initiatives and decision making progressive and citizen friendly rules, regulations, building byelaws to keep up with current trends and technology		.845
23.12	Challenge of delivery in a time bound and transparent manner in the environment of public mistrust, media activism, RTI, judicial activism etc.		.844
23.10	Transparent, accountable, efficient and effective estate office/ regulator		.841
23.8	Regulating the regional level real-estate market for establishing the credibility and winning the investors' confidence		.776
23.3	Frequent intervention by courts and other statutory bodies posing numerous legal challenges and delays		.597
	Eigen Value	**3.554**	
	Percentage of variance explained	**29.620**	
	Cumulative Percentage of variance explained	**63.488**	

Table 4.11d: Q23 Challenges in Implementing RMP–Results through Factor Analysis			
	Rotated Component Matrix[a]	Component	
	Extraction Method: Principal Component Analysis. , Rotation Method: Varimax with Kaiser Normalization, a. Rotation converged in 3 iterations.		
	KMO and Bartlett's Test		
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.832	
	Bartlett's Test of Sphericity	Approx. Chi-Square	2925.124
		df	66
		Sig.	0.000

4.1.10.3 *Challenges in Implementing RMP- Analysis and Results through Factor Analysis*

Factor analysis helped to classify these into two factors explaining 63.488% of the variance **(Table 4.11d)**. These are:

i. *Implementation: business model and management:* The first factor drew up seven items with Eigen value of 4.064, explaining 33.868 % of variance. The items included in this factor are:

- Creating a sustainable business model for regional development through PPP, State funding or other mechanism (.854);
- Gestation period and viability of the government's own projects in the wake of tough competition from the private sector which are necessary to generate funds. (.839);
- Enforcement of regulations in the planning areas in view of lean and thin organization (.825);
- Funding the cost of land acquisition, including the relief and rehabilitation package acceptable to the stakeholders of land (.811);
- Land acquisition process including the dispute resolution, compensation and litigations in view of the resistance from the stakeholders of land (.751);
- Finding funds, making a budget provision for ultra-high cost transport infrastructure like airports, MRTS, new railway line and railway stations, freight corridor, ISBT etc. finding external development charges very less. Source of funding of essential transport infrastructure (.608); and

- Finding funds/ making adequate budget provisions for the tertiary health care infrastructure, institutes of higher education, health, sports and social infrastructure, convention centres etc. for the region (.429).

Addressing challenges in implementing RMP development, the stakeholders accorded highest concern for business model, as private and public sector strengths can singularly or in plurality be utilized for regional development, for economic and social gain. *The research highlighted that regional infrastructure has ultra-high costs and the critical factor for delivery, was finance. Land is another critical ingredient in urban development. Land, if monetized, can become locus for business models around which the stakeholders can coalesce for better self or public benefit.*

Gestation period and viability of the government's own projects in the wake of tough competition from the private sector which are necessary to generate funds was next on priority.After evaluation of the development size and available resources, including manpower and finances etc. the deficit can be identified. Lean and thin organization is a reality today and governments all over must either modernize through smart platforms or perish in comparison with private sector efficiencies and flexible processes.The plan documents necessarily have to be ambitious offering vision, blueprint and roadmap over time frames of 20 to 30 years.

ii. *Implementation: delivery and regulatory mechanism:* The second factor had five items with Eigen value of 3.554, explaining 29.620% of variance. Item wise factor loadings are:

- Mechanism for bold or fast policy level initiatives and decision making progressive and citizen friendly rules, regulations, building byelaws to keep up with current trends and technology (.845);
- Challenge of delivery in a time bound and transparent manner in the environment of public mistrust, media activism, RTI, judicial activism etc. (.844);
- Transparent, accountable, efficient and effective estate office/ regulator (.841);
- Regulating the regional level real-estate market for establishing the credibility and winning the investors' confidence (.776); and
- Frequent intervention by courts and other statutory bodies posing numerous legal challenges and delays (.597).

In urban development delivery is central to implementation which is fraught with challenges. The first identified item in importance was policy initiatives like laws regulations, building byelaws, rules and decision making and incorporation of latest trends and technology. Time lines and transparency in view of media, courts and RTI, emerged as the next important item for making delivery possible. Other critical items are accountable, efficient and effective regulator for regulating the upcoming development and monitoring developed areas. Only then the investors will gain confidence to promote real estate and enduser to purchase the same.

This supports the following hypothesis:

H-1: All the stakeholders strongly believe that the comprehensive regional planning will ensure the effective and efficient development of a region. 1st item of factor 11 was creating a sustainable business model for regional development through public private partnership, state funding or other mechanisms.

The next section 4.1.11 presents analysis on stakeholders' viewpoint in the development process.

4.1.11 Q28 Advantages of Incorporating Stakeholders' Viewpoint in the Development Process (PSA)

4.1.11.1 Stakeholders' Viewpoint in the Development Process-Analysis and Results through Weighted Average

Table 4.12a: Q28 Stakeholders' Viewpoint in the Development Process Results through Weighted Average

S/n	Sub-Components	1	2	3	4	5	WT. Avg.	WT. Rank
28.1	Participatory feeling generated	12	38	75	151	157	403	2
28.2	Development owned by stakeholders	5	22	130	161	115	357	5
28.3	Fear of unknown	5	26	97	226	79	348	6
28.4	Decision making	4	33	89	207	100	366	3
28.5	Ensures rightful dues	5	23	119	175	111	364	4
28.6	Development proposed by stakeholders	14	29	96	118	176	413	1

The results as shown in **Table 4.12a** indicated that development proposed by stakeholders was ranked at number 1 with a score of **413**. Respondents' truly valued that the experience of a participatory feeling generated in case of their viewpoint was incorporated in the development process rankingthis criterion at number two with **403** score on weighted average. This was seen as bottom up approach. *Thus, the development was owned by stakeholders and didn't come as a decision thrust down on them, as a top down approach.* As the fear of unknown seemed to vanish, the stakeholders promoted and supported the concept of planning, as they could base their decision in accordance with information available in transparent manner, which was ranked at number 3 with **366** score.

The findings of this part of the dissertation support the following hypothesis:

H-3: *Stakeholders believe that development through comprehensive regional planning is better than development through integrating separately developed sub-regional planning areas has been accepted.*

4.1.11.2 Stakeholders' Viewpoint in the Development Process-Analysis and Results through ANNOVA and Tukey's HSD

ANOVA **(Table 4.12b)** was performed to understand whether there exists a significant difference in the means of LR, SD and DD regarding advantages of incorporating stakeholders' viewpoint in the process. They seemed to concur on the merit of development owned by stakeholders. They further supported proposition to conquer fear of unknown and consequent decision making, because it begets and ensures rightful dues. They majorly agreed on all but two, thus the results do not indicate a significant difference in perception of three groups of stakeholders.

Table 4.12b: Q28Stakeholders' viewpoint in the development process
Results through ANOVA

S/n	Sub-Components	Sum of Squares	df	Mean Square	F	Sig.
28.1	Participatory feeling generated	15.865	2	7.933	7.191	.001***
		474.324	430	1.103		
		490.189	432			
28.2	Development owned by stakeholders	.726	2	.363	.429	.652

		363.967	430	.846		
		364.693	432			
28.3	Fear of unknown	.372	2	.186	.259	.772
		308.718	430	.718		
		309.090	432			
28.4	Decision making	3.457	2	1.729	2.170	.115
		342.483	430	.796		
		345.940	432			
28.5	Ensures rightful dues	3.417	2	1.709	2.088	.125
		351.904	430	.818		
		355.321	432			
28.6	Development proposed by stakeholders	15.237	2	7.618	6.592	.002**
		496.929	430	1.156		
		512.166	432			
*** Significant at .1 percent levels, ** Significant at 1 percent level, * Significant at 5 percent level						

Results of Tukey's HSD (Table 4.12c) indicated that four components were completely non-significant for all three groups of stakeholders. These are: (i) Development owned by stakeholders, (ii) Fear of unknown, (iii) Decision making and (iv) Ensures rightful dues. *Thus, all three groups agreed that incorporating stakeholders' viewpoint in the process, (PSA) is critical for development.* Only for two items that is (i) Participatory feeling generated and (ii) Development proposed by stakeholders there was a difference of opinion amongst the groups.

Particularly alarming is the approach of SD, while incorporating stakeholders' viewpoint in the regional development, seemed to block the tendency of LR and DD to participate and become partner in development. These two important components are (i) Participatory feeling generated-stakeholders feels involved not alienated because they have participated in the process and (ii) Development proposed by stakeholders: as the proposal includes stakeholders' suggestions and requirements the regional plan and development becomes the stakeholders' proposal. *This tendency of SD against LR and DD is detrimental towards stakeholders' healthy participation in development.*

The findings support the following hypothesis:

***H-2**: Participation of Stakeholders and incorporating their shared vision and expectations in planning is critical for development.*

Table 4.12c: Q.28 Stakeholders' Viewpoint in the Development Process Results through Tukey's HSD

S/n	Sub-Components	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
28.1	Participatory feeling generated	LR	SD	-.53846*	.17838	.008	-.9580	-.1189
			DD	-.11761	.15873	.739	-.4909	.2557
		SD	LR	.53846*	.17838	.008	.1189	.9580
			DD	.42086*	.12078	.002	.1368	.7049
		DD	LR	.11761	.15873	.739	-.2557	.4909
			SD	-.42086*	.12078	.002	-.7049	-.1368
28.2	Development owned by stakeholders	LR	SD	.14423	.15626	.626	-.2233	.5117
			DD	.08914	.13904	.797	-.2379	.4162
		SD	LR	-.14423	.15626	.626	-.5117	.2233
			DD	-.05509	.10580	.861	-.3039	.1937
		DD	LR	-.08914	.13904	.797	-.4162	.2379
			SD	.05509	.10580	.861	-.1937	.3039
28.3	Fear of unknown	LR	SD	.00000	.14391	1.000	-.3385	.3385
			DD	-.06109	.12806	.882	-.3623	.2401
		SD	LR	.00000	.14391	1.000	-.3385	.3385
			DD	-.06109	.09744	.805	-.2903	.1681
		DD	LR	.06109	.12806	.882	-.2401	.3623
			SD	.06109	.09744	.805	-.1681	.2903
28.4	Decision making	LR	SD	.15385	.15158	.568	-.2026	.5103
			DD	-.05998	.13488	.897	-.3772	.2572
		SD	LR	-.15385	.15158	.568	-.5103	.2026
			DD	-.21383	.10263	.094	-.4552	.0276
		DD	LR	.05998	.13488	.897	-.2572	.3772

Table 4.12c: Q.28 Stakeholders' Viewpoint in the Development Process
Results through Tukey's HSD

S/n	Sub-Components	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
			SD	.21383	.10263	.094	-.0276	.4552
25.5	Ensures rightful dues	LR	SD	.26923	.15365	.187	-.0921	.6306
			DD	.08428	.13672	.811	-.2373	.4058
		SD	LR	-.26923	.15365	.187	-.6306	.0921
			DD	-.18495	.10404	.178	-.4296	.0597
		DD	LR	-.08428	.13672	.811	-.4058	.2373
			SD	.18495	.10404	.178	-.0597	.4296
25.6	Development proposed by stakeholders	LR	SD	-.60577*	.18258	.003	-1.0352	-.1764
			DD	-.24507	.16247	.288	-.6272	.1370
		SD	LR	.60577*	.18258	.003	.1764	1.0352
			DD	.36070*	.12363	.010	.0699	.6515
		DD	LR	.24507	.16247	.288	-.1370	.6272
			SD	-.36070*	.12363	.010	-.6515	-.0699
	*. The mean difference is significant at the 0.05 level.							

4.1.12 Combined Ranking of Components by Stakeholder through Weighted Average

All respondents rated following components with higher priority scores on weighted average: (i) Overall well planned rather than hap-hazard, growth, (ii) Well designed and professionally constructed infrastructure with modern technology, (iii) Infrastructure index, (iv) RMP enables technical sound and balanced growth and services, (v) Lack of awareness and education, (vi) Transparent, accountable, efficient and effective regulator and (vii) Development proposed by stakeholders.

The region-cities of India, even after six decades of independence, at the best can offer only haphazard development, fragmented infrastructure or sporadic utility services. With growing level of expectations, these find echo in the combined ranking of components by all three stakeholders groups through weighted average scores. Smart infrastructure, tech-savvy utility infrastructure through parameters of planned development wins the top most priority.The government needs to gear up to deliver transparent, accountable, efficient

and effective processes. The stakeholders feel the ownership of RMP and development as the proposals embrace their suggestions and requirements.

Next in priority are: (i) Provision for high economic activity, (ii) Transport infrastructure, (iii) Ease of doing business, (iv) RMP promotes business, trade and industry and garner stakeholders' support, (v) RMP enables bigger development, better business, bigger return, (vi) Corruption, pressure, resistance and vested interest, (vii) Technology, policy and procedural issues and (viii) Participatory feeling generated.

Also accorded high priority were trade, profit, business or opportunities through components of SME, IT, SEZ, IT and industrial parks, retail, services and manufacturing sector for economic development through ease of doing business.Transport is important for business and work areas. The government needs to gear up to withstand pressure from vested interest groups.They have to ensure mechanism for bold and fast policy level initiatives for better decision making. At the same time, progressive & citizen friendly rules, regulations and build byelaws to keep up with current trends. Only then the stakeholders will feel involved and not alienated.

Coming at next priority are (i) More employment opportunities, (ii) Trunk line for services, (iii) Average per capita income, (iv) Clear jurisdiction breeds easy maintenance at less cost and regulatory comfort, (v) Long procedures, delay, red-tapeism and multi-agency, (vi) Implementation challenges and (vii) Decision making.

It was only once the citizen emerged from basic necessities of living and work environment, minimal governance and personal participation that the stakeholders expressed wish for remaining requirements like employment opportunities, jobs and average per capita income. It is for the first time, that the concern for timely delivery made an appearance for issues like: long procedures and delay in finalizing the regional master plans and development projects in a time bound manner; red-tapeism and involvement of multi-agencies. Regional integrated planning would bring down duplication of efforts, bring clarity about the jurisdictions and responsibilities of various development/ regulatory agencies/authorities and thus reduce the overall cost and time of creation.

All respondents valued infrastructure and economic environment within folds of planned development as parameter of accelerated development. Capacity building was considered essential for both citizens and the government sector. Favoritism under pressure or consideration is detrimental to development and the day of transparent, accountable,

efficient and effective government processes has dawned. Participation is a concept which cannot be written off and shall open all doors to development.

4.1.13 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) **(Table 4.1.13 a-e)** has been conducted to check the composite reliability and average variance explained (AVE) for the factors considered for feasible vision to ascertain whether these can be taken for further analysis. CFA has been conducted to check whether or not these factors are correlated, and which items load onto and reflect which factors (Thompson, 2004). The results indicatethat composite reliability was more than 0.70. Hence, all the items have been retained for further analysis. Composite reliability is computed by squaring the sum of loadings and then dividing it by the sum of squared loadings plus the sum of error terms (Werts, Linn and Joreskog, 1974). A composite reliability of 0.7 is sufficient for research; the same interpretation as used. (Nunnally, 1978).

Composite reliability for both the factors of design was greater than 0.80. It was 0.817 for (i) Design (intangible) of RMP: Dynamics of strategic enterprise and was 0.820 for (ii) Dynamics of creative design and enterprise. AVE was 0.54 for (i) Design (intangible) of RMP: Dynamics of strategic enterprise and was slightly low for (ii) Dynamics of creative design enterprise it was 0.413. However, this is an important factor and on the basis of composite reliability, this has been included for further analysis.

The composite reliability for (iii) Tangible infrastructure: Smart utility services and for (iv) Basic human facility were 0.846 and 0.832. The AVE both the factors was 0.579 and 0.554 respective. Thus, both these infrastructure factors have been retained for further analysis.

Composite reliability for (v) Indicators: Quality of living environment was 0.858 and for (vi) Quality of working environment, it was 0.811. AVE is 0.508 for (v) Indicatrs: Quality of living environment and was 0.520 for (vi) Quality of working environment. Thus, it met both criteria of composite reliability and was more than 0.70 and average variance extracted was more than 0.50. Thus, these were included for further analysis.

Composite reliability for (vii) Regional versus local development: Amplifying governance factor was 0.826 and it was 0.833 for (viii) Benefits to stakeholders other than government. Average variance extracted for (vii) Regional versus local development: amplifying governance was 0.50 and for (viii) Benefits to stakeholders other than

government it was 0.626. Thus, all these eight factors were considered for designing a framework with Structural equation modeling.

Composite reliability for (ix) Barrier/hindrances to development: Approvals human and procedural interventions are 0.859 and for (x) Infrastructure: Financial and project structuring was 0.790. AVE for first factor was 0.552 and for second it was 0.561. Thus, these factors were included for analysis.

Composite reliability for (xi) Challenges in implementing RMP development was conducted and CR value was 0.897. For (xii) Delivery and implementation, average variance extracted was 0.563 and 0.618 respectively.

Table 4.1.13a:Q15 Design (Intangible) Component of RMP - Confirmatory Factor Analysis						
		Factor Loadings	Error		CR	AVE
		1	2			
A	**DESIGN (INTANGIBLE) OF RMP: DYNAMICS OF STRATEGIC ENTERPRISE**					
15.7	Better return on Investment – Appreciation of the land/ property value due to better planning, utilization of land resources, and faster development of the region.	0.857		0.266		
15.9	Opportunities and environment for creating Intellectual Capital and Innovation-like Knowledge city, Research, Development and Management Institutions, incubation centres to inculcate Agricultural , white revolution, and animal husbandry etc.	0.787		0.381		
15.10	Safety and security- provision for more secure and safe environment	0.753		0.433		
15.4	Taking along the stakeholders, i.e. the land owners, developers and end users, in conceiving the regional plan by making it a participative approach with inbuilt respect for stakeholders' aspirations	0.481		0.769	0.817	0.538
	Eigen Value	2.774				
	Percentage of variance explained	27.742				
B	**DESIGN (INTANGIBLE) OF RMP - DYNAMICS OF CREATIVE DESIGN ENTERPRISE**					
15.1	Overall well planned rather than hap-hazard, growth-with well placed Residential, Industrial, Commercial, institutional, Green and transport Land usage etc.		0.824	0.321		
15.5	Provision for high economic activity- Business opportunities in say services sector, SME, manufacturing, industrial, IT, retail & trade etc.(SEZ, IT Parks, Industry Park)		0.773	0.404		
15.2	Provision for balanced Demographics–planned population distribution after taking into consideration - density, Sex ratio, presence of all age groups i.e. children can find education, job & lifestyle opportunities, pre thought for differently-abled, poor or deprived persons to ensure equal opportunities to one and all.		0.637	0.607		
15.3	Beautiful Urban Architecture – good looking, aesthetical, well landscaped with good architecture planning, street picture & city scape.		0.562	0.682		
15.8	Incorporation lifestyle expressions – like hotels, clubs, Pubs, Multiplexes, Shopping Malls, multi-gyms, green space, amusement parks, high-rise buildings, outlets for food, beverage, shopping and entertainment. etc.		0.500	0.750		
15.6	More employment opportunities and job creation.		0.497	0.753	0.802	0.413
	Eigen Value		2.703			
	Percentage of variance explained		27.031			
	Cumulative Percentage of variance explained		54.773			

Table 4.1.13b Q.16 Infrastructure (Tangible) Components of RMP - Confirmatory Factor Analysis

		Factor Loadings		Error	CR	AVE
		1	2			
A	**TANGIBLE INFRASTRUCTURE: SMART UTILITY SERVICES**					
16.1	Planning and Provision for Infrastructure- infrastructure precedes the development after better design, modern technologies and professional construction.	0.809		0.346		
16.2	Planning and Provision of Transport Infrastructure - Highways, expressway, roads, railways, container services, domestic and International Airport facility and connectivity with public transport, buses, taxies, rickshaws, metro etc .	0.788		0.379		
16.3	Planning and Provision of trunk line for Services- Power grids, electricity supply, telephone, cable, internet, water supply, rain drainage, sewerage systems, sewage treatment, solid waste management etc.	0.761		0.421		
16.4	Planning and Provision for Socio- cultural-health and sports Infrastructure – Theaters, art galleries, dispensaries, hospitals, sports facilities, community centres, crèches, night shelters and public conveniences etc.	0.663		0.535	0.846	0.579
	Eigen Value		2.504			
	Percentage of variance explained		31.294			
B	**TANGIBLE INFRASTRUCTURE: BASIC HUMAN FACILITY**					
16.8	Provision for large regional markets –Central business districts, commercial shopping, wholesale trades, bulk material markets, vegetable, grain, fruit markets, farmers mandis and hawkers etc.		0.801	0.358		
16.7	Care for environment and sustainability- Better preservation of the local ecological environment, i.e. natural drainage system, forests, lakes, ponds, flora and fauna through the proper planning of the larger areas of surrounding towns.		0.773	0.402		
16.6	Better provision for affordable housing for all categories		0.703	0.506		
16.5	Planning and Provision for school / higher/ professional education opportunities- universities, engineering/ medical/ law/ MBA institutions etc. Also including polytechnics, vocational training, industrial training institutions, skill development centers etc.		0.697	0.514	0.832	0.554
	Eigen Value		2.471			
	Percentage of variance explained		30.882			
	Cumulative Percentage of variance explained		62.175			

Table 4.1.13cQ. 17 Indicators as Measures of the Development- Confirmatory Factor Analysis

		Factor Loadings		Error	CR	AVE
		1	2			
A	**INDICATORS: QUALITY OF LIVING ENVIRONMENT**					
17.6	Average Availability/ consumption of other resources - Water per day per head,	0.883		0.220		
17.10	Availability of Hospital beds – say per 1,00,000 population	0.769		0.409		
17.2	Average commute/ travel time in the city,	0.724		0.476		
17.4	Average Per Capita income,	0.698		0.513		
17.8	Literacy rate, quality of education and skill development- say seats in educational institutes per 1,00,000 population, Teacher-student ratio etc.	0.640		0.590		
17.7	Average Per Capita expenditure /Average Cost of living– Rentals, transport, food, essential commodities, entertainment, medical care, schooling, etc.	0.508		0.742		
	Eigen Value	3.253			0.858	0.508
	Percentage of variance explained	32.533				
B	**INDICATORS: QUALITY OF WORKING ENVIRONMENT**					
17.3	Ease of doing business in region: Govt. Policies, approvals, sanctions, permissions etc.		0.813	0.339		
17.1	Infrastructure Index - Roads, Water, sewage, drainage, Gas Pipelines, Fibre Optic Backbone per unit area etc.		0.765	0.415		
17.9	Number of Job Opportunities per 1,00,000 population in secondary and tertiary sectors like IT, Film, Manufacturing, Government, Tourism etc., Rate of Un-employment, Average salary etc.		0.653	0.574		
17.5	Availability and cost of energy per head – Fuel, electricity, gas/ LPG		0.641	0.589	0.811	0.520
	Eigen Value		2.528			
	Percentage of variance explained		25.284			
	Cumulative Percentage of variance explained		57.817			

Table 4.1.13d: Q.18 Regional versus Local Development- Confirmatory Factor Analysis						
		Factor Loadings				
		1	2			
A	**REGIONAL VERSUS LOCAL DEVELOPMENT: AMPLIFICATION OF GOVERNANCE FACTOR**					
18.5	RMP enables cost effectiveness vs. integrated small areas into regions	**0.793**		0.371		
18.4	Legal supply of land enables easy enforcement and regulation	**0.763**		0.418		
18.3	Defined parameters enables transparencyand citizen friendly approvals	**0.716**		0.487		
18.2	RMP enables bigger development, better business, bigger return	**0.693**		0.520		
18.1	Clear Jurisdiction breeds easy maintenance at less cost and Regulatory comfort.	**0.513**		0.737	**0.826**	**0.500**
	Eigen Value	**2.600**				
	Percentage of variance explained	**32.501**				
B	**REGIONAL vs. LOCAL DEVELOPMENT: BENEFITS TO STAKEHOLDERS OTHER THAN GOVERNMENTS**					
18.7	RMP enables Technical sound and balanced growth and services		0.825			
18.8	RMP promotes business, trade and industry and garner stakeholders' support		0.822			
18.6	RMP enables connectivity and accessfor opening up of hinterland		0.723		0.833	0.626
	Extraction Method: Principal Component Analysis.		**2.357**			
	Rotation Method: Varimax with Kaiser Normalization.		**29.466**			
	a. Rotation converged in 3 iterations.		**61.968**			

Table 4.1.13e: Q19 Barrier/ Hindrance to RMP and Development-Confirmatory Factor Analysis

		Factor Loadings				
		1	2	Error	CR	AVE
A	**BARRIERS: APPROVALS: HUMAN and PROCEDURAL INTERVENTIONS**					
19.1	Lack of Awareness &education of stakeholders regarding the benefits of the development through regional planning.	**.857**		0.266		
19.8	Pressure from vested interest groups, political and business hype associated, including the resistance by the forces benefiting from corruption, which continuously hamper the success of any regional planning & development	**.807**		0.349		
19.3	Long procedures and delay in finalizing the regional master plans and development projects in a time bound manner. Red-tapeism and involvement of multi- agencies.	**.686**		0.529		
19.2	Forced to take a piecemeal approach rather that an approach of regional comprehensive planning for the entire region and development thereof.	**.677**		0.542		
19.4	Lack of initiative and participation from the stakeholders viz, Government officials, local community - neither involved, committed nor have enough sustaining interest.	**.669**		0.552	0.859	0.552
	Eigen Value		**2.879**			
	Percentage of variance explained		**35.985**			
	Rotated Component Matrix		**Component**			
B	**ARRIERS: INFRASTRUCTURE: FINANCIAL and PROJECT STRUCTURING**					
19.6	Shortage of funds / Private public partnership models with the Government for creating the basic infrastructure required for the planned regional development		**.835**	0.303		
19.7	Escalation of rates by the intermediaries and property dealers through hoax deals and thereby making the projects unviable ab-initio.		**.791**	0.374		
19.5	Transparent and acceptable method of acquiring the land by the Government or the developers that can also be acceptable to land owner at optimum cost.		**.603**	0.639	0.790	0.561
	Eigen Value		**2.006**			
	Percentage of variance explained		**25.077**			
	Cumulative Percentage of variance explained		**61.062**			

Table 4.1.13f: Q. 23 Challenges in Implementing RMP for Development- Confirmatory Factor Analysis

		Factor Loadings		Error	CR	AVE
		1	2			
A	**CHALLENGES IN IMPLEMENTATION: BUSINESS MODELAND MANAGEMENT**					
23.6	Creating a sustainable business model for regional development through PPP, State funding or other mechanism	**.854**		0.271		
23.7	Gestation period and viability of the Government's own projects in the wake of tough competition from the private sector which are necessary to generate funds	**.839**		0.296		
23.9	Enforcement of Regulations in the planning areas in view of lean and thin organization	**.825**		0.319		
23.5	Funding the cost of land acquisition, including the relief & rehabilitation package acceptable to the stakeholders of land	**.811**		0.342		
23.4	Land acquisition process including the dispute resolution, compensation & litigations in view of the resistance from the stakeholders of land	**.751**		0.436		
23.1	Finding funds/ making a budget provision for ultra-high cost transport infrastructure like airports, MRTS, new railway line and railway stations, freight corridor, ISBT etc. finding external development charges very less. Source of funding of essential transport infrastructure	**.608**		0.630		
23.2	Finding funds/ making adequate budget provisions for the tertiary health care infrastructure, institutes of higher education, health, sports & social infrastructure, convention centres etc. for the region	**.429**		0.758	0.897	0.563
	Eigen Value	**4.064**				
	Percentage of variance explained	**33.868**				
B	**CHALLENGES IN IMPLEMENTATION: DELIVERY AND IMPLEMENTATION MECHANISM**					
23.11	Mechanism for bold or fast policy level initiatives & decision making progressive & citizen friendly rules, regulations, building byelaws to keep up with current trends and technology		**.845**	0.286		
23.12	Challenge of delivery in a time bound and transparent manner in the environment of public mistrust, media activism, RTI, judicial activism etc.		**.844**	0.288		
23.10	Transparent, accountable, efficient and effective estate office or regulator		**.841**	0.293		
23.8	Regulating the regional level real-estate market for establishing the credibility and winning the investor's' confidence by		**.776**	0.398		
23.3	Frequent intervention by courts and other statutory bodies posing numerous legal challenges and delays		**.597**	0.644	0.888	0.618
	Eigen Value	**3.554**				
	Percentage of variance explained	**29.620**				
	Cumulative Percentage of variance explained	**63.488**				

4.1.14 Key Requirements, Factors and Parameters of Framework of Development through Regional Master Planning (RMP) *that emerged from Participatory Stakeholder Assessment (PSA): A bottom up approach.*

Man has lived in cities since the dawn of civilization. The cities destruct or expand, technology upgrades, construction methodology evolves or altogether new cities are created to keep pace with challenges of urbanization. With the explosion of urban population, 'The existing Framework of Development' of cities loses its relevance or become outdated. Tian Li (2008) concludes that a simplistic approach cannot solve all problems; urban areas require a comprehensive analysis combining the merits and problems from social, political and economic perspectives. Thus, key to creation of million plus cities is development with perspective of regional framework. The forceful incorporation of cities into global systems has in turn also imposed stress on urban-regional policy capacity, within such domains as land use and zoning, urban design and building bylaws, finance, public infrastructure and services, and community and social planning [Porter (2001); Scott et al. (2001)].

Clearly a need was established for evolving a comprehensive and a symphonized strategic framework for regional approach to planning through "Participatory Stakeholder Assessment" (PSA), respecting their expectations. The first objective of the study was to *identify the key requirements, factors and parameters for regional master planning (RMP).*

Robinson (2011) emphasizes an urgent contemporary need for thinking across different urban experiences. The key elements- (i) Design (intangible) components of RMP, (ii) Infrastructure (tangible) components of RMP, (iii) its indices as measure of development, (iv) relative advantages of regional development as compared to local planning; were flagged to all three categories of stakeholders Land Resources (LR): land owners and land assemblers, (b) Supply Drivers (SD) like developers and government and (c) Demand Drivers (DD) like buyers and investors of property. The responses were analyzed with ANOVA and Tukey's HSD. For identifications of principal components, thepreferences and prioritization of all three categories of stakeholders recorded for development at a macro level were analysed through factor analysis. Thus following key requirements, factors and parameters of framework of development through regional master planning emerged from Participatory Stakeholder Assessment (PSA) detailed as bottom up approach in Table **4.14.**

Table 4.14: **Key Requirements, Factors and Parameters of Framework of Development through Regional Master Planning emerged from Participatory Stakeholder Assessment (PSA)**

12 Factors	Items/ Components
Factors-1 Q15 Design (Intangible): Dynamics of Strategic Enterprise	Return on Investment: Prime Focus on better planning, utilization of land and resources for the land and property value appreciation. (0.857); Intellectual Capital and Innovation: Opportunity and environment through creationof knowledge city, research, development and management institutions, ad incubation centres to inculcate agricultural, white revolution, and animal husbandry (0.787); Safety and security (0.753); Taking along the stakeholders: a participative approach to development with inbuilt respect for stakeholders' aspirations (0.481).
Factors-2 Q15 Design (Intangible): Dynamics of Creative Design & Enterprise	Planned development with dynamic mix of Residential, Industrial, Commercial, institutional, Green so that transport is convenient. (0.824); Economic enterprise: business opportunities through SEZ, IT Parks, Industry Park and in a concoction of business in services sector, SME, manufacturing, industrial, IT, retail and trade. (0.773); Equitable environment and opportunity: distributed demography, balanced development (education, job and lifestyle) and sensitized approach. (0.637); Urban Architecture and city scape: Integrated urban design, architecture and landscaped for high aesthetics (0.562); Lifestyle expressions: zestful and lively environment through hotels, clubs, Pubs, Multiplexes, Shopping Malls, multi-gyms, green space, amusement parks, high-rise buildings, food, beverage, shopping and entertainment outlets. (0.5); Employment opportunities: Job creation. (0.497).
Factors-3 Q16 Infrastructure (Tangible): Smart Utility Services	Overall Infrastructure: Well designed and professionally constructed Infrastructure with modern technology should precede development. (0.809); Transport Infrastructure: Connectivity through Highways, expressway, roads, railways, container services, domestic and international airport facility and connectivity with public transport, buses, taxies, rickshaws, metro. (0.788); Utility Infrastructure: Trunk lines for utility services say Power grids, electricity supply, telephone, cable, internet, water supply, rain drainage, sewerage systems, sewage treatment, solid waste management. (0.761); Social Infrastructure: Socio- cultural-health- sports Infrastructure and public conveniences, sports, health, theaters, art galleries, dispensaries, hospitals, community centres, crèches, night shelters and public conveniences etc. (0.663).
Factors-4 Q16 Infrastructure (Tangible): Basic Human Facility	Large regional markets: say Central business districts, commercial shopping, wholesale trades, bulk material markets, vegetable, grain, fruit markets, farmers mandis and hawkers (0.801); Environment and sustainability: Preservation and ecological environment like natural drainage system, forests, lakes, ponds, flora and fauna (0.773); Affordable housing for all (0.703); and Educational infrastructure: Provision through say school / higher/ professional education opportunities- universities, engineering/ medical/ law/ MBA institutions, polytechnics, vocational training, industrial training institutions, skill development centers etc. (0.697).

Table 4.14: **Key Requirements, Factors and Parameters of Framework of Development through Regional Master Planning emerged from Participatory Stakeholder Assessment (PSA)**

12 Factors	Items/ Components
Factors-5 Q17 Indicators: Quality of Living Environment:	Availability and consumption of resources: like water (0.883); Health Infrastructure: like availability of Hospital beds (0.769); Commute and travel time (0.724); Per Capita income (0.698); Literacy rate, quality of education and skill development- say seats in educational institutes (0.64); and Per Capita expenditure and Cost of living– Rentals, transport, food, essential commodities, entertainment, medical care, schooling, etc. (0.508).
Factors-6 Q17 Indicators: Quality of Working Environment	Ease of doing business: Say Govt. Policies, approvals, sanctions, permissions. (0.813); Infrastructure Index - Roads, Water, sewerage, drainage, Gas Pipelines, Fibre Optic Backbone per unit area etc. (0.765); Jobs in secondary and tertiary sectors: Job Opportunities like IT, Film, Manufacturing, Government, Tourism etc., Rate of Un-employment, Average salary etc. (0.653); and Availability and cost of energy: Like fuel, electricity, gas/ LPG (0.641).
Factors-7 Q18 Regional vs. Local :Amplification of Governance Factor	RMP enables cost effectiveness: viability and Identification of infrastructure projects through long term innovative modes, allocation on saved scarce state funds to other deserving demands (0.793); Easier compliance, enforcement and regulation: Enables legal supply of land with known land uses and values, preventing legal complications. Serving public benefit vs. interest of the smaller areas/ groups (0.7630); Transparency and citizen friendly approvals: through defined parameters, procedural simplifications and resource allocations (0.716); RMP enables bigger development, better business, bigger return: with appreciation of land value, increased business velocity and improvement in the living standards (0.693); and Clear Jurisdiction breeds easy construction and maintenance at less cost: with time saving, regulatory comfort and pinpointed responsibility. (0.513).
Factors-8 Q18 Regional vs. Local : Benefits to Stakeholders other than Government	RMP enables technical sound and balanced distribution of services: like basic infrastructure, electric power, potable water, public health services and trunk infrastructure (0.825); RMP promotes business, trade and industry: garner stakeholders' supportfor RMPthroughbigger returns. (0.822); and RMP enables connectivity and access: for opening up of hinterland and the regional planning be preferred over local planning, even at its implementation would require more financial resources. (0.723).
Factors-9 Q19 Barriers: Approvals: Human and Procedural	Lack of Awareness andeducation of stakeholders regarding the benefits of the development through regional planning. (.857); Pressure from vested interest groups, political and business hype associated, including the resistance by the forces benefiting from corruption, which continuously hamper the success of any regional planning and development (.807); Long procedures and delay in finalizing the regional master plans and development

Table 4.14: **Key Requirements, Factors and Parameters of Framework of Development through Regional Master Planning emerged from Participatory Stakeholder Assessment (PSA)**

12 Factors	Items/ Components
Interventions	projects in a time bound manner. Red-tapeism and involvement of multi- agencies. (.686); Forced to take a piecemeal approach rather that an approach of regional comprehensive planning for the entire region and development thereof. (.677); and Lack of initiative and participation from the stakeholders viz, Government officials, local community - neither involved, committed nor have enough sustaining (.669).
Factors-10 Q19 Barriers: Infrastructure: Financial and Project Structuring	Shortage of funds / Private public partnership models with the Government for creating the basic infrastructure required for the planned regional development (.835); Escalation of rates by the intermediaries and property dealers through hoax deals and thereby making the projects unviable ab-initio. (.791); and Transparent and acceptable method of acquiring the land by the Government or the developers that can also be acceptable to land owner at optimum cost. (.603).
Factors-11 Q23 Challenges: Implementation: Business Model and Management	Creating a sustainable business model for regional development through PPP, State funding or other mechanism (.854); Gestation period and viability of the Government's own projects in the wake of tough competition from the private sector which are necessary to generate funds. (.839); Enforcement of Regulations in the planning areas in view of lean and thin organization (.825); Funding the cost of land acquisition, including the relief and rehabilitation package acceptable to the stakeholders of land (.811); Land acquisition process including the dispute resolution, compensation andlitigations in view of the resistance from the stakeholders of land (.751); Finding funds, making a budget provision for ultra-high cost transport infrastructure like airports, MRTS, new railway line and railway stations, freight corridor, ISBT etc. finding external development charges very less. Source of funding of essential transport infrastructure (.608); and Finding funds, making adequate budget provisions for the tertiary health care infrastructure, institutes of higher education, health, sports and social infrastructure, convention centres etc. for the region (.492).
Factors-12 Q23 Challenges: Implementation: Delivery and Regulatory Mechanism	Mechanism for bold or fast policy level initiatives and decision making progressive and citizen friendly rules, regulations, building byelaws to keep up with current trends and technology (.845); Challenge of delivery in a time bound and transparent manner in the environment of public mistrust, media activism, RTI, judicial activism etc. (.844); Transparent, accountable, efficient and effective estate office/ regulator (.841); Regulating the regional level real-estate market for establishing the credibility and winning the investor's' confidence by (.776); and Frequent intervention by courts and other statutory bodies posing numerous legal challenges and delays (.597).

The findings of this part of the dissertation support the proposed objective that:

Objective O-1: *To identify the key factors or parameters of development of regional master planning (RMP).*

Thus, twelve factors of broad strategic framework for development through regional master planning were evolved through Factor Analysis.

4.2 FEASIBLE VISION OF REGIONAL MASTER PLANNING THROUGH PARTICIPATORY STAKEHOLDER ASSESSMENT (PSA).

Urban fabric comprises of a spectrum of stakeholders and different voices were likely to arise, resultantly. Analysis of Variance (ANOVA) was used to test the significance of differences among three categories of stakeholders. Results reflected that there were perceptible differences among all three groups.

However, Tukey's HSD, broadly helped in detecting and pinpointing the location of variance, unearthed that respondents were seen to agree or disagree for various components on need basis. The results revealed that the aspiration of LR to safeguard his interest in land, SD for profit motive and DD to best buy land, at least expense. The government could not conceal its balancing struggle to maintainits identity as a developer, a facilitator or as a regulator. After selling his land or making project as partner from land monetization, LR can transform into SD or DD and thus has a tendency to agree with either SD or DD on need basis. Thus, the vocation of farmer may undergo transformation at urban fringes of development and may look for home or business opportunities. As a result, LR can become DD and potential customer for SD. Similarly, SD and DD can unite against LR's tendency to hold on to the past.

Thus, it was felt important to understand how the respondents- LR, SD and DD responded as a group. In the results of the tests above, some acceptable meeting point had to be discovered so that planned development can become a reality through mutually complementary synergy. The next objective was *to evolve a broad strategic framework of regional development using regional master planning for achieving accelerated development. The last and most crucial step of research defined.*

Logically the executable blueprint of development of any region-city should materialize from the regional plan documents. However, this practice is not being systematically followed by the stakeholders, especially the government and the urban planning authorities. This in turn, often results into a definite gap and sometimes an inconsistency, ambiguity, conflict or even a contradiction between the regional plan and the region-city development execution plan. This may not even be associated with ground reality. The main reasons for poor collaboration and coordination is that there are varied stakeholders in the government and multiplicity of planning and implementation agencies, with often ambiguous and overlapping jurisdictions, powers, functions and responsibilities. These agencies could vary from government to public sector undertakings (PSU) to public private partnerships (PPP), joint venture (JV) partner to private sector or even the end user. Moreover, the land resources were often fragmented and financial options unclear and foggy, offering unequal opportunities or on the contrary gains to different stakeholders.

The blue print of planning and executable implementation must be comprehensive, inclusive, begin with the land assembly and include all the infrastructure components, utility services, urbanized land for human facilities, housing, commercial, work and living places and assure due care for environment and water management. Transparency and clarity would bring down incidents of hoax and rate escalation by intermediates, thereby containing or even reducing the associated risk factors. The shortage of financing is a concern exhibited by respondents and only a sound project structuring and financial modelling at regional level is the key to attaining the goals of balanced urban development.

Key elements of region-city design, its parameters and a broad time frame, say 30-50 years, should ideally be contained in the plan documents. There is a need to formulate an executable format like regional project report, which should meticulously provide the details of phasing and the development quantum based on economic, resources, population studies or any regional specific factor. Ideally the government may not be made responsible for shouldering the entire responsibility, rather stakeholder partnering in the development process can impart a great value. This can be observed, from the stakeholders promoting and according high concern and attention to the business model and management under implementation of region-cities. The respondents in a way are suggesting that business model can be an innovative method to attain the goals of

urbanization and not necessarily only an investing proposition for government. The regional plan document thus becomes a fulcrum for executable project format and can be premeditated in numerous permutations or combinations, and if properly formulated, can be source of overall economic and social gains and development and can be prescribed to state government as a prescriptive framework. It is important to utilize the strengths of private as well as the public sector, singularly or in plurality, and can partner in the general economic success and profitability of the region. If conceptualized professionally, the model of management can also be a gainful or money making component of regional development rather than seen merely as an OPEX intensive affair. The core government functions can continue in government domain, the plan funds can be utilized for critical infrastructure and social objectives of government. The same has been explained **(Figure 4.2).**

In Regional Frameworks govt. is at the centroid of the model of development , works can be modulated into self-sustaining components and can be considered for outsourcing to private sector on various financial, revenue models like public private partnership, viability gap funding or entirely to private sector through the medium of licensing or approval .The component can further extend to land making landowners as partners in the development or at least the land pooling scheme. This can take care of any rift arising out of land acquisition process which is the starting point for urbanization **(Figure 4.2).**

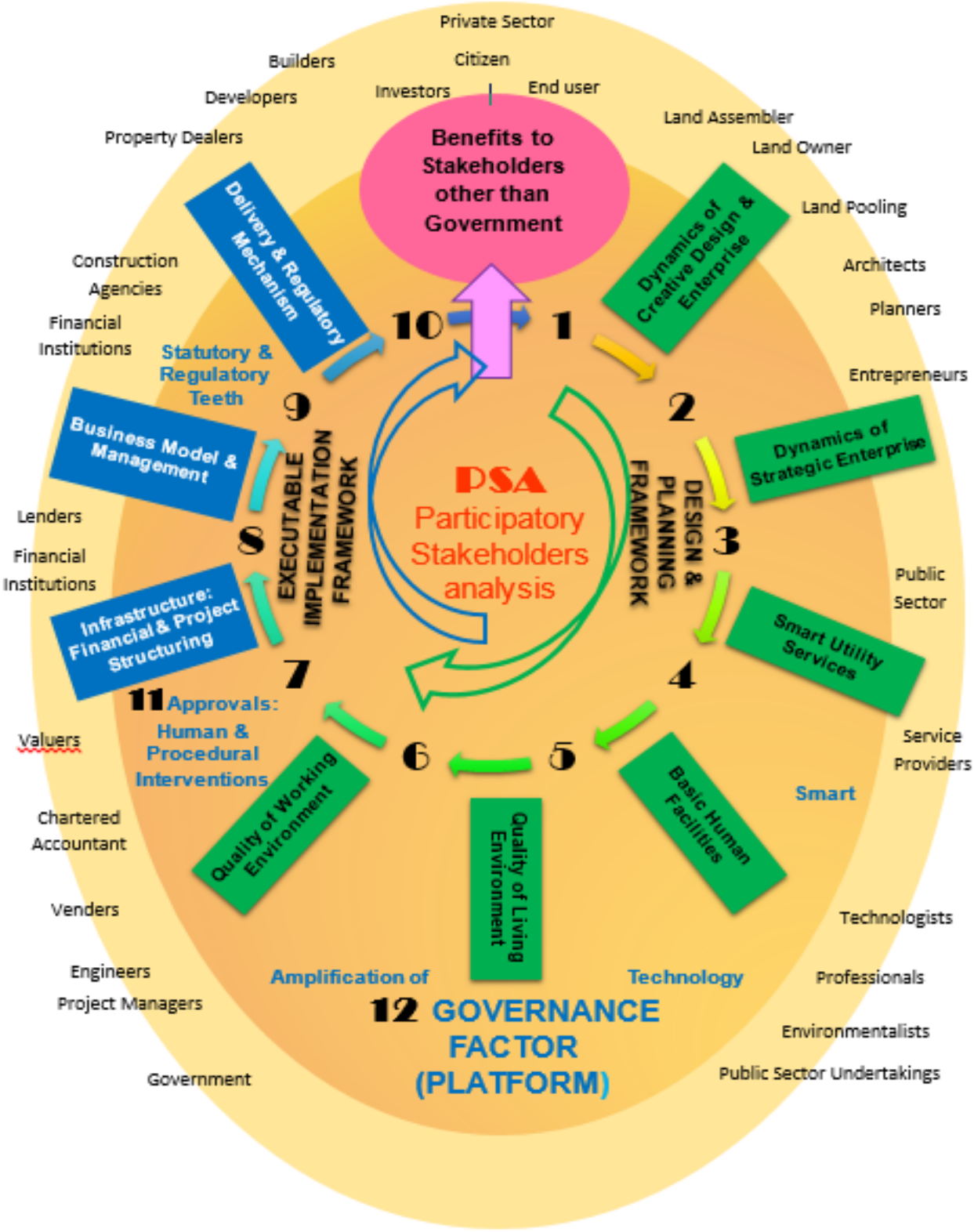


Figure 4.2: PSA CENTERED UNIFIED FRAMEWORK OF DEVELOPMENT ENABLING FEASIBLE VISION OF DEVELOPMENT

4.3 CASE STUDY ANALYSIS IN RESPECT OF THE POLICY FRAMEWORK OF THE SELECTED STATES/ REGIONS OF NORTHERN INDIA

The onus to take initiatives in the sector of urbanization and development falls on the state governments as land is a state subject in India. This is largely dependent on the local policies, vision and frameworks of developments. The present section covers the case study to understand and evaluate the existing policy framework of regions of north India, from the perspective of master or regional planning and development.

The Regions that Broadly fell under the Selection Criteria:

1. North India: National Capital Region (NCR)
2. Delhi: National Capital Territory of Delhi (NCT Delhi)
3. UP: Uttar Pradesh sub Region NCR (UP region)
4. Haryana: Haryana sub Region NCR (Haryana region)
5. Punjab: Greater Mohali Regional Planning Area (RPA)2008-2058

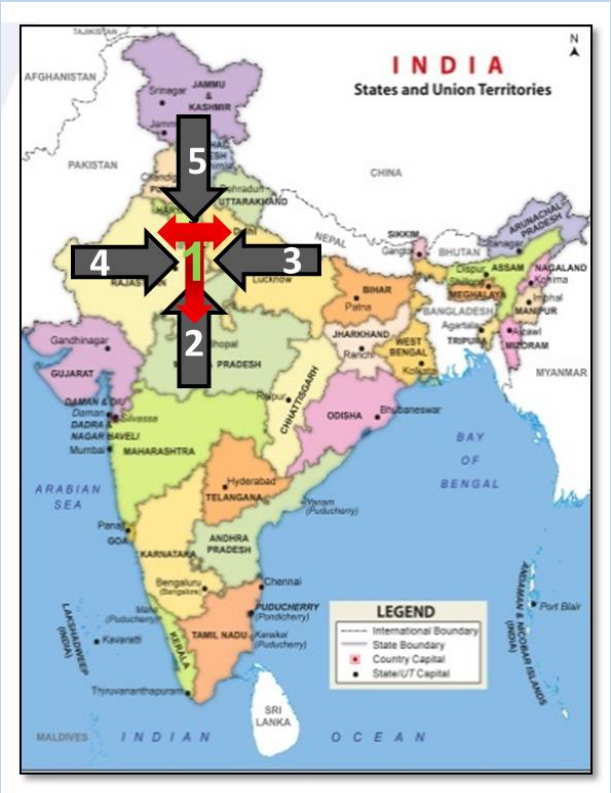


Figure 4.3: Case Study of the Regional Locations

The criteria for the selection of regions for the case studies were:

- Nearby regions of north India with respect to greater Mohali;
- Nearly similar climatic conditions e.g. hot and dry summers with monsoon rains and harsh cold winter conditions;
- Similar geographical features, like generally flat lands with fertile alluvial soils. Which were largely agrarian prior to urbanization;
- Availability of at least some regional framework document or documents; and

- Some development or urbanization had taken place in these regions based on above documents.

4.3.1 Exploration of Case StudyRegions:

The case study regions were broadly explored on following aspects, which was laid down earlier in the research design at section 3.6 :

The basic information about the region includes location, area, geography and climate. The tabulated data is placed at *Annexure-I.* Components of the framework of planning were also studied for the purpose of framing the questionnaire for this research**.**

The Acts, byelaws and policy guidelines and plan documents of states were studied in detail. The list of the governing acts, laws rules and policies etc. are placed at *Annexure-II.* Plan Documents of all case studies were also studied. These documents are prepared by the governments under the planning statutes. The format of plan documents of Uttar Pradesh (UP), National Capital Region (NCR) and Haryana NCR were somewhat similar. The possible reason could be that all the regions were being monitored by National Capital Region Planning Board (NCRPB). National Capital Territory (NCT) of Delhi and documents of these regions are prepared under the umbrella of NCRPB. Greater Mohali Area Development Authority (GMADA) follows a different format. Majority of the regional documents were seen to have varied formats although subsets and sub clauses had similar factors. These components were seen to have varied aims and objectives with different degree of focus and intensity. Different political or bureaucratic environment, varied laws and regulations are likely to result in diverse types of development although the region may have similar location, geography and ethos. Although these areas had begun from common roots, over a period of time have drifted into diverse development philosophies.

Thus, it should be possible to identify relative success factors and gaps between the developments of these regions.

4.3.2 Method used for Case Study Analysis

The main PSA questionnaire was framed based on literature review. The analysis through PSA gave 12 most relevant factors for development through regional master planning. The emerged factors were administered to experts and administrators through a

questionnaire. This questionnaire is placed at *(Annexure-III).* The administrators and experts of these regions, in the past or in the present capacity, dealing with the master plan and development documents were asked to evaluate and compare the factors evolved through the research with their existing plan documents and implementation procedure. This helped in eliciting the "top down" response.

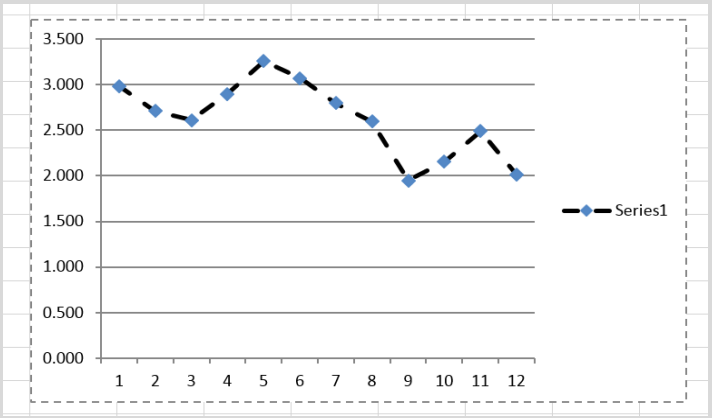
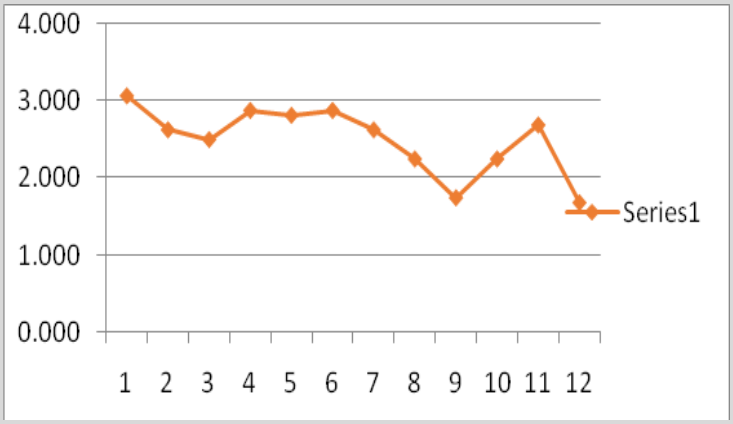
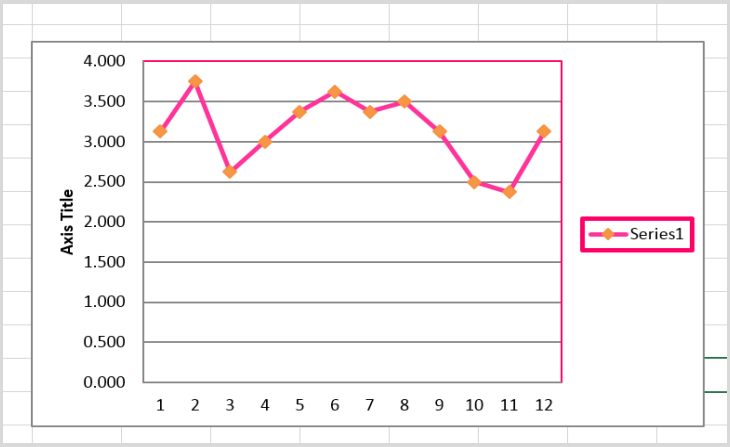
The twelve evolved factors of development through regional planning using PSA are:

1. Design (Intangible): Dynamics of Strategic Enterprise;
2. Design (Intangible): Dynamics of Creative Design and Enterprise;
3. Infrastructure (Tangible): Smart Utility Services;
4. Infrastructure (Tangible): Basic Human Facility;
5. Indicators: Quality of Living Environment;
6. Indicators: Quality of Working Environment;
7. Regional vs. Local: Amplification of Governance Factor;
8. Regional vs. Local: Benefits to Stakeholders other than Government;
9. Barriers: Approvals: Human and Procedural Interventions;
10. Barriers: Infrastructure: Financial and Project Structuring;
11. Challenges: Implementation: Business Model and Management; and
12. Challenges: Implementation: Delivery and Regulatory Mechanism.

The valuation of the policy framework of the specified regions were undertaken with the authentic inputs from the high level policy makers of the level of secretaries, additional secretaries, joint secretaries and planners at government of India level and principal secretaries, secretaries and administrators at the state level. View-point were also taken from chief town planners and other planners, from Town and Country Planning Organization (TCPO), from Delhi Development Authority (DDA) and also from planners from states. They had all worked extensively in the area of urbanization and were well versed and conversant with their respective regions either at national level or at the state level in the past or in the present capacity.

4.3.3 Inputs from the High Level Policy Makers

The administrators and experts dealing with the master plan and framework development documents were asked to evaluate and compare their existing plan documents and its implementation with 12 factors of development, evolved through the research. They were asked to specify any other additional relevant factor essential for the framework or for its implementation and regulation.

5 point Likert Scale		ALL STATES
	12 Factors of Development	
5 point Likert Scale		DELHI
	12 Factors of Development	
5 point Likert Scale		HARYANA
	12 Factors of Development	

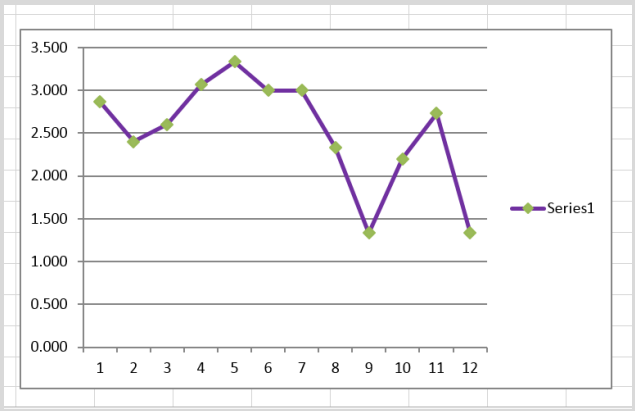
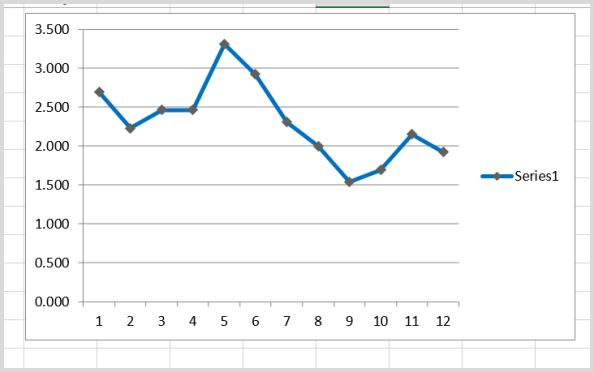
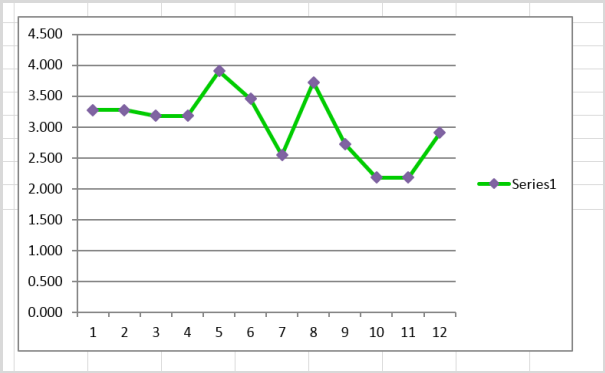
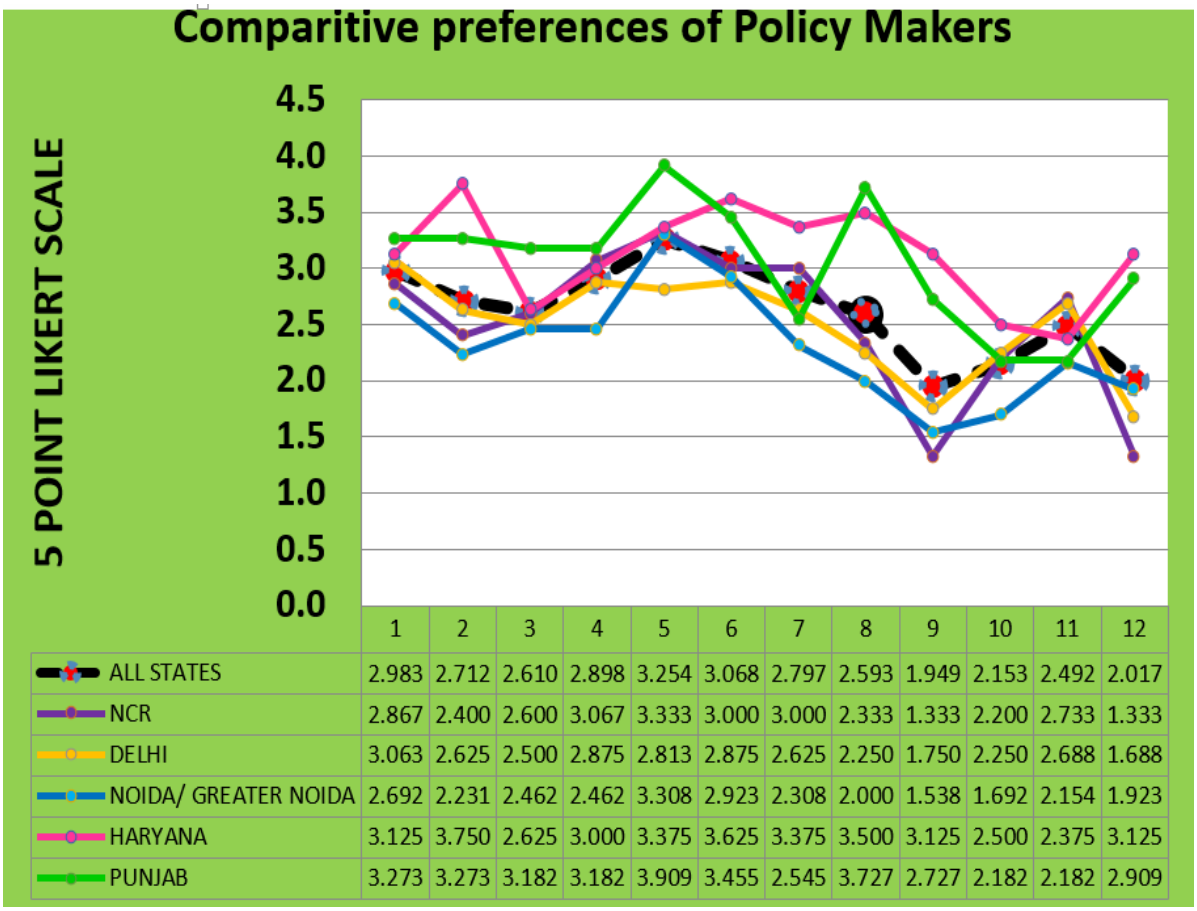
5 point Likert Scale		NCR
	12 Factors of Development	
5 point Likert Scale		NOIDA- GREATER NOIDA
	12 Factors of Development	
5 point Likert Scale		PUNJAB
	12 Factors of Development	

Figure 4.4a: Region wise Case Study Analysis of Administrators and Planners

In all, 53 responses were received and the data were analyzed to understand the Success factors as well as identify the gaps between the regional master plan framework and their actual implementation process. A five point Likert scale was used and the data were analyzed through weighted average to assess the strengths and deficiencies of the five identified regions. The results are shown through **Figure 4.4.** This captured the existing

process, the regional plan documentation and implementation on the basis of 12 factors evolved through PSA.



	1	2	3	4	5	6	7	8	9	10	11	12
ALL STATES	2.983	2.712	2.610	2.898	3.254	3.068	2.797	2.593	1.949	2.153	2.492	2.017
NCR	2.867	2.400	2.600	3.067	3.333	3.000	3.000	2.333	1.333	2.200	2.733	1.333
DELHI	3.063	2.625	2.500	2.875	2.813	2.875	2.625	2.250	1.750	2.250	2.688	1.688
NOIDA/ GREATER NOIDA	2.692	2.231	2.462	2.462	3.308	2.923	2.308	2.000	1.538	1.692	2.154	1.923
HARYANA	3.125	3.750	2.625	3.000	3.375	3.625	3.375	3.500	3.125	2.500	2.375	3.125
PUNJAB	3.273	3.273	3.182	3.182	3.909	3.455	2.545	3.727	2.727	2.182	2.182	2.909

X-Axis -12 Factors of Framework of Development

Y-Axis - Responses of government on 5 point Likert Scale

Black dotted line- Combined response of government for five regions

Colored lines – Individual response of government for five regions wise

Figure 4.4b: Case Study Analysis of Administrators and Planners on Weighted Average

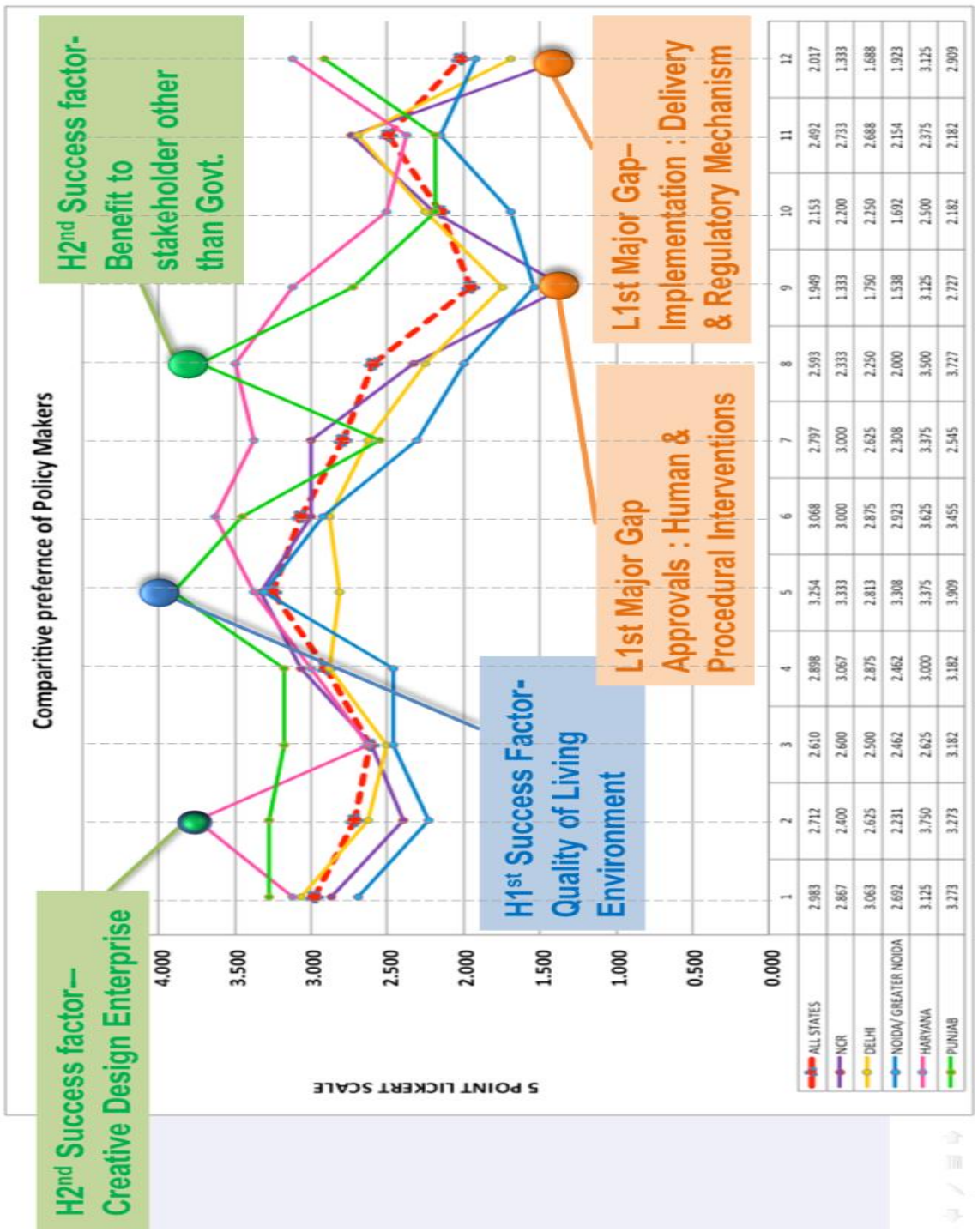


Figure 4.5: Success/Gaps in Regional Plan Documents against 12 Factors

The administrators and planners had not only validated the factors that had emerged from this research but after comparing these with their existing development frame works had pointed out strengths and weakness in the present model **(Figure 4.5).** These are as follows:

(i) Quality of living environment (ii) Dynamics of creative design and enterprise and (iii)

Benefits to stakeholders other than government surfaced as strong factors in the plan documents of the states of Punjab and Haryana.

- (i) Approvals: human and procedural interventions to the development Projects, and (ii) Implementation: delivery and regulatory mechanism emerged as the weakest link in the majority of the case study regions.

The administrators also emphasized that while the design factors were reasonably good in the existing system, it was the executable implementation that required more sustained working. Although some implementation methodologies do exist, on the basis of which development does take place. But the processes are fragmented, and multi-agency driven. These should be linked with business models at macrolevel, comprising project structuring, financial models with relative strengths of public sector, private sector and preferably both, possibly by accepting stakeholders as partners. *The administrators' endorsed the factors that emerged from the present research. They further emphasized that there is a need in India to definitely develop a formal frame work of executable implementation for the development through regional master planning (RMP).*

The administrators further stressed that the call of the day is to program the emerged factors like *smart utility services, basic human facilities, governance factor, creative design, human and procedural intervention, implementation etc. through state of art modern technologies like e-governance and smart platforms***.** The administrators and planners endorsed that there is definitely a need to connect through technology, the smart-city concept of digitization, citizen services and governance under smart regional umbrella.

The administrators also emphasized that regional master plan (RMP) requires "Teeth to be truly effective" i.e. RMP should have strong statuary and regulatory provisions to be able to take legal, financial or criminal action against government or non-government defaulters without undue political interference.

Major Success Factors	Medium Success	Medium Gaps	Major Gaps
5. Indicators: Quality of living environment	6.Indicators: Quality of working environment	10.Infrastructure: Financial & project structuring	9.Approvals: Human & procedural interventions
2.Deign (intangible): Dynamics of creative design and enterprise	7.Regional vs. local: Amplification to governance factor	11.Challenges: Business model & management	12.Implementation: Delivery & regulatory mechanism
8.Regional vs. local: Benefits to stakeholders other than governments		3.Infrastructure (tangible): Smart utility services	
		4.Infrastructure (tangible): Human facility	

Table-4.16: Framework Factors with Success/Gaps through Case Study Analysis

Objective O-2: *Identification of critical success and gaps through case studies by comparing the successes and failures of the existing plan and development documents of various states.*

The twelve factors that emerged through the PSA were endorsed by related experts and planners. Thus, Objective 2 was achieved.

4.4 Concluding Remarks:

Weighted average was applied on key questions to gauge as to how the stakeholders were behaving together as a group. This yielded the ranking of the components of regional development. ANOVA test laid bare the behavior of stakeholders belonging to the three groups LR, SD or DD with a premise to detect a similarity in their perception or differences in their viewpoints. Tukey's HSD test pinpointed the location of variance by detecting an alliance between individual groups LR, SD or DD and their stance to safe guard personal interest of group. Then the factors or parameters of development of regional master planning were evolved through participatory stakeholder assessment (PSA). Common factors acceptable to all three categories of stakeholders as their feasible vision were evolved. The emerged model was the feasible vision of stakeholders' and reflected their optimal expectation from regional development. These results can be seen as a view point from "grass root" level.

The Factors of Development were tested on administrators and planners through a questionnaire. The administrators endorsed the factors emerged from this research. They highlighted those factors which are reasonably good in some regions and could be adopted by regions that are weak on such aspects. Some gaps exist in the policy initiatives, laws or acts, as also in the implementation framework of most of the Indian States. They also helped to understand through their assessment of case studies about the success factors or gaps and require substantial attention for improvement. These results can be seen as a "top down" rationalizing of grass root level input.

After negotiating on the road map assumed in Chapter 3, the Research Design, the stage was set to build the entire journey given above as a model: "*The Strategic Framework of Development"* which is discussed in Chapter 5.

CHAPTER 5
CONCLUSION

The present chapter aimed to recollect and compile the overall findings of the various phases of the study. A summary of the research with the main findings have also been presented. Revisiting the objectives was essential to understand whether the purpose and aim of the research has been achieved. Research contributions and implications of the study have been listed. Limitations of the study have been pointed out. Recommendations based on the study have also been presented. Finally, the study throws light on the future directions.

Section 5.1 begins with the summary of results, while major research findings of the study are covered in the **Section 5.2. Section 5.3** covers revisiting of the objectives of the study and to observe how these have been achieved? **Section 5.4** focuses on the most important objective of the study, viz. to evolve '*A Broad Strategic Framework of Development through Regional Master Planning (RMP), using Participatory Stakeholder Assessment (PSA)*' thereby achieving accelerated development in the process. **Section 5.5** covers the implications of the study. Limitations of the study are presented in **Section 5.6.** Any study is incomplete without giving the recommendations for further study. These are presented in **Section 5.7.**

5.1 Summary of the Results

The literature review, the primary research and the case studies yielded an understanding about a number of important issues regarding urbanization, planned development, the status of stakeholders, and regional development documents, laws and policies.There is a rapidly growing body of literature, which indicates that the present frameworks of localized development are losing their relevance. The research has further strengthened the idea that urbanization is an engine of growth for nation building and the planned development plays an important role in achieving economic and social objectives for which the regional and master plans are important tool, Planning Commission, Government of India (2007-2012).

The stage, that is urbanization, is populated with actors, of diverse hues and shades harboring contrasting and competing expectations from planned development. On these grounds, the stakeholders' involvement in the formulation of these development

documents is vital. The literature abounds with examples that, if the stakeholders are not actively consulted in the decision making developmental process, they would feel marginalized and alienated. Alienation can lead to suspicion and delay which may ultimately result into resistance. This may also have a serious consequence of rural-urban divergence or divide, while what the policy maker should actually have aimed at was the universal synergy. Government and authorities all over the world, fueled by the statuary acts or provisions have their own interpretation of what is meant by the development and what stakeholders actually want and how these can be aligned? This is more or less a closed door program.

With the escalating level of awareness, the stakeholders harbor increasing quantum of personal aspirations from the planned development, and if they are deprived of the same they have no qualms of raising in open protest against the development agenda of the authorities. Stakeholders' resistance has the power to stall even a well conceptualized, sustainable, practical, statutorily compliant, technically sound, and financially viable Master or a Regional Plan. Facing resentments and resistance the governments all over are likely to be convinced about seeking stakeholders' participation in the development and even are likely to welcome them as partners. This is supported with adequate evidence from the study, where farmer friendly land pooling policies were used by the governments for the purpose of planned development without facing much resistance from the stakeholders.

A sensitized and consultative approach is critical for the ease of development. This is with a premise that when the stakeholders are aligned with the goals and objectives of the government, they can help to create gains in terms of efficiency, effectiveness, implementation and the attainment of envisioned objectives. Delhi Development Authority (DDA) is actively seeking stakeholders' feedback on their planning document, under an addition in the process laid down in their statutory act, which is available at http://dda.org.in/ddanew/pdf/planning.

While trying to collate and pour the personal choices of diverse stakeholders, collected through PSA, into a common development mould of a feasible vision a number of important research findings emerged from the empirical analysis. This section gives a complete overview of the research giving an integrated picture of the inputs received from the stakeholders through PSA and the results through the case studies on plans, policies and planning documents. These were collated to finally evolve a broad strategic

framework of development through regional development using participatory stakeholder assessment (PSA) for achieving accelerated development. The major findings are given in a descriptive manner in the next section 5.2.

5.2 MAJOR FINDINGS OF THE STUDY

5.2.1 Major Findings of Research Through PSA

- The Stakeholder *favored return on investment* with focus on planning and utilization of land as a resource. This was followed by creation of opportunity and innovation in a knowledge economy. *Thereby "enterprise", rather than land-use which was prevalent in that timeframe had come forth as the most desired strategy from analysis of intangible design factor*.
- At one time, during the period of unrest and turmoil in Punjab, safety and security was the foremost concern, for taking decision while selecting locations for business spaces, educational institutes and living. This factor was *accorded rather lower order, clearly indicating that public memory is rather short* and as the peace and secured environment returned to Punjab, after two long decades of militancy, the *factors relating to the security environment were seen to be taken for granted*.
- Preference for the well-planned cities with well-placed usages and economic enterprise, clearly specified an overall underlying central concept in which "*economic activity leading to business opportunist"* was considered an important doctrine by the stakeholders. Also preference was accorded *to"the dynamic mixed-land use" and this along with "the equitable environment" emerged as key considerations for design."*
- The stakeholders' preference was in contrast to the prevalent method of land use planning and land parcelization, as could be understood from the case study analysis.
- The established method of design seemed outdated to the stakeholders and does not seem to serve this purpose adequately. *Thus, the existing framework of Regional Development seemed to be losing its relevance in the present scenario and becoming outdated*.
- The respondents were clearly extracting components of tangible infrastructure and

collating them under the "*smart utility services with better designs, smarter technologies and professional construction."*

- The key components for RMP were the *"state of art infrastructure, including smart utility services as well as the roads and transport infrastructure with public mobility."*
- This was followed by the *"Socio-cultural-health-sports infrastructure and public conveniences."*
- A shift in respondents' perception was observed that the, infrastructure like sports, health, social, theaters, art galleries, crèches, night shelters and public conveniences should be "*created in the initial phases of development, concurrent with essential city infrastructure"*. Thus,stakeholder's opinion is different from the prevalent implementation frameworks of the state governments, where construction of such facilities *are deferred in the timeline of city development* either for the lack of financial wherewithal or expectation of reaping post-development healthier returns.
- Considering the large gap in options for public mobility and last mile connectivity, concern for "*transport and essential infrastructure"* were accorded priority over housing and social infrastructure.
- The results also exhibit that the days of well-off have arrived and *"higher benchmark, were now being desired by the stakeholders, for what was currently being interpreted as minimum basic facilities. "*The infrastructure considered basic facility in their opinion included*:* central business district (CBD), shopping malls, farmers' mandis, whole-sale trade markets, bulk material markets, vegetable, grain and fruit markets, street vendors and hawkers.
- *Basic human instinct to preserve the environment, nature sustainability and ecological factors* like natural drainage system, forests, lakes, ponds, flora and fauna, were *accorded high priority* as a planning component of regional development by the stakeholders. This was rather "*intuitive and contradictory to the wasteful practices of the past.*"
- Stakeholders, expressed their preference for these *human facilities via regional (rather than city) blue print of macro development for better integration of areas*

outside of cities, where eco-sensitive regions actually exist. This was also evident from case study of Greater Mohali study area.

- An unexpected finding was that the affordable housing and educational infrastructure was accorded relatively lower rating. The result indicated that in stakeholders' perception "*adequate quantum of housing and educational infrastructure was already available*". This opinion may be a reflection of a large number of uninhabited dwelling units and vacant seats in educational institutes, which indicate a likely surplus obtained out of the past or existing policy framework of the government.

- It indicated that many stakeholders already owning their first property, were now in the *process of purchasing a second or third asset as an investment option.* These products are then available to others stakeholders on affordable hire or lease. It also hints at a decline in the buoyancy of the real estate market or depression or quasi- recession in the property market with in that time frame.

- Entrepreneurs were considering *investing into educational institutes more as business opportunities rather than as a public service* to the society. Supply was found to exceed the demand, which was contrary to the deficit existing a decade back, and therefore was a little low in respondents' wish list andaccorded lower priority. On these grounds, the *stakeholders' wish list stood expanded to commercial and lifestyle outlets and concern for sensitive issues like environment*.

- Stakeholders' aspirations of living *a better quality of life as an outcome of planned development*is particularly related to water resources, sanitation and health care etc. The other major elements extracted by the respondents' related to *the ease of doing business covered* government policies, approvals, sanctions, permissions etc. *For business facilitation, last mile connectivity like roads, water, sewerage, drainage, gas pipelines, fiber optic backbone per unit area etc. were also found vital for accelerated development*.

- Results from the indicators as parameter of development highlighted that the stakeholders had highest concern for two occupancies where they spent their maximum time, i.e., *quality living space and quality work place. Availability of resources like water, sanitation, healthcare had been given due importance near home. While ease of doing business and infrastructure index was accorded*

importance at the workplace.

- At workplace, respondents accorded next priority to high per capita income and job opportunity *justifying criticality of economic factors for developmental index.*
- The *quality and time taken for travelling between the living and work places was accorded high ranking in both the environments*. *Comfort and duration of travel time* was important for all ages as working population or otherwise the children, the aged and housewives, favored to spend less time for travel.
- An attitudinal change was evident in the mindsets of the Indian citizens where *quality, not the cost of work and living environment, was taking first precedence*.The citizens had preferred higher quality infra development as compared to low costs and skeletal facility scenario. The stakeholders seemed be ready to pay the price for it.
- The research factors from the regional versus local development highlight that the stakeholders decisively *segregated the core government functions accrued under the governance factor,* clearly demonstrating their strong concern. This factor needs *amplification for betterment of the region and public at large.*
- Another concern expressed by the respondents *was a wish for government to select cost effective development strategy*. Planned growth of the entire region looked more viable than the development of small individual pockets. This could be possible by identifying bigger infrastructure projects with *innovative business/revenue models*. It would then be possible for *the state's financial resources to be spared for other pressing and deserving needs.*
- *Because of the regional planning process the regulation of development would be easier and according to the rules*. Respondents felt that, as people would be aware of the land use, it would bring down the violations. The task of government would become that much easier *as legally developed land would reduce violations, thus requiring less regulation and political/court interventions*.
- Stakeholders felt that if government could adopt regional planning process, then the entire land and other resources could be clearly earmarked by them. On these grounds, the approval process could improve, become objective, easier, efficient, transparent, compliant and citizen friendly. *This may not be possible in case*

individual town wise master planning is resorted to, that too in a piece meal fashion.

- The other important research finding of regional versus local development was higher priority expressed for benefits to the stakeholders other than the government. Stakeholders *segregated their personal profits under this factor, clearly demonstrating their individual gains as group affiliations*.
- Provision for basic infrastructure was found to be *technically more feasible, sound and balanced in the integrated planning process, rather than individual towns and localities which may get marginalized with localized preferences, resource* availability and politics. Thus, the stakeholders could hugely gain in electric power, potable water, public health services and trunk infrastructure etc.
- This would promote business, trade and industry ensuring better profits for the stakeholders. *Therefore, the stakeholders clearly promoted and supported the concept of development based on regional planning governed local planning*.
- Better accessibility and connectivity and opening up of hinterlands got priority. This may not be possible in case the individual town wise master planning is resorted to. Therefore, the regional planning should be preferred over local planning, even if its implementation would require more financial resources, especially at the cost of the government.
- The most critical factor that emerged from the question on barriers for an effective regional urbanization and planned development was *approvals: human and procedural interventions. This appeared as an important factor for failure of the Indian system.* Lack of stakeholders' awareness and education apropos the benefits of the development through regional planning, added fuel to fire.
- In stakeholders' perception, the first contact between the government and private sector created *an effervescent and slushy environment for corruption under undue pressure* from political, business and other vested interest.
- The *lengthy procedures devised to prevent such an eventuality were actually exploited for loopholes*, red-tapeism and delay in RMP. These consequently breeds corruption and undue favoritism.
- The approval procedure is further complicated by a multi-agency factor suggesting

that the buyer and investor of property (end-user); and the builder, the developer or the property dealer have to shunt from office to office and from table to table and encounters endless paperwork, formalities, in different formats with various fee structures and legal implications. *Sometimes the circumstances compelled to adopt a piecemeal approach, defeating the regional approach to development.*

- Other critical barrier that emerged from the study was inadequate thought on the *financial and project structuring aspect of the infrastructure component.* Interesting part of the research was that the stakeholders' inputs on the barriers and hindrances *proffered cues for emerging from the abysmal abyss of the delivery challeng*e.
- The project structuring was also found to be a critical factor. *Project structure if conceived methodically, proffers solution to financial modelling, the funding or implementing agencies, the partnering entities, the timelines, the user profile and innovative charges.* Most plan documents are ambitious. At the time of preparation of the development document, it should be seen that *the size of development was in sync with expected population, phasing plan and time lines can be defined in accordance with the available human and financial resources*.
- *The regional plan documents should ideally be converted into planning and development documents and executable implementation format.* This was not being done in a systematic manner and there was definitely a gap there. There were varied and multi-implementing agencies, from government to public sector undertakings (PSU) to public private partnerships (PPP) to private sector and end-user. Land resources were fragmented and financial options were foggy offering unequal opportunities to different stakeholders. *The blue print for implementation of the development plan must be inclusive, must begin with land assembly, and speak about planning, design of infrastructure projects. The utility services, urbanized land for human facilities, housing, commercial, work and living places, sports or recreational requirements and cover care for environment and water*.
- Addressing challenges in implementing RMP development, the stakeholders accorded highest concern for business model and management. *Private and public sector strengths can singularly or in plurality be utilized for regional development for overall economic and social gain.*

- Another finding was that the regional infrastructure which has ultra-high costs and finance is a critical factor for delivery. The land is another indispensable ingredient in the urban planning and management. *Land, if monetized, can become the focus for business models around which key stakeholders can conjoin or unite for better public benefit.*

- Longer gestation period and lower viability of the government's own projects in the wake of tough competition from the private sector has become a serious challenge. The private sector has entered the development domain with a bang, possibly at the cost of government. After evaluation of the development size and available resources, including manpower and finances, the deficit can be identified. Lean and thin organization is the order of the day. *Therefore, the governments must restructure and modernize themselves to compete with the private sector's adaptability, efficiency and flexibility or perish*. In that case the social responsibility would pass to private sector. *The plan documents necessarily have to be ambitious, forward lookingand futuristic offering vision, blueprint and roadmap for time frames of 20 to 30 years or more.*

- *In urban development delivery is the key to implementation, which is fraught with many challenges.* The first identified factor was policy initiatives covering laws regulations, building byelaws, rules and decision making process and incorporation of latest trends and technology. Time lines and transparency in view of over active media, courts, civil society, and vigilance, right to information (RTI) and public in general, were other important retardants factors affecting delivery.

- Other critical factors were *accountable, efficient and effective management for regulating the upcoming development and monitoring the developed areas*. Only then the investors' will gain the confidence to promote the development process and investment in the real estate.

The Regional Plan Documents should converge into Potent Regional Executable Implementation Framework, with Statutory and Regulatory teeth for effective Enforcement, is key to Accelerated Development.

5.2.2 Major Findings of Research: Results from ANOVA Analysis and Tukey's HSD

- ANOVA and post-hoc tests were employed to trace the source of variance. Within *its larger fold, individual group dynamics seemed to come into play.* This exhibited *a tendency of each respondent group to form alliance with the other group to safeguard individual group's interest. This seemed to perform a balancing act against other competing demands.*

- In case of component beautiful urban architecture, *as a market strategy to attract the customers SD attempted to attract both LR and DD* for purchasing property by constructing a pleasing urban picture. After acquisition of undeveloped land, the status of *LR undergoes a transformation being displaced from his living or work place. LR is then likely to search for new home or business and become a potential cash rich customer for SD.*

- All three categories of stakeholders had similar perception regarding lifestyle expression. This was representative of '*Simply being Punjabi*' and reflected the zest and enthusiasm for living life king size, in the greater Mohali region of Punjab. All respondents whole hearted supported that *'Stakeholders' should be consulted* and *made an integral part and parcel of the development planning scenario*.

- *The balancing and self-correcting tendency of a random society living over macro areas against the narrow selfish gains, attempting an equilibrium on competing requirements, complete self-rejection or total acceptance is the beauty of PSA.*

- For infrastructure components of RMP, in the first component LR and DD are seen to be uniting and aligning against the SD for provision of well-designed and professionally constructed infrastructure with modern technology. This finding can be attributed to the fact that *infrastructure precedes the development*. Better design, modern technologies and professional construction are detrimental to SDs' profit motives. Such factors can also compromise pre-launch of projects for prior recovery of costs by builders and developersand are unsuitable for them, but are suitable to LR and DD hence their joint stance against SD.

- LR and DD had similar opinion about infrastructure index and differed from the opinion of SD. Both seemed to *unite against the profit motive of builders, developers and government who wished to buy land at low cost and sell the*

property at maximum profit. The land owners and land assemblers (SD) wanted the value for their land and other stakeholders (LR &DD) wanted to protect their affordability. In case of ease of doing business SD and DD had similar perception against that of LR. Both possibly united against tendency of *LR to hold onto the past and as inertia against change and development.*

- As rationalizing effect there is an alliance between LR and DD for the component of technical sound and balanced growth and services. They seem to unite for the sake of *safeguarding better delivery and express a desire for state of the art infrastructure development* from SD.
- Furthermore, LR SD and DD, all share similar perception, *plugging for RMP to enable high development for better business and better returns*. Better regional planning process would result in appreciation of land value, increased business velocity and improvement in the living standards due to concise planning, optimal allocation and judicious use of resources etc. in the overall regional plan.
- In as far as lack of initiative, interest and non-participation by stakeholders is concerned, the SD group, which comprises of government and builders seem to single handedly resist the tendency of LR and DD to not to participate in development. This was up to then considered as the mainstay of SD. LR and the DD are not converging regarding component of shortage of funds/private public partnership models with the government for creating the basic infrastructure required for the planned regional development. *The role of SD in this component of RMP seems to be that of a mediator attempting to form alliance with LR or DD and compel them to participate in development.*
- In case of implementation challenge of financing and maintaining regional infrastructure, DD was **seen to single** *handedly stand against the alliance between SD and LR and probably against their profit motive*. The direction points towards financing and maintaining regional infrastructure in face of profiteering by private sector. Also LR and DD groups were sharing similar perception regarding *safeguarding their legal interests against frequent interventions by courts* and other statutory bodies posing numerous legal challenges and delays.
- Particularly alarming is the approach of SD, while incorporating stakeholders'

viewpoint in the regional development *to block the tendency of LR and DD to participate and become partner in development*. These two important components are: (i) Participatory feeling generated stakeholders feels involved not alienated because they have participated in the process and (ii) Development proposed by stakeholders: as the proposal included stakeholders' suggestions and requirements the regional plan and development becomes the stakeholders' proposal. *This tendency of SD against LR and DD are detrimental towards healthy and inclusive participation in development process.*

- All respondents valued infrastructure and economic environment within folds of planned development as parameter of accelerated development including time bound delivery. *Capacity building was considered essential for both citizen and government sector.* The day of transparent, accountable, efficient and effective government processes has dawned. *Participation and involvement of stakeholders shall open all doors to fast track and accelerated development.*

5.3 Revisiting the Objectives

As explained in Chapter 3, there was a need to undertake research to evolve a broad strategic framework of development through regional development using participatory stakeholder assessment (PSA) for achieving accelerated development. This needed a concerted effort and several tools and techniques have been applied to achieve the results.

A brief overview of the same is presented in this section along with the objectives and the hypotheses. Objective O-3 To evolve a broad strategic framework of development through regional development using participatory stakeholder assessment (PSA) for achieving accelerated development.

A concerted effort and several tools and techniques were applied to achieve the results. A brief overview of the same is presented along with the objectives and the hypotheses beginning with:

Objective O-1: *To identify the key factors or parameters of development of regional master planning (RMP).*

The related hypotheses have been discussed below:

H-1: All the stakeholders strongly believed that the comprehensive regional planning will ensure the effective and efficient development of a region.

Twelve factors of strategic framework for regional development were evolved through PSA (**Table 4.14).** Factor analysis helped to understand which items had higher loadings and have been assigned to the following items:

- *1st item of Factor 1*: Return on Investment: prime focus on better planning, utilization of land and resources for the land and property value appreciation.
- *1st item of Factor 2*: *Planned development with dynamic mix of residential, industrial, commercial, institutional, and green so that mobility and transport could be convenient.*
- *1st item of Factor 3:* Overall Infrastructure: Well designed and professionally constructed Infrastructure with modern technology should precede development.
- *1st item of Factor 4: Large regional markets: say central business districts, commercial shopping, wholesale trades, bulk material markets, vegetable, grain, fruit markets, farmers' mandis and hawkers.*
- *1st item of Factor 7: RMP enables cost effectiveness: viability and Identification of infrastructure projects through long term innovative modes, allocation on saved scarce state funds to other deserving demands.*
- *1st item of Factor 8:* RMP enables technical sound and balanced distribution of services: like basic infrastructure, electric power, potable water, public health services and trunk infrastructure.
- *1st item of Factor 11: Creating a sustainable business model for regional development through PPP, state funding or other mechanism.*

After identifying factors for development first objective was achieved as under:
Objective O-1: To evolve a feasible vision of the development through the Participatory Stakeholder Assessment (PSA) .

Feasible vision was used to evolve an optimum /feasible vision, from the shared concerns of the stakeholders (PSA). The related hypotheses were:
H-2: Participation of Stakeholders and incorporating their shared vision and expectations in planning is critical for development.

H-3: Stakeholders believe that development through comprehensive regional planning is better than development through integrating separately developed sub-regional planning areas.

The above mentioned items had higher loading values and thus *Hypothesis H-1: All the stakeholders strongly believe that the comprehensive regional planning will ensure the effective and efficient development of a region* has been accepted.
Participation of Stakeholders and incorporating their shared vision and expectations in planning is critical for development.

Stakeholders believe that development through comprehensive regional planning is better than development through integrating separately developed sub-regional planning areas.

Objective O-2: *Identification of critical success factors and gaps through case study analysis.*

This was done by comparing the successes and failures of the existing plan and development documents of various states against the emerged factors, which were also endorsed by related experts and planners.

Acts, bye-laws, policy guidelines and plan documents of states were studied in detail. It was observed that the format of plan documents of Uttar Pradesh (UP), National Capital Region (NCR) and Haryana were somewhat similar. The possible reason could be that all the regions were being monitored by National Capital Region Planning Board (NCRPB). Although the National Capital Territory of Delhi and document of NCRPB are prepared under the umbrella of NCR Planning Board, both and that of Greater Mohali Regional Plan 2008-2058 followed different formats.

Majority of the regional documents were seen to have varied formats although subsets and sub-clauses had similar factors. These components were seen to have varied aims and objectives with different degree of focus and intensity. Different political or bureaucratic environment, varied laws and regulations result in diverse types of development, although the region may have similar location, geography and ethos. Thus, it was possible to identify relative success factors and gaps of these regions. Evaluation and comparison of

the existing plan documents and their implementation with the 12 factors evolved through the research by the administrators and experts helped to provide deeper understanding and relevance of these factors.

The administrators and planners had pointed out the success and gaps in the present model.

(i) Quality of living environment, emerged as the success factors, and strength in the Indian states of Punjab;

(ii) Design (intangible) of RMP emerged as the success factors, and strength in the Indian states of Haryana

(iii) Benefits to stakeholders other than government emerged as the success factors, and strength in the Indian states of Punjab.

Success factors Factor:

Success factors Factor: Quality of living environment: Quality of living condition in Mohali is rated higher by the stakeholders, who have assigned highest position to habitable environment in Mohali. This has been possible as the sectoral grid of Chandigarh was extended into this city, enabling the same neighbor-hood unit. The residential housesare within walk-able distance of educational Institutes, commercial shopping street and social infrastructure. The feather in the cap is the Punjabi bonhomie, culture and lively environment as a bonus.

Success factors Factor: Design (intangible) of RMP: Creative Design enterprise: The stakeholders favor this factor in those area of Haryana surrounding Delhi. This is possibly because the region rightfully analysed the development direction of Delhi and provided avenues of growth to utilize this demand like fruit and vegetable market at Ghannaur, The Rajiv Gandhi Educational Hub in Kundli, Industrial belt in Manesar and golf clubs in Gutrgoan.

Success factors: Benefit to stakeholders other than Govt.: The policy level initiatives, the amendments in periphery policy, the PRTD Act 1995, Notification of Regional and Local Master Plans has enabled the right development environment to incubate. This has benefitted the land resources and they were able to partner in the land pooling projects of the Govt. projects. It has also benefitted the builders and developers who marketed their

real estate . Thus, a number of projects have come up in the planning area and they must have made profit to them and citizen too has gained as they were able to get houses, place for their businesses, and avenue of education for their Children.

Major Gaps:

(i) Approvals: Human and procedural interventions and

(ii) Implementation: Delivery and regulatory mechanism came out as major gaps in majority of the case study regions.

Major Gaps: Approvals: Human and procedural interventions: The Trajectory of the weighted average scores assigned by the administrators and the experts for NCR, Noida and Delhi looked almost similar other than minor deviations. However the weakest link was the approval process for NCR Board. It is for this reason that their regulatory framework is also showing a nose diving tendency.

The administrators opined that the implementation factors needed additional focus. The administrators also emphasized that regional master plan (RMP) required strong statuary provisions for taking legal, financial or criminal action against government or non-government defaulters.

The last and most crucial step of research as defined through the next objective was:

Objective O-3: *To evolve a broad strategic framework of regional development using regional master planning for achieving accelerated development. A* Broad strategic framework was evolved and explained in depth in next **Section 5.4.**

A BROAD STRATEGIC FRAMEWORK OF DEVELOPMENT THROUGH REGIONAL MASTER PLAN USING PARTICIPATORY STAKEHOLDER ASSESSMENT (PSA)

With the explosion of urban population, the existing planning framework documents of regions-cities could no longer remain relevant as metropolitans and polycentric developments have taken a center stage resulting into urban sprawl, ribbon development and unbalanced growth. From literature review, a strong need was felt for evolving *a broad strategic framework of development using regional master planning (RMP) for achieving accelerated development.* The study used *Participatory Stakeholder Assessment (PSA)* and case study analysis to evolve the framework. To get the inputs for the framework from the respondents, a questionnaire was administered to the three categories of stakeholders from the urban mosaic:

i) Land Resources (LR): Land owners and assemblers;

ii) Supply Drivers (SD): Developers and government; and

iii) Demand Drivers (DD): Buyers and investors of property.

In accordance with the research design, an exhaustive study of literature was undertaken and linkages were also established with the primary research. The data was collected and responses were analyzed with the appropriate statistical tools. Twelve factors of development through regional master planning emerged from the PSA. A feasible vision was derived using these twelve factors.

Along with these, the study also tried to identify the factors causing (v) Barrier/ hindrance to RMP and development. The incredible fact was that the barriers actually showed the path to solution in terms of (i) Approvals: Human and procedural interventions and (ii) Infrastructure: Financial and project structuring. (vi) Challenges for RMP and development included (i) Implementation: Business model and management and (ii) implementation: delivery and regulatory mechanism.

These twelve factors identified through the deeper research analysis undertaken, as explained in Chapter4.0, form the main factors of development, as have been highlighted in **Table 4.14**. These were twelve key factors, as identified through the PSA, which are required to be handled with increased impetus, focus and importance for designing an

effective and efficient framework for development to fulfill the aspirations and expectations of the stakeholders.

The second part of the research focused on undertaking a detailed analysis of regional plan documents and state regional development acts of somewhat comparable areas. There was a need to understand the policy makers' perspective which helped in identifying the critical success factors and gaps from the case study evaluation **(Table 4.16)** by administrators and planners and greatly contributed to evolving a frame work of development through regional master planning using regional master planning (RMP) for achieving accelerated development.

The findings of this part of the dissertation support that the following objective O-3 is adequately and satisfactorily achieved (**Figure 5.1).**

Objective O-3: *To evolve a broad strategic framework of regional development using regional master planning for achieving accelerated development. The last and most crucial step of research defined.*

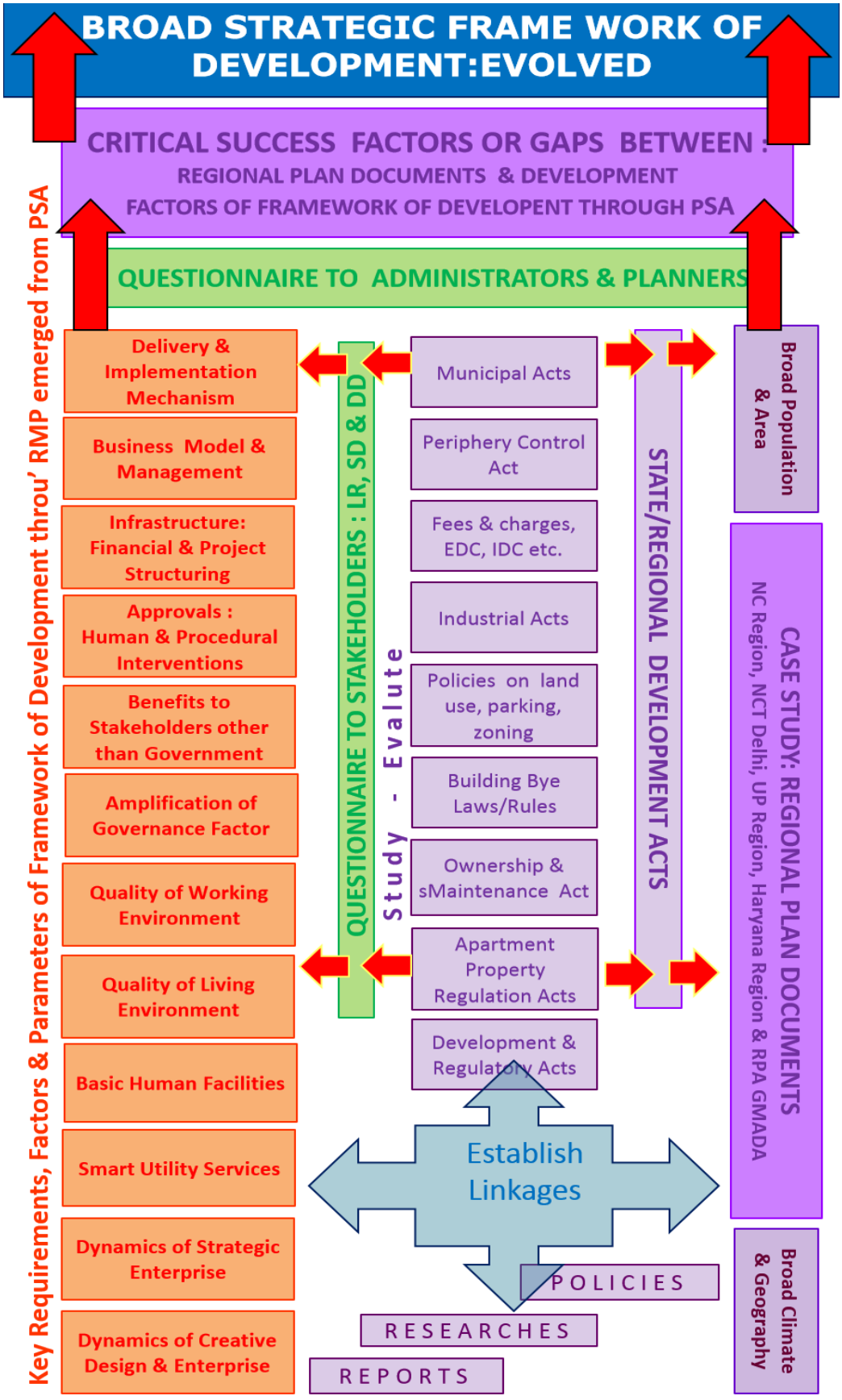


Figure 5.1: A Broad Strategic Framework of Development through Regional Masterplan, using Participatory Stakeholder Assessment (PSA)

The development does take place without regional master plan (RMP), but it is driven by market forces and by the availability of resources. Growth thus achieved is likely to be skewed and the citizen is the ultimate sufferer. The present study has strengthened the idea that urbanization as an engine of growth [Scott, (1988), Ascher (1995), Sievers *et al*. (2005), Salet (2006)]. The findings support that planned development plays an important role in achieving economic and social objectives for which regional and master plan is an important tool [Roy and Ganguly (2009); Sanoff (2000); Kukadapwar (2004)].

As a result it was essential to formulate key requirements, factors and parametersfor new framework of regional development for balanced and sustainable growth and evolve a broad strategic framework of regional development using regional master planning for achieving accelerated development.

The Stakeholders' participation is required for the cause of present and future generations and the stakeholders should not be excluded from the formulation of the development strategy [Gordon & Buck (2005); Goyal (2008); Durai, Upadhyay and Tiwari (2000); Phatak (2011); Chapman (2011)].

Thus evolving a framework of regional development through master planning with stakeholders'inputs was what was called for. The research thus looked at both the aspects, the grass root upwards perception or viewpoint of the stakeholders and then rationalizing the same with the rich planning and implementation experience from the vantage point of administrators and planners, for their perspective and pragmatic inputs, in a top down approach, thereby, imparting a wholesome and balanced texture and consistency to the strategic framework.

5.5 PSA Centered Unified Framework of Development

Logically the executable blueprint of development of any region-city should materialize from the regional plan documents. However, this practice is not being systematically followed by the stakeholders, especially the government and the urban planning authorities. This in turn, often results into a definite gap and sometimes an inconsistency, ambiguity, conflict or even a contradiction between the regional plan and the region-city development execution plan. This may not even be associated with ground reality. The main reasons for poor collaboration and coordination is that there are varied stakeholders in the government and multiplicity of planning and implementation agencies, with often

ambiguous and overlapping jurisdictions, powers, functions and responsibilities. These agencies could vary from government to public sector undertakings (PSU) to public private partnerships (PPP), joint venture (JV) partner to private sector or even the end user. Moreover, the land resources were often fragmented and financial options unclear and foggy, offering unequal opportunities or on the contrary gains to different stakeholders.

The blue print of planning and executable implementation must be comprehensive, inclusive, begin with the land assembly and include all the infrastructure components, utility services, urbanized land for human facilities, housing, commercial, work and living places and assure due care for environment and water management. Transparency and clarity would bring down incidents of hoax and rate escalation by intermediates, thereby containing or even reducing the associated risk factors. The shortage of financing is a concern exhibited by respondents and only a sound project structuring and financial modelling at regional level is the key to attaining the goals of balanced urban development.

Key elements of region-city design, its parameters and a broad time frame, say 30-50 years, should ideally be contained in the plan documents. There is a need to formulate an executable format like regional project report, which should meticulously provide the details of phasing and the development quantum based on economic, resources, population studies or any regional specific factor.

Ideally the government may not be made responsible for shouldering the entire responsibility, rather stakeholder partnering in the development process can impart a great value. This can be observed, from the stakeholders promoting and according high concern and attention to the business model and management under implementation of region-cities. The respondents in a way are suggesting that business model can be an innovative method to attain the goals of urbanization and not necessarily only an investing proposition for government. The regional plan document thus becomes a fulcrum for executable project format and can be premeditated in numerous permutations or combinations, and if properly formulated, can be source of overall economic and social gains and development and can be prescribed to state government as a prescriptive framework. It is important to utilize the strengths of private as well as the public sector, singularly or in plurality, and can partner in the general economic success and profitability of the region. If conceptualized professionally, the model of management can

also be a gainful or money making component of regional development rather than seen merely as an OPEX intensive affair. The core government functions can continue in government domain, the plan funds can be utilized for critical infrastructure and social objectives of government.

works can be modulated into self-sustaining components and can be considered for outsourcing to private sector on various financial, revenue models like public private partnership, viability gap funding or entirely to private sector through the medium of licensing or approval .The component can further extend to land making landowners as partners in the development or at least the land pooling scheme. This can take care of any rift arising out of land acquisition process which is the starting point for urbanization

5.6 Implications of the Study

Soon half of the Indian population would live in region-cities. Therefore, key to urbanization is local development within the regional framework and participation of stakeholders, which would trigger accelerated planned development in the urbanization process. As pointed out in the study, there is also a need to include comprehensive regional framework of implementation within the development framework with adequate regulatory or statutory teeth and resources, which will effectively transpose urbanization and development process on a faster track. The hyper development would then harmonize with vision and plan document. Implementation framework would comprise of approvals: human and procedural interventions which have been identified as major gaps or hindrances. Implementation: delivery and regulatory mechanisms, the other vital gap, requiresan urgent attention. The study also indicates that project structure and financial model is not adequately and appropriately structured today. Business model and management of development does exist, but in fragments. Human facility early in region-city life cycle and smart utility services leading to smarter cities are some of the minimal expectation from the stakeholders' perspective.

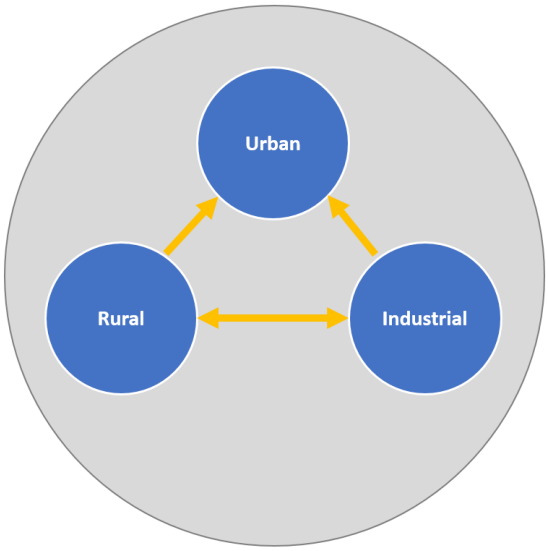


Figure 5.2: Self-Balancing Model of Feasible Development at Macro Level through PSA

A broad strategic framework of regional development through PSA can be a self-balancing model of feasible development at macro level that has ability to enable and facilitate optimal physical, transport, health, education, socio-cultural, recreational, lifestyle infrastructure leading to economic growth with business and employment opportunities which results in congenial living and working environment suitable across the cross-section of society. Suitable mechanism like e-governance or smart platforms can be used to provide transparent and hassle free method of implementation, management, regulation and citizen facilitation. Using business models like land monetization and innovative methods of development and financing by increasing universal acceptability for all stakeholders as partners in development.

Through this PSA centered urbanization frame work it could be possible for a self-correcting mechanism to evolve by itself, which has the capacity to absorb the impetuous from rural and industrial inconsistencies. Thus, the push and pull factor towards urbanization could be utilized for the overall benefit of the society.

The study has rich academic implications, which extends the prevalent methods from mere planning to PSA centered executable implementation framework and along with this, it has some takeaways for all the stakeholders, the government, the architects, the planners, the land owners, the buyers, the builders, the developers and the most important the citizens.

5.6 Limitations of the Study

Like most of the research, any study can hardly be perfect. As such, this study also has few limitations. However, these limitations also present opportunities for the future researchers. One of the limitations of the study was that the majority of the factors identified were either from the literature developed in the west or from the experiences of implementation of regional plans in India. There is very limited academically well-known literature available in India, specifically relating to the greater Mohali region. The present study focused on three types ofstakeholders, viz. land resources (LR): land owners and assemblers; supply drivers (SD): developers and government and demand drivers (DD): and buyers and investors of property.The study was limited to the variables that helped in understanding stakeholders' aspirations and expectations from the planned development and their possible shared feasible vision. Non-availability of exact data was another important limitation. In addition the response rate of the respondents was low, as they were not ready to spend time and fill the questionnaires. To overcome this problem, certain steps were taken, such as visiting the stakeholders personally to collect the data from them.

This improved the response rate to a certain extent. The study results pertained to the stakeholders from northern region of India which would require further refinement for generalization. This study has helped to evolve a broad strategic framework for regional development highlighting the factors of development. This framework may be validated through the case studies of city-regions after implementation of regional planned development. A comparison of region adopting accelerated regional planning with a region passively pursuing it could have added more value. However,there is always limit of time and thus, this could be a scope for future studies.

5.7 Recommendations and Future Scope

The prevailing development frameworks in Indian context of other similar regions can be researched and sifted to refine and enhance the framework evolved through the PSA. Further, case study analysis can be taken up by covering a few specific parameters in greater details. It will help to validate the results further on the basis of case studies. This couldn't be taken up as a part of this study, since the implementation and testing of such policy framework would require a much longer time frame for significant coverage and penetration and thereafter testing and evaluation of the results.

It has also been globally comprehended that urbanization is an engine of growth. Bitter truth is that the Indian region-cities are exceedingly neglected entities today with often inadequate or decaying infrastructure, paltry and irregular utility services, congested or non-existent transportation, outdated processes, inadequate financial resources and technical capabilities with the planning authorities and inequitable standard of living. Thus, Governments are actively thinking of redefining the way the city regions are to be developed, redeveloped or retrofitted.

Future research can relate to expanding the framework of regional development to include framework of implementing in a comprehensive manner, which can be arrived at, as an outcome of the present study. Modern technologies and digital platform for so called "Smart Cities"and how it will change the concept of regional master planning is another area of future research for green field as well as rejuvenation of existing cities in India and even abroad. In terms of a city design smart services, smart transport and smart governance and the interfaces between technological, social, economic governance and digital perspectives can also be another topic of interest. It would be meaningful to further follow-up the evolving cityscapes in view of the policy level initiative taken in the past and the upcoming "Smart City" scheme and study how these could be connected under a smart regional umbrella for a holistic and comprehensive planning and development approach.

Earlier the government centroid model of development was more prevalent which laid more stress on planning, left the implementation framework weak and severely compromised the approval or regulatory functions. This made the delivery vulnerable to area centric governance and policies. PSA centred unified framework of development containing design, planning & executable implementation framework with regulatory & statuary teeth would be better equipped to handle emerging needs of urbanisation as it would be more sensitized to the needs of stakeholder population, both government and people other than government.

Government, semi government, public sector undertakings, private sector, landowners, businessmen, professionals, financial institutions or even the end users would lend their individual strengths to the model of development. This process would be further supported by prior project structure, financial modelling, business and management

model. The delivery and regulatory mechanism being an intrinsic component would further consolidate the stance of executable implementation.

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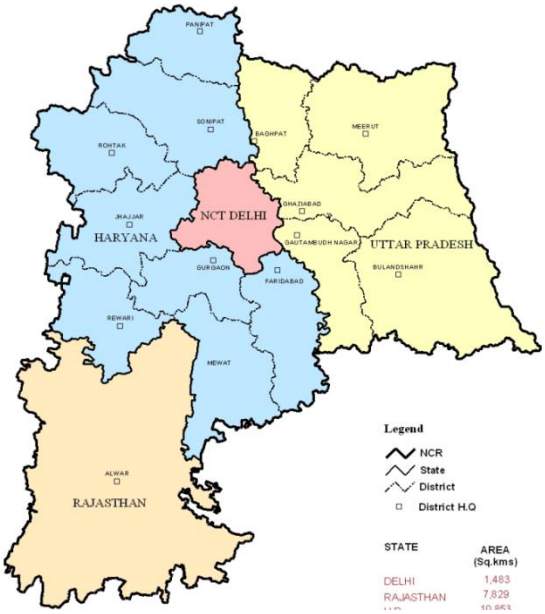
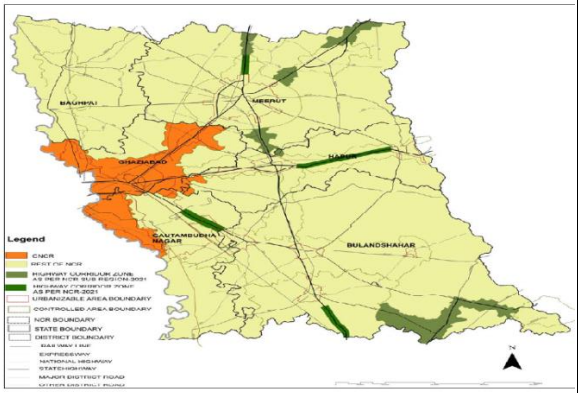
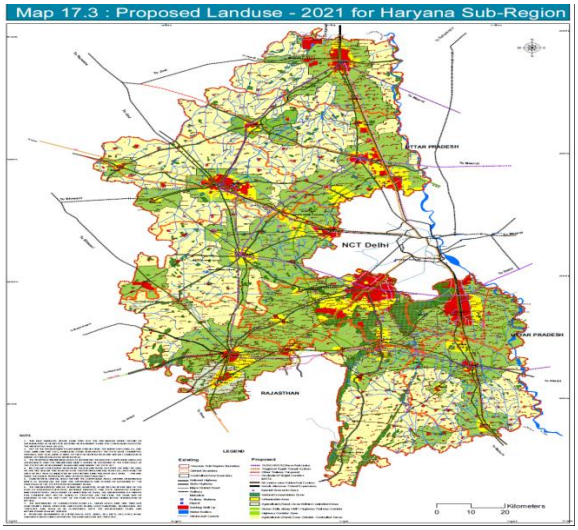
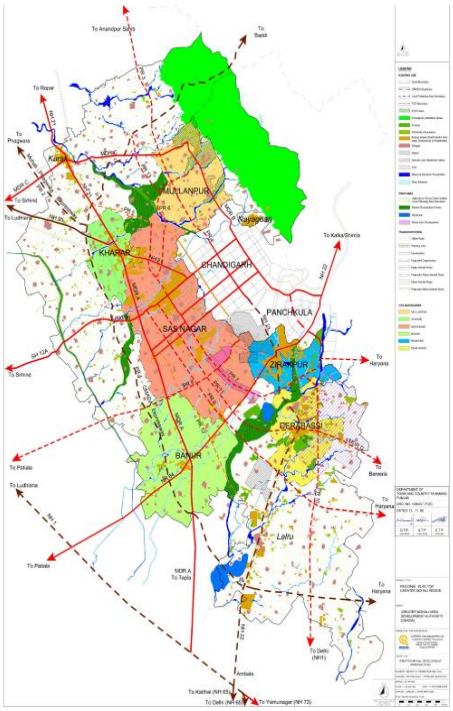
Annexure -I

Basic Information of Case Studies

This appendix just tabulates basic information just captures the spirit and does not contain verbatim production.

NAME	REGIONAL/ SUB REGIONAL MAP	Area and Broad Constituents
NCRpB		**Area:** 34, 144 sq.km **Constituents:** **Haryana:** Faridabad, Gurgaon, Mewat, Rohtak, Sonepat, Rewari, Jhajjhar, Panipat and Palwal **Uttar Pradesh :** Meerut, Ghaziabad, Gautam Budha Nagar, Bulandshahr, Hapur and Baghpat **Rajasthan;** Alwar **Delhi ;** NCT of Delhi **Counter Magnet Areas:** Hissar in Haryana, Bareilly in Uttar Pradesh, Kota in Rajasthan, Patiala in Punjab & Gwalior in Madhya Pradesh **Population :** 3,71,00,266 census 2001 The NCR lies between 270 03' and 290 29' North latitude and 760 07' and 780 29' East longitude
NCT of Delhi		**Area:** 1483 sq.km **Constituents:** NCT of Delhi 15 zones from A to H and J to P, of which 8 zones are in the urban area, one in riverbed and remaining 6 in the rural area **Population :** 1,38,50,507 census 2001

NAME	REGIONAL/ SUB REGIONAL MAP	Area and Broad Constituents
UP Sub-region NCR		**Area:** 10,853 sq.km **Constituents:** Meerut, Ghaziabad, Gautam Budha Nagar, Bulandshahr, Hapur and Baghpat **Population :** 1,15,70,117 census 2001
Haryana Sub-region NCR		**Area:** 13,428 sq.km **Constituents:** Faridabad, Gurgaon, Mewat, Rohtak, Sonepat, Rewari, Jhajjhar, Panipat and Palwal **Population :** 86,87,050 census 2001
GMADA RPA -Punjab		**Area:** 1190 sq.km plus Fatehgarh Sahib, Roop Nagar and Mandi Gobindgarh **Constituents:** SAS Nagar, Banur, Mullanpur, Kharar, Zirakpur, Derabassi, Lalru, Fatehgarh Sahib, Roopnagar and Mandi Gobindgarh **Population :**1,33,955 census 2001 plus Fatehgarh Sahib, Roop Nagar and Mandi Gobindgarh Location : Greater Mohali Region (GMR) surrounds Chandigarh on three sides.

	Geography
North India	North India lies mainly on continental India, north of peninsular India. Towards its north are the Himalayas which define the boundary between the Indian subcontinent and the Tibetan plateau. To its west is the Thar desert, shared between north India and Pakistan and the Aravali Range, beyond which lies the state of Gujarat. The Vindhya mountains under some interpretations, are taken to be the southern boundary of north India. The predominant geographical features of north India are the Indo-Gangetic plains, which span the states of Punjab, Haryana, Uttar Pradesh and Bihar. The Himalayas lie in the states of Uttarakhand, Himachal Pradesh and Jammu and Kashmir while the Thar desert lies mainly in the state of Rajasthan. The state of Madhya Pradesh has large areas under forest cover, as do the states of Himachal Pradesh and Uttarakhand. Source: Northern Region - Geological Survey of India, Geological Survey of India, MOI, Government of India. http://www.portal.gsi.gov.in/portal, retrieved May2, 2015
	Climate
North India	**General:** North India lies mainly in the north temperate zone of the earth. Cool or cold winters, hot summers and moderate monsoons is the general climatic pattern. North India is one of the most climatically diverse regions on the earth. During summers, the temperature often rises above 35 °C across much of the Indo-Gangetic plain, reaching as high as 45 °C in the Thar desert, Rajasthan. During winter, the lowest temperature on the plains dips to below 5 °C, and below freezing point in some states. Heavy to moderate snowfall occurs in the mountainous states of Himachal Pradesh, Jammu & Kashmir and Uttarakhand. Much of north India is notoriously infamous for heavy fog during winter months. Extreme temperatures among inhabited regions have ranged from −45 °C (−49 °F) in Dras, Jammu and Kashmir[23] to 50.6 °C (123 °F) in Alwar, Rajasthan. Dras is claimed to be the second-coldest inhabited place on the planet (after Siberia), with a recorded low of -60 °C. Source: Northern Region - Geological Survey of India, Geological Survey of India, MOI, Government of India. http://www.portal.gsi.gov.in/portal, retrieved May2, 2015
GMADA	The region experiences extreme weather conditions. The period of April to June experiences hot and dry season with the maximum temperature reaching 45ºC. November to February is subjected to cold weather and in winters the minimum temperature goes down to about 1º C.

	In Punjab, the average annual rainfall ranges from 58 cm in the plains to 96 cm in the sub-mountain regions and decreases from north to south. The annual average rainfall in Greater Mohali Region is 114 cm and is heavy during the monsoon season. The monsoon season starts in the first week of July and continues till middle of September. *Source: RPA GMADA 2008-58* *http://puda.gov.in/img/approved_masterplan_files/Regional_rpt_2011.pdf*
	Charter/Rationale
NCRPB	**Rationale:** National Capital Region (NCR) is a unique example of inter-state regional development planning for a region, having a total area of over 33,500 Sq. km spanning over 15 districts in the states of U.P., Haryana, Rajasthan and National Capital Territory of Delhi, with the nation capital at it's core location. The National Capital Region (NCR) in India was constituted under the NCRPB Act, 1985; the key rationale was to promote balanced and harmonized development of the region, and to contain haphazard and unplanned urban growth by channelizing the flow and direction of economic growth (on which the urban phenomenon feeds) along more balanced and spatially-oriented paths. *Source: http://smartcities.gov.in/writereaddata/CitiesProfile/Delhi_NewDelhi.pdf*
DDA	The Delhi Development Authority has been given the following charter under section 6 of the Delhi Development Act, 1957: "To promote and secure the development of Delhi according to the plan and for that purpose the Authority shall have the power to acquire, hold, manage and dispose of land and other property, to carry out building, engineering, mining and other operations to execute works in connection - with supply of water and electricity, disposal of sewage and other services and amenities and generally to do anything necessary or expedient for purposes of such development and for purposes incidental thereto." ▪ To formulate a master plan for covering the present and future growth of Delhi and to promote and secure the development of Delhi according to the plan covering all the possible activities; ▪ To acquire, hold, manage and dispose of land and other property; ▪ To carry out building, engineering, mining and other operations; ▪ To provide services and amenities incidental to the above. *Source: DDA* *https://dda.org.in/tendernotices_docs/feb16/NIT%20and%20Instructions%20to%20bidders%20for%20NIT%20CMS1234.pdf.*

UP	All facilities performance to service standard norms would be stated in the form of a citizen charter to match citizens' expectations so that they can play the expected role. *UP Report* *http://goicharters.nic.in/ccinitiative.htm*
Punjab	**Citizen Charter** Punjab Urban Planning & Development Authority (PUDA), a state level development agency, constituted primarily to promote well planned and well-designed urban development, provide quality urban infrastructure both and social and physical, ensure quality of highest order in urban areas, promotion of conservation preservation of valuable natural and manmade built heritage, making available cost-effective, energy efficient, environmental friendly and affordable housing using state of the art technologies to all strata of society including poorest of the poor, promote role of private sector in achieving the objective of planned development, creation of urban infrastructure, housing etc. through this citizen charter makes commitment to all allotters/purchasers of properties and public at large to: ▪ Ensure transparency in decision making by eliminating all elements of subjectivity and arbitrariness; ▪ Provide efficient and prompt services within a minimum time frame; ▪ Make available quality product at affordable and competitive process; ▪ Make beneficiaries an integral part of decision making in framing, designing, executing and ensuring quality of all urban projects & programs; ▪ Provide information on all issue with promptness and in a most transparent manner; ▪ Creating an in house system of monitoring, periodic review and independent scrutiny of performance and projects; ▪ To achieve these objectives, commits itself to the following: • Quality of service; • Access to Information; • Grievance Redressal; • Consumers Obligations. *Source: Punjab Urban Development Authority* *http://puda.gov.in/users/citizen_charter*

Annexure -II

Applicable Acts & Laws

LEGAL FRAMEWORK FOR REGIONAL & URBAN DEVELOPMENT	
	Enabling Acts
NCRPB	The National Capital Region Planning Board Act, 1985
DDA	The Delhi Development Act, 1957 [61 of 1957, dated 27.12.1957]
UP	Awas Acts appendix-8, The Uttar Pradesh Urban Planning and Development Act, 1973 (President's Act No. 11 of 1973) U.P. Urban Planning and Development (Amendment and Validation) Act,1985
Haryana	The Punjab Scheduled Roads and Controlled Areas Restriction of Unregulated Development Act, 1963 (Punjab Act No. 41 of 1963)
Punjab	The Punjab Regional and Town Planning and Development Act,1995 Punjab; Act No. 11 of 1995
	Legal Sanction
NCRpB	Board with the approval of the central government before both houses of the parliament
DDA	DDA Authority & Ministry of Urban Development (MoUD)
UP	Two Houses of the legislature to approve the rules
Haryana	Received the assent of the President of India on the 22nd November, 1963 and first published in the Punjab Government Gazette (Extraordinary), Legislative Supplement, of 30th November, 1963
Punjab	Act of the legislature, of the state of Punjab notification , 26th May, 1995,
	Jurisdiction
NCRpB	Delhi, part of Uttar Pradesh, Haryana & Rajasthan
DDA	National Capital Territory of Delhi, NCR sub-region
UP	Uttar Pradesh, NCR sub-region
Haryana	Haryana, NCR sub-region

Punjab	Punjab, Greater Mohali GMADA, Roopnagar, Fatehgarh Sahib & Mandi Gobindgarh
	Supporting Laws Apartment Act/ Rules
NCRpB	▪ Under the preview of the constituent states
UP	▪ U,P.,(Regulation of building Operations) Act. 1958 on areas notified as regulated areas ▪ Appendix-8 The Uttar Pradesh Urban Planning And Development Act, 1973(President's Act No. 11 of 1973)extends to the whole of Uttar Pradesh ▪ Uttar Pradesh ShashanawasEvamSahariNiyojan Anubhag-1. The Uttar Pradesh Apartment (Promotion of Construction, Ownership and Maintenance) Rules, 2011
Haryana	▪ The Haryana Development And Regulation Of Urban Areas AcT, 1975 (Haryana Act No. 8 OF 1975 the Governor of Haryana and published in the Haryana Government Gazette (Extraordinary), Legislative Supplement Part I of 30th January, 1975.] ▪ All urban areas of Haryana
Punjab	▪ Punjab Apartment and Property Regulation Act, 1995.
	Ownership Act
NCRpB	▪ In the preview of Constituent States
DDA	▪ Delhi Apartment Ownership Act, 1986
UP	▪ The Uttar Pradesh Ownership of Flats Act, 1975 ▪ (U.P. Act No. 50 of 1975) the owners of flats may withdraw a property from the provisions of this Act
Haryana	▪ The Haryana Apartment Ownership Act, 1983 Haryana Act No. 10 of 1983
Punjab	▪ The Punjab Apartment Ownership Act, 1995(Punjab Act No. 13 of 1995)
	Byelaws
NCRpB	▪ Under the preview of the constituent states
DDA	▪ Building Bye Laws 1984 (BBL)
UP	▪ Bhawan Nirman Avam Vikas Upvidhi 2008
Haryana	▪ HUDA (Erection of building) amendments regulations, 2008

Punjab	▪ Punjab Urban Planning and Development Authority (Building) Rules, 2013
	Some Fees & Charges
NCRpB	▪ Financing agency
DDA	▪ Levy of betterment charges on increase in value of the property resulting from the execution of the development ▪ Arrear of land revenue
UP	▪ To levy betterment charge on increase in value of the property resulting from the execution of the development ▪ 2%-5% stamp duty additional, after the deduction of incidental expenses ▪ Toll ▪ Uttar Pradesh Urban Planning & Development (Assessment, Levy and Collection of Development Fee) Rules, 2013, revised annually ▪ Supplementary development fee not exceeding 25 percent of the development fee for provision of city level infrastructure.
Haryana	▪ Scrutiny fee ▪ According to hyper, high, medium or Low potential abutting national highway/ schedule , sector or other road. According to landuse& FAR. o Conversion Charges, in the Controlled Areas In the State o License fee, o Conversion charges o Infrastructure development charges (IDC)
Punjab	▪ Levy, assessment and recovery of development charge and betterment charges, scrutiny fee according to hyper, high, medium or Low potential abutting national highway/ schedule , sector or other road. o According to landuse & FAR o License fee, o Change in landuse charges o External development charges (EDC)

	○ Urban development fund
	States Housing Boards
NCRpB	▪ Under the preview of the constituent states
DDA	▪ Delhi Urban Shelter Board
UP	▪ The Uttar Pradesh Avas EvamVikas Parishad Adhiniyam, 1965 ▪ U.P. Act no. 1 of 1966, as amended by U.P. Act no. 29 of 1962, U.P. Act no. 30 of 19703, U.P. Act no. 13 of 19724, U.P. Act no. 22 of 19725, U.P. Act 28 of 1976, U.P. Act no. 47 of 19766 and U.P. Act no. 10 of 1978 COGNATE Act- U.P. Act 11 of 1973 As re-enacted by U.P. Act 30 of 1974 (as passed by U.P. legislature)
Haryana	▪ The Housing Board Haryana came into existence during the year 1971 in pursuance of the Haryana Housing Board Act (Act no. 20 of 1971). The Act was published in the state government's extraordinary gazette of May 18, 1971. The main objective of the board is to construct houses for allotment to the public in accordance with the guidelines issued by the state government and the prescribed procedure. The emphasis is to construct houses for socially and economically weaker sections of the society.
Punjab	▪ Chapter XV Abolition of the Punjab Housing Development Board and Transfer of its assets and liabilities
	Important Influence on Development
NCRpB	▪ Under the supremacy of constituent states
DDA	▪ Master Plan of Delhi, 2021 ▪ Delhi Urban Arts Commission (DUAC) ▪ Municipal Acts
UP	▪ U.P. Industrial Area Development Act – 1976 (U.P. Act no. 6, of 1976) ▪ Integrated township policy, license based process 2014 ▪ Land assembly and development on agreement to develop lease
Haryana	▪ The Punjab New (Capital) Periphery Control Act, 1952

Punjab	▪ The Punjab New (Capital) Periphery Control Act, 1952 ▪ Punjab New Capital (Periphery) Control Rules, 1959
	Objectives of the State Acts or Operational Departments
NCRpB	*Source: Act* An act to provide for the constitution of a planning board for the preparation of a plan for the development of the National Capital Region (NCR) and for co-coordinating and monitoring the implementation of such plan and for evolving harmonized policies for the control of land uses and development of infrastructure in the National Capital Region so as to avoid any haphazard development of that region and for matters connected therewith or incidental thereto.
DDA	*Source: Act Objective* To promote and secure the development of Delhi, according to plan and for that purpose the authority shall have the power to acquire, hold, manage and dispose of land and other property, to carry out building, engineering, mining and other operations, to execute works in connection with supply of water and electricity, disposal of sewage and other services and amenities and generally to do anything necessary or expedient for purposes of such development and for purposes incidental thereto.
UP	*UP Urban Planning and Development Act,1973* The objects of the Authority shall be promote and secure the development of the development area according to plan and for that purpose the authority shall have the power to acquire, hold, manage and dispose of land and other property, to carry out building, engineering, mining and other operations, to execute works in connection with the supply of water and electricity to dispose of sewage and to provide and maintain other services and amenities and generally to do anything necessary or expedient for purposes of such development and for purposes incidental thereto: *UP Industrial act* To provide for the constitution of an authority for the development of certain areas in the state into industrial and urban township and for matters connected therewith
Haryana	An Act to prevent haphazard and sub-standard development along scheduled roads and in controlled areas in the state of Haryana, be it enacted by the legislature of the state of Punjab in the fourteenth year of the Republic of India
Punjab	*PRTD* To make provision for better planning and regulating the development and use of land in planning areas delineated for that purpose, for preparation of regional plans and master plans and

	implementation thereof; for the constitution of a State Regional and Town Planning and Development Board, for guiding and directing the planning and development processes in the State; for constitution of a State Urban Planning and Development Authority, Special Urban Planning and Development Authorities and New Town Planning and Development Authorities, for the effective and planned development of planning areas; and for undertaking urban development and housing programs and schemes for establishing new town; and for matters connected therewith or incidental thereto.

Regional Development Documents

Under the provision of state development acts the state is divided into development areas or zones, either independently or as a subset of a regional plan .However in any of the cases the development document broadly comprises of a regional, master or zonal plan and a supportive written document. This set, then forms a blue print for all matters relating to development right from data collection , demographics, their analysis, setting out socio–economic objectives, planning & design to infrastructure design. The proposal then passes through a process of legal approval as laid down in the state acts, where after it earns a statuary status to be complied by all stakeholders.

All the 5 regions relating to different states too have such a document in position the very logic to select the region as a case study. The related documents region wise are tabulated below.

Regional Development Documents	
Region	**Name**
NCRpB	Draft Revised Regional Plan, 2012
DDA	Master Plan of Delhi, MPD 20-21
UP	Sub-regional Plan 2021 NCR Planning Cell, Uttar Pradesh
Haryana	Sub-regional Plan for Haryana Sub-region of NCR-2021: Draft Report
Punjab	GMADA , Regional Plan 2008-2058
Region	**Agency**
NCRpB	In the preview of the constituent states monitored by National Capital Region Board
DDA	Delhi Development Authority
UP	The responsibility of preparing the Sub-regional Plan for UP Sub-region rests with the UP-NCR Planning Cell located at Ghaziabad. Cell is working under the administrative

	control of Housing and Urban Planning Department of UP Government.
Haryana	Department of Town & Country Planning, Haryana
Punjab	Preparation by Town & Country Planning Punjab and approval by Punjab Regional & Town Planning Development Board, under the chairmanship of Chief Minister, Punjab

State Regional Development Documents Planning Aspect

From these dissimilar development document, common factors were culled out and positioned under a similar captions with a view to understand the commonality or differences. The region wise broad parameters and salient features of the development of regions were also studied for framing questions.

Observation

It was observed that the format of document of UP NCR and Haryana NCR were somewhat similar probably that both the regions are being monitored by NCR Planning Board. Although the National Capital Territory of Delhi and Document of NCRPB itself are similarly monitored, these and that of GMADA were following different formats. From these dissimilar development document, some of the common factors were culled out and positioned under a similar captions and studied.

It was generally observed that all these regions have democratically elected governments, under the Indian Union, they share a similar geographical and climatic conditions being located in north India. They faced similar geo-political condition in the past. After the demise of British Empire, when India gained independence but partitioned into separate countries of India & Pakistan in 1947. The death, destruction, mass migration and the loss of family, business or property were a common regional phenomenon.

From the factor wise broad assessment it can be observed that these regions belong to states, which share comparable history & geography, parallel socio-cultural & economic backgrounds. So much so that the ethos is nearly comparable. One of the difference however lies in the fact that while NOIDA in UP NCR and SAS Nagar & Mullanpur in GMADA are greenfield cities. Gurgaon and Faridabad in Haryana have originated from unplanned past. While, Delhi, Panipat, Sonipat from Haryana Ghaziabad in UP and Zirakpur and Kharar in GMADA are older cities and are hybrids of planned or unplanned.

All regions exhibit similar concerns and share broadly comparable goals and objectives most of them cajoled and bound by NCR Planning board. It has been observed that in spite of many similarities and availability of a plan document, over a period of time the development direction has gone in diverse directions. Majority of the documents had varied formats although sub-sets and sub-clauses had similar factors but with varied degree of focus, intensity and regulations This is likely to result into diverse levels and types of development**.**

Thus it would be possible to identify relative success factors or gaps.

Annexure -III

Evaluation of Administrators and Planners-Evaluation of Emerged Factors

12 critical factors evolved for "Framework of Development through Regional Master Planning" through a detailed survey of stakeholders and their Participatory Stakeholders Analysis

Evaluating the state policy framework against the 12 identified factors evolved through factor analysis on a 5 point Likert scale (1= least covered by the state policy and 5= best covered by the state policy.

[Top down inputs for enabling identification of critical gaps or success factors in the framework evolved through PSA.]

	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F
ALL STATES WEIGHTED AVERAGE	Design (Intangible) of RMP: **Dynamics of Strategic Enterprise**	Design (Intangible) of RMP: **Dynamics of Creative Design Enterprise**	Tangible Infrastructure: **Smart Utility Services**	Tangible Infrastructure: **Basic Human Facility**	Indicators: **Quality of Living Environment**	Indicators: **Quality of Working Environment**	Regional verses Local Planning: **Amplifying Governance Factor**	Regional verses Local Planning: **Benefit to Stakeholder other than Governments**	Barriers: Approvals: **Human and Procedural Interventions**	Barriers: Infrastructure: **Financial and Project Structuring**	Challenges: **Implementation: Business Model and Management**	Challenges: **Implementation: Delivery and Regulatory Mechanism**
	1.	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**	**12.**
•Former Secretary MOUD, GOI												
NCR	3	2	2	3	3	3	2	1	2	3	1	1
Delhi	3	2	2	2	2	2	3	2	2	3	1	1
UP (NOIDA- Greater NOIDA-Ghaziabad)	2	1	1	2	3	2	1	1	1	2	1	1
Haryana	3	3	3	3	4	3	3	3	2	2	3	3
Punjab(GMADA)	3	3	3	3	4	3	4	3	2	2	3	3
•Former Secretary MOUD, GOI												
NCR	3	4	3	4	3	3	3	3	4	3	3	3
Delhi	3	4	3	4	3	3	3	3	4	3	3	3
UP (NOIDA- Greater NOIDA-Ghaziabad)	4	3	3	3	0	4	4	3	4	3	3	3
Haryana	4	4	3	4	4	4	4	4	4	4	4	4
Punjab (GMADA)	4	3	3	4	3	4	4	4	4	4	4	4
•Present Additional Secretary												

MOUD, GOI												
NCR	3	2	2	3	4	3	2	1	2	3	1	1
Delhi	3	2	2	3	4	3	2	2	2	3	1	1
UP (NOIDA- Greater NOIDA-Ghaziabad)	2	1	1	2	3	2	1	1	1	2	1	1
•Former Additional Secretary MOUD, GOI												
NCR	3	2	3	3	3	3	2	1	2	3	1	1
Delhi	3	2	3	3	4	3	2	2	2	3	1	1
UP (NOIDA- Greater NOIDA-Ghaziabad)	3	3	3	2	3	2	2	1	1	2	2	2
•Joint Secretary MOUD, GOI-Smart City of India												
NCR	3	3	3	3	3	3	3	3	3	2	2	2
Delhi	3	3	3	3	3	2	3	2	2	2	1	1
•Former Joint Secretary HUPA MOUD Govt. of India												
NCR	2	3	2	2	3	2	3	1	1	1	1	1
Delhi	2	3	2	2	3	2	3	2	1	1	1	1
Haryana	3	3	3	3	4	3	3	3	2	2	3	3
Punjab (GMADA)	3	4	3	3	4	3	4	3	2	2	3	3
•Vice Chairman DDA former												
NCR	3	2	3	3	3	3	2	1	2	3	1	1
Delhi	3	2	3	3	3	2	2	1	2	3	1	1
UP (NOIDA- Greater NOIDA-Ghaziabad)	2	1	2	2	3	2	1	1	1	2	1	1
•Vice Chairman DDA												
NCR	3	2	3	3	3	3	2	1	2	3	1	1
Delhi	3	2	3	3	3	3	2	1	2	3	1	1
UP (NOIDA- Greater NOIDA-Ghaziabad)	2	1	2	2	3	2	1	1	1	2	1	1
•Late Chief Town Planner , Govt. of India												
NCR	2	2	3	3	2	3	2	1	2	2	1	1
Delhi	2	2	2	3	1	3	2	1	3	3	1	1
UP (NOIDA- Greater NOIDA-Ghaziabad)	3	2	3	2	3	2	1	1	1	1	2	2
Haryana	3	4	2	3	3	3	3	3	2	2	3	3

Punjab (GMADA)	3	3	3	3	3	3	4	3	2	2	3	**3**
•Additional Chief Town Planner , Govt. of India												
NCR	3	4	4	4	3	4	4	2	3	3	3	3
Delhi	3	4	2	2	2	4	2	3	3	3	4	**4**
UP (NOIDA- Greater NOIDA-Ghaziabad)	4	4	4	4	3	5	2	3	4	4	4	4
Haryana	3	4	2	2	4	4	4	3	3	2	3	3
Punjab (GMADA)	3	3	3	3	3	3	4	3	2	2	3	3
•Current Chief Town Planner , Govt. of India												
NCR	3	2	2	3	3	3	2	1	2	3	1	1
Delhi	3	2	2	3	4	3	2	2	2	3	1	1
UP (NOIDA- Greater NOIDA-Ghaziabad)	2	1	1	2	3	2	1	1	1	2	1	1
Haryana	3	4	3	3	4	3	4	3	2	2	3	3
Punjab (GMADA)	4	3	3	3	3	2	4	3	2	2	3	3
•Former Secretary Housing and Urban Development GOP												
Punjab (GMADA)	3	3	3	3	4	2	3	2	2	2	3	3
•Chief Administrator GMADA												
Punjab (GMADA)	3	4	4	4	4	2	3	2	2	2	3	3
•CEO												
Punjab (GMADA)	3	3	3	2	3	1	4	2	2	2	1	1
•Town Planner of DDA												
NCR	3	2	2	3	3	3	2	1	2	3	1	1
Delhi	4	3	3	3	2	3	2	1	2	3	2	2
•Town Planner of DDA												
NCR	3	2	2	3	3	3	2	1	2	3	1	1
Delhi	4	3	3	3	3	1	1	1	2	2	2	2
•Town Planner of DDA												
NCR	3	2	3	3	3	3	2	1	2	3	1	1
Delhi	4	3	2	3	2	3	2	1	3	3	3	3
•Former Secretary Housing, Haryana												
Haryana	3	4	3	3	3	4	4	3	3	3	3	3
•Chief Administrator PUDA												
Punjab (GMADA)	3	4	4	4	4	2	3	2	2	2	3	3

•Present Additional Secretary MHA MOUD, GOI,												1
NCR	3	2	2	3	3	3	2	1	2	3	1	1
Delhi	3	2	2	3	3	3	2	2	2	3	1	2
UP (NOIDA- Greater NOIDA-Ghaziabad)	2	2	2	2	3	2	2	1	1	2	2	**3**
Haryana	3	4	2	3	3	3	3	3	2	2	3	**3**
Punjab (GMADA)	4	3	3	3	3	3	4	3	2	2	3	**119**
Total	**176**	**160**	**154**	**171**	**192**	**181**	**165**	**153**	**115**	**127**	**147**	
Total Score	**295**											**2.017**
All States	**2.983**	**2.712**	**2.610**	**2.898**	**3.254**	**3.068**	**2.797**	**2.593**	**1.949**	**2.153**	**2.492**	

		1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	
	NCR	Design (Intangible) of RMP: **Dynamics of Strategic Enterprise**	Design (Intangible) of RMP: **Dynamics of Creative Design Enterprise**	Tangible Infrastructure: **Smart Utility Services**	Tangible Infrastructure: **Basic Human Facility**	Indicators: **Quality of Living Environment**	Indicators: **Quality of Working Environment**	Regional verses Local Planning: **Amplifying Governance Factor**	Regional verses Local Planning: **Benefit to Stakeholder other than Governments**	Barriers: Approvals: **Human and Procedural Interventions**	Barriers: Infrastructure**: Financial and Project Structuring**	Challenges: **Implementation: Business Model and Management**	Challenges: **Implementation: Delivery and Regulatory Mechanism**	
	•Former Secretary MOUD,													
1	NCR	3	2	2	3	3	3	3	2	1	2	3	1	
	•Former Secretary MOUD, GOI													
2	NCR	3	4	3	4	4	3	3	3	3	4	3	3	
	•Present Additional Secretary MOUD, GOI,													
3	NCR	3	2	2	3	4	4	3	2	1	2	3	1	
	•Former Additional Secretary MOUD, GOI													
4	NCR	3	2	3	3	3	3	3	2	1	2	3	1	
	•Joint Secretary MOUD, GOI													
5	NCR	3	3	3	3	3	3	3	3	3	3	2	2	
	•Former Joint Secretary HUPA MOUD Govt. of India													

6	NCR	2	3	2	2	3	3	2	3	1	1	1	1	
	•Vice Chairman DDA													
7	NCR	3	2	3	3	3	3	3	2	1	2	3	1	
	•Vice Chairman DDA													
8	NCR	3	2	3	3	3	3	3	2	1	2	3	1	
	•Former Chief Town Planner , Govt. Of India													
9	NCR	**2**	**2**	**3**	**3**	**3**	**2**	**3**	**2**	**1**	**2**	**2**	**1**	
	•Additional Chief Town Planner , Govt. Of India													
10	NCR	3	4	4	4	4	3	4	4	2	3	3	3	
	•Current Chief Town Planner , Govt. Of India													
11	NCR	3	2	2	3	4	3	3	2	1	2	3	1	
	•Town Planners of DDA													
12	NCR	3	2	2	3	3	3	3	2	1	2	3	1	
	•Town Planners of DDA													
13	NCR	3	2	2	3	3	3	3	2	1	2	3	1	Poor interpretation of Law
	•Town Planners of DDA													
14	NCR	3	2	3	3	4	3	3	2	1	2	3	1	
	•Present Additional Secretary MHA MOUD, GOI													
15	NCR	3	2	2	3	3	3	3	2	1	2	3	1	
	Total	43	36	39	46	50	45	45	35	20	33	41	20	
	Total Score	75												
	NCR	2.867	2.400	2.600	3.067	3.333	3.000	3.000	2.333	1.333	2.200	2.733	1.333	

		1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	
	Delhi	Design (Intangible) of RMP: **Dynamics of Strategic Enterprise**	Design (Intangible) of RMP: **Dynamics of Creative Design Enterprise**	Tangible Infrastructure: **Smart Utility Services**	Tangible Infrastructure: **Basic Human Facility**	Indicators: **Quality of Living Environment**	Indicators: **Quality of Working Environment**	Regional verses Local Planning: **Amplifying Governance Factor**	Regional verses Local Planning: **Benefit to Stakeholder other than Governments**	Barriers: Approvals: **Human and Procedural Interventions**	Barriers: Infrastructure**: Financial and Project Structuring**	Challenges: **Implementation: Business Model and Management**	Challenges: **Implementation: Delivery and Regulatory Mechanism**	
	•Former Secretary MOUD,													
1	Delhi	3	2	2	2	2	2	2	3	2	2	3	1	
	•Former Secretary MOUD,													
2	Delhi	3	4	3	4	4	3	3	3	3	4	3	3	
	•Present Additional Secretary MOUD, GOI,													
3	Delhi	3	2	2	3	4	4	3	2	2	2	3	1	
	•Former Additional Secretary MOUD, GOI													
4	Delhi	3	2	3	3	3	4	3	2	2	2	3	1	
	•Joint Secretary MOUD, GOI													
5	Delhi	3	3	3	3	3	3	2	3	2	2	2	1	
	•Former Joint Secretary HUPA MOUD Govt. of India													
6	Delhi	2	3	2	2	3	3	2	3	2	1	1	1	
	•Vice Chairman DDA													

7	Delhi	3	2	3	3	3	3	2	2	1	2	3	1	
	•Vice Chairman DDA													
8	Delhi	3	2	3	3	2	3	3	2	1	2	3	1	
	•Late Chief Town Planner , Govt. Of India													
9	Delhi	**2**	**2**	**2**	**3**	**1**	**1**	**3**	**2**	**1**	**3**	**3**	**1**	
	•Additional Chief Town Planner , Govt. Of India													
10	Delhi	**3**	**4**	**2**	**2**	**2**	**2**	**4**	**2**	**3**	**3**	**3**	**4**	
	•Current Chief Town Planner, Govt. Of India													
11	Delhi	3	2	2	3	3	4	3	2	2	2	3	1	
	•Former Secretary Housing and Urban Development GOP													
12	Punjab (GMADA)	3	3	3	3	4	4	2	3	2	2	2	3	
	•Town Planners of DDA													
13	Delhi	4	3	3	3	3	2	3	2	1	2	3	2	
	•Town Planners of DDA													
14	Delhi	4	3	3	3	3	3	1	1	1	2	2	2	Poor Enforcement
	•Town Planners of DDA													
15	Delhi	4	3	2	3	2	2	3	2	1	3	3	3	
	•Present Additional Secretary MHA MOUD, GOI													
16	Delhi	3	2	2	3	3	3	3	2	2	2	3	1	
	Total	49	42	40	46	45	46	42	36	28	36	43	27	
	Total Score	80												
	Delhi	3.063	2.625	2.500	2.875	2.813	2.875	2.625	2.250	1.750	2.250	2.688	1.688	

		1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	
	UP (NOIDA-Greater NOIDA-Ghaziabad)	Design (Intangible) of RMP: **Dynamics of Strategic Enterprise**	Design (Intangible) of RMP: **Dynamics of Creative Design Enterprise**	Tangible Infrastructure: **Smart Utility Services**	Tangible Infrastructure: **Basic Human Facility**	Indicators: **Quality of Living Environment**	Indicators: **Quality of Working Environment**	Regional verses Local Planning: **Amplifying Governance**	Regional verses Local Planning: **Benefit to Stakeholder other**	Barriers: Approvals: **Human and Procedural Interventions**	Barriers: Infrastructure**: Financial and Project Structuring**	Challenges: **Implementation: Business Model and Management**	Challenges: **Implementation: Delivery and Regulatory Mechanism**	
	•Former Secretary MOUD,													
1	UP (NOIDA- Greater NOIDA- Ghaziabad)	2	1	1	2	3	3	2	1	1	1	2	1	
	•Former Secretary MOUD, GOI													
2	UP (NOIDA- Greater NOIDA- Ghaziabad)	4	3	3	3	3	0	4	4	3	4	3	3	
	•Present Additional Secretary MOUD, GOI,													
3	UP (NOIDA- Greater NOIDA- Ghaziabad)	2	1	1	2	3	3	2	1	1	1	2	1	
	•Former Additional Secretary MOUD, GOI													
4	UP (NOIDA- Greater NOIDA- Ghaziabad)	3	3	3	2	3	3	2	2	1	1	2	2	
	•Vice Chairman DDA													
5	UP (NOIDA- Greater NOIDA- Ghaziabad)	2	1	2	2	3	3	2	1	1	1	2	1	

	•Vice Chairman DDA													
6	UP (NOIDA- Greater NOIDA- Ghaziabad)	2	1	2	2	3	3	2	1	1	1	2	1	
	•Former Chief Town Planner, Govt. Of India													
7	UP (NOIDA- Greater NOIDA- Ghaziabad)	3	2	3	2	3	3	2	1	1	1	1	2	
	•Additional Chief Town Planner, Govt. Of India													
8	UP (NOIDA- Greater NOIDA- Ghaziabad)	4	4	4	4	4	3	5	2	3	4	4	4	
	•Current Chief Town Planner, Govt. Of India													
9	UP (**NOIDA-Greater** NOIDA- Ghaziabad)	2	1	1	2	3	3	2	1	1	1	2	1	
	•Former Secretary Housing and Urban Development GOP													
10	Punjab (GMADA)	3	3	3	3	4	4	2	3	2	2	2	3	
	•Chief Administrator GMADA													
11	Punjab (GMADA)	3	4	4	4	4	4	2	3	2	2	2	3	
	•CEO													
12	Punjab (GMADA)	3	3	3	2	4	3	1	4	2	2	2	1	
	•Present Additional Secretary MHA MOUD, GOI,													
13	UP (**NOIDA-Greater** NOIDA- Ghaziabad)	2	2	2	2	3	3	2	2	1	1	2	2	
	Total	35	29	32	32	43	38	30	26	20	22	28	25	
	Total Score	65												
	UP (NOIDA-Greater NOIDA- Ghaziabad)	2.692	2.231	2.462	2.462	3.308	2.923	2.308	2.000	1.538	1.692	2.154	1.923	

		1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	
	Haryana	Design (Intangible) of RMP: **Dynamics of Strategic Enterprise**	Design (Intangible) of RMP: **Dynamics of Creative Design Enterprise**	Tangible Infrastructure: **Smart Utility Services**	Tangible Infrastructure: **Basic Human Facility**	Indicators: **Quality of Living Environment**	Indicators: **Quality of Working Environment**	Regional Planning verses Local: **Amplifying Governance**	Regional Planning verses Local: **Benefit to Stakeholder other**	Barriers: Approvals: **Human and Procedural**	Barriers: Infrastructure: **Financial and Project Structuring**	Challenges: **Implementation: Business Model and Management**	Challenges: **Implementation: Delivery and Regulatory Mechanism**	
	•Former Secretary MOUD, GOI													
1	Haryana	3	3	3	3	4	4	3	3	3	2	2	3	
	•Former Secretary MOUD, GOI													
2	Haryana	4	4	3	4	4	4	4	4	4	4	4	4	
	•Former Joint Secretary HUPA MOUD Govt. of India													
3	Haryana	3	3	3	3	4	4	3	3	3	2	2	3	
	•Former Chief Town Planner, Govt. Of India													
4	Haryana	**3**	**4**	**2**	**3**	**3**	**3**	**3**	**3**	**3**	**2**	**2**	**3**	
	•Additional Chief Town Planner, Govt. Of India													
5	Haryana	3	4	2	2	3	4	4	4	3	3	2	3	
	•Current Chief Town Planner, Govt. Of India													
6	Haryana	3	4	3	3	3	4	3	4	3	2	2	3	
	•Former Secretary Housing, Haryana													

7	Haryana	3	4	3	3	3	3	4	4	3	3	3	3	
	•Present Additional Secretary MHA MOUD, GOI													
8	Haryana	**3**	**4**	**2**	**3**	**3**	**3**	**3**	**3**	**3**	**2**	**2**	**3**	
	Total	25	30	21	24	27	29	27	28	25	20	19	25	
	Total Score	40												
	Sub-region Haryana	3.125	3.750	2.625	3.000	3.375	3.625	3.375	3.500	3.125	2.500	2.375	3.125	

		1F	**2F**	**3F**	**4F**	**5F**	**6F**	**7F**	**8F**	**9F**	**10F**	**11F**	**12F**	
	Punjab (Greater Mohali)	Design (Intangible) of RMP: **Dynamics of Strategic Enterprise**	Design (Intangible) of RMP: **Dynamics of Creative Design Enterprise**	Tangible Infrastructure: **Smart Utility Services**	Tangible Infrastructure: **Basic Human Facility**	Indicators: **Quality of Living Environment**	Indicators: **Quality of Working Environment**	Regional verses Local Planning: **Amplifying Governance Factor**	Regional verses Local Planning: **Benefit to Stakeholder other than Governments**	Barriers: Approvals: **Human and Procedural Interventions**	Barriers: Infrastructure: **Financial and Project Structuring**	Challenges: **Implementation: Business Model and Management**	Challenges: **Implementation: Delivery and Regulatory Mechanism**	
14	•Former Secretary MOUD, GOI													
1	Punjab(GMADA)	3	3	3	3	4	4	3	4	3	2	2	3	
	•Former Secretary MOUD, GOI													
2	Punjab (GMADA)	4	3	3	4	4	3	4	4	4	4	4	4	
	•Former Joint Secretary HUPA MOUD Govt. of India													
3	Punjab (GMADA)	3	4	3	3	4	4	3	4	3	2	2	3	

	•Former Chief Town Planner, Govt. Of India													
4	Punjab (GMADA)	**3**	**3**	**3**	**3**	**4**	**3**	**3**	**4**	**3**	**2**	**2**	**3**	
	•Additional Chief Town Planner, Govt. Of India													
5	Punjab (GMADA)	3	3	3	3	4	3	3	4	3	2	2	3	
	•Current Chief Town Planner, Govt. Of India													
6	Punjab(GMADA)	4	3	3	3	4	3	2	4	3	2	2	3	
	•Former Secretary Housing and Urban Development GOP													
7	Punjab (GMADA)	3	3	3	3	4	4	2	3	2	2	2	3	
	•Chief Administrator GMADA													
8	Punjab (GMADA)	3	4	4	4	4	4	2	3	2	2	2	3	
	•CEO													
9	Punjab (GMADA)	3	3	3	2	4	3	1	4	2	2	2	1	
	•Chief Administrator PUDA													
10	Punjab (GMADA)	3	4	4	4	4	4	2	3	2	2	2	3	
	•Present Additional Secretary MHA MOUD, GOI													
11	Punjab (GMADA)	**4**	**3**	**3**	**3**	**3**	**3**	**3**	**4**	**3**	**2**	**2**	**3**	
	Total	36	36	35	35	43	38	28	41	30	24	24	32	
	Total Score	55												
	GM Punjab	3.273	3.273	3.182	3.182	3.909	3.455	2.545	3.727	2.727	2.182	2.182	2.909	

APPENDICES

APPENDIX – I

DATA ANALYSIS WORKSHEET

			Land Resources (LR)	**Developer and Government (SD)**	**Buyer and Investor of property (DD)**
Q.4Area Represented		**Total**	LR	SD	DD
	SAS Nagar	91	3	46	42
	Zirakpur	1	1	0	0
	Kharar	49	22	6	21
	Banur	17	3	1	13
	Mullanpur	137	16	2	119
	Derabassi	6	4	1	1
	Chandigarh	62	1	23	38
	Others (investor)	70	2	25	43
Q.6 Sex		**Total**	LR	SD	DD
1.	Male	**185**	29	88	68
2.	Female	**248**	59	16	209
Q.7 Area of Residence		**Total**	LR	SD	DD
1.	Urban	**306**	37	89	180
2.	Semi-Urban	**67**	9	11	47
3.	Rural	**60**	15	15	30
Q.8 Marital Status		**Total**	LR	SD	DD
1.	Single	**196**	29	26	55
2.	Married	**234**	22	78	134
3.	Divorcee/ widow(er)	**3**	1	0	2
Q.9 Education / Professional Qualifications		**Total**	LR	SD	DD
1.	Uneducated / just Literate(can only read and write)	**2**	1	0	1
2.	Primary / Middle / High school	**69**	16	29	24
3.	Graduation/ Post-Graduation and other Professional education	**362**	35	75	252
Q.10 Group by Profession / Occupation			**Total**		
1.	**<u>Group -1</u> :Land Resources** Land owner		**52**		

	Land assembler (Land bank for development				
2.	**<u>Group-2</u> : Supply Drivers** **Developer and Government** Builder/ Developer Licensee / Colonizer Property dealer/ Marketing / Sales Person Administrator/ Official of Development Authority/ Approval Agencies/ Planner/ Engineer/ Architect / Estate Official / any other	**104**			
3.	**Group -3 : Demand Drivers** **Buyer and Investor of Property** Citizen Government /Public Sector Technical professional - engineer / doctors/ IT/ Architect/ consultant etc. Housewife In Private Service/Self-employed/Retired person Academics/ Teaching/ Student Industrialist / Entrepreneur/ Businessman Other Profession - Lawyer/ CA / CS/ Management/ Consultant etc.	**277**			
Q.11 Profession of the Spouse		**Total**	LR	SD	DD
1.	Unemployed	**106**	9	17	80
2.	Employed	**249**	24	55	170
3.	Self-employed	**79**	19	33	27
Q.12 Average Household Income Per Year from all sources (Rs.)		**Total**	LR	SD	DD
1.	Non taxpayer	**133**	21	22	90
2.	Low taxpayer	**207**	21	36	150
3.	High Tax payer / Wealth Tax payee	**93**	10	46	37
Q.13How much Land/Property does your Family/ Company Owns (in Acres)?		**Total**	LR	SD	DD
1.	0 – 1 Acre	**246**	12	53	181
2.	1 to 10 Acres	**122**	23	32	67
3.	10 to 100 Acres	**40**	8	5	27
4.	>100 acres	**25**	9	14	2
Q.14How much Income do you get from the Land Per Acre Every Year?		**Total**	LR	SD	DD

1.	<Rs.10,000	**197**	10	37	150
2.	Rs. 10,000 to 50,000	**94**	20	19	55
3.	Rs. 50,000 to Rs. 2,00,000	**81**	12	23	46
4.	>Rs. 2,00,000	**61**	10	25	26

s/n	**The Questions from Questionnaire**	**Responses of stakeholders to 5 point Likert Scale**						
Q.15	**Design (Intangible) Component of Development through RMP**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
15.1	Overall well planned rather than hap-hazard growth	20	24	40	134	215	500	83.09
15.2	Provision for balanced demographics	8	46	66	204	109	360	76.63
15.3	Beautiful urban architecture	12	41	109	128	143	349	76.12
15.4	Taking along the stakeholders	12	29	161	143	88	266	72.29
15.5	Provision for high economic activity	18	31	75	153	156	398	78.38
15.6	More employment opportunities	11	49	74	139	160	388	77.92
15.7	Better return on investment	38	72	65	132	126	236	70.90
15.8	Incorporation of lifestyle expressions	14	38	88	163	130	357	76.48
15.9	Opportunities and environment for creating intellectual capital and innovation	18	100	98	125	92	173	67.99
15.10	Safety and security	28	76	64	123	142	275	72.72
Q.16	**Infrastructure (Tangible) Component of Development through RMP**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
16.1	Well designed and professionally constructed infrastructure with modern technology	18	28	41	147	199	481	82.21
16.2	Transport Infrastructure	12	34	66	126	195	458	81.14
16.3	Trunk lines for utility services	7	35	75	172	144	411	79.98
16.4	Socio- cultural-health- sports infrastructure and public conveniences	12	26	71	199	125	399	78.42
16.5	Educational infrastructure	12	30	83	166	142	396	78.29
16.6	Affordable housing for all	13	85	98	106	131	257	71.96
16.7	Environment and sustainability	13	41	117	151	111	306	74.13
16.8	Large regional markets	6	55	107	156	109	307	74.18
Q.17	**Indicators (Parameters) as the Measures of the Development of Region**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
17.1	Infrastructure Index	15	38	37	132	211	486	82.45
17.2	Average commute time	18	77	81	128	129	273	72.61

17.3	Ease of doing business	13	42	98	136	144	356	76.44
17.4	Average per capita income	9	42	129	117	136	329	75.19
17.5	Average cost of energy per head	8	42	115	173	95	305	74.09
17.6	Average availability/ consumption of other resources	37	38	58	172	97	224	70.35
17.7	Average per capita expenditure /average cost of living	12	52	109	150	110	294	73.58
17.8	Literacy rate, quality of education and skill development	17	51	111	116	138	307	74.18
17.9	Jobs in secondary and tertiary sectors	21	52	76	169	115	305	74.09
17.10	Hospital beds/ population	25	94	98	127	89	161	67.43
Q.18	**Development through Integrated Regional Planning as Compared to Local Town Planning**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
18.1	Clear Jurisdiction breeds easy maintenance at less cost and Regulatory comfort	9	42	67	206	109	364	76.81
18.2	RMP enables bigger development, better business, bigger return	6	27	121	202	77	317	74.60
18.3	Defined parameters enables transparency and citizen friendly approvals	8	46	156	153	70	231	70.67
18.4	Legal supply of land enables easy enforcement and regulation	10	56	161	123	83	213	69.88
18.5	RMP enables cost effectiveness versus integrated small areas into regions	12	93	98	124	106	219	70.14
18.6	RMP enables connectivity and access for opening up of hinterland	13	49	80	187	104	320	74.78
18.7	RMP enables technically sound, balanced growth and services	3	38	87	129	176	437	80.18
18.8	RMP promotes business, trade and industry and garner stakeholders' support	6	32	92	148	155	414	79.12
Q.19	**Barriers/Hindrances to Regional Urbanization and Planned Development**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
19.1	Lack of awareness and education	9	17	223	77	107	256	71.82
19.2	Piecemeal not regional approach	1	19	258	117	38	172	67.94
19.3	Long procedures, delay, red- tapism and multi-agency	2	21	250	105	55	190	68.78
19.4	Lack of initiative, interest and non-participation by stakeholders	6	24	254	97	52	165	67.62
19.5	Transparency and acceptable method and cost of land acquisition	5	25	289	72	42	121	65.58
19.6	Funds and implementation models for basic	4	54	267	72	36	82	63.78

	infra							
19.7	Unviability through cost escalation and hoax	1	48	267	71	46	113	65.22
19.8	Corruption, pressure, resistance and vested interest	5	19	229	79	101	252	71.64
Q.20	**Present land utilization options**	**Total**						
20.1	Agriculture, vegetable, grains, cash crops and floriculture, etc.	85						
20.2	Dairy farming, poultry farming and fisheries etc.	69						
20.3	The land is lying fallow	105						
20.4	Given on rent/ lease to other party	50						
20.5	Household industry or small scale industry/ trade	67						
20.6	Built infrastructure for rent i.e. marriage palace, hostel etc	91						
20.7	Built farm house/ residential	65						
20.8	Institutional use – school, panchayatghar, dispensary, sports ground etc.	31						
20.9	Food processing units like rice shellar etc.	39						
Q.21	**Stakeholders sentiment for conceding land for development**	**Total**						
21.1	If the land is infertile, fallow,kaller, undulating, unusable &unsuitable for cultivation or other use including lack of irrigation water.	50						
21.2	If the land is disputed or under litigation.	26						
21.3	If the land is shared and not demarcated properly. Land is not in own name, but in the name of ancestors or relatives and there are ownership issues.	52						
21.4	Pressure of family members, especially the younger blood, who are not keen on farming and looking for better lifestyle through quick money or an alternate business or educated children do not want to engage in agriculture.	43						
21.5	Pressure of market forces as land cost has escalated due to nearness to development.	79						
21.6	If the Land holding is too fragmented/ small for agriculture to be viable or higher agriculture inputs.	48						
21.7	If the family is under debt/ loan. The land is	54						

	already mortgaged and the family is unable to pay back the debt because of unviable agriculture or inadequate income from the land to make two ends meet.							
21.8	Because of the unavailability of farm labour at affordable/ viable rates	76						
21.9	I may support the acquisition of land for							
	Transport infrastructure - airport, bus stand, railway stations, container services etc.	27						
	Setting up new industry where jobs would be available for younger generations	19						
	A housing/ development project where i am made a partner /allottee	85						
	Social, education & health infrastructure like hospitals, schools, colleges, play grounds government offices, etc.	29						
	Religious temples, gurudwara, old age homes, etc.	11						
21.10	It may be easier to acquire my land if							
	If the land owner get appropriate compensation for the land at its market value.	59						
	If my family livelihood is ensured for rest of the life or children are facilitated alternative livelihood	52						
	If I am given financial advice or package so that proper utilization of compensation can be made	24						
	If alternate roof on head of the land owner is assured.	11						
Q.22	**Preferred Modes for Sale/ Purchase/ Acquisition of Land for Development**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
22.1	Land acquisition by government for a lumpsum payment of compensation at the market price of land along with the additional solacium and/or a government job for a family member.	12	26	297	52	46	94	64.34
22.2	Land acquisition by government for the part payment of compensation at the market price along with additional solacium, and remaining compensation in equal monthly installments with interest for next 20 years/ life to ensure regular income for the family.	8	18	245	114	48	176	68.13
22.3	Land acquisition by government for the part	5	22	258	65	83	199	69.19

	payment of compensation at the market price along with additional solacism and a rehabilitation package for setting up an alternative means of livelihood for your family.							
22.4	Land acquisition by government for the part payment of compensation at the market price along with additional solacism and remaining in kind in lieu of cash, say some portion of the developed and approved land/ built modules.	4	10	253	119	47	195	69.00
22.5	I would like to participate in Land acquisition through the land pooling scheme of government where a residential and /or commercial plot in the developed area will be allotted to in proportion to the land pooled.	6	22	240	55	110	241	70.13
22.6	I would like to sell through direct negotiations to the private parties at the market value of land and get upfront payments directly from the buyers.	8	10	275	92	48	162	67.48
22.7	I would like to sell through direct negotiation to the private parties at the market value with part upfront payment and part payment in assured long term installments by the buyers as upfront money is likely to be spent away in no time.	13	67	274	48	31	17	60.83
22.8	Cashless partnership with government/ private partner in project/ joint venture with the market cost of the land as your equity investment in the project or share in profit.	20	55	254	71	33	42	61.93
22.9	Partnership with private partner in the project/ joint venture with the market cost of land as equity investment in the project and get return in kind in lieu of land, say some portion of the developed and approved land/ built modules.	24	56	258	58	37	28	61.29
Q.23	**Challenges in Implementing RMP for Development**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
23.1	Financing and maintaining regional infrastructure in face of profiteering by private sector	6	7	315	71	34	120	65.54
23.2	Financing social infrastructure	7	26	320	41	39	79	63.64
23.3	Legal hassles	24	12	297	63	37	77	63.57
23.4	Resistance to land acquisition	3	54	277	46	53	92	64.25

23.5	Financing R&R and land acquisition	8	62	289	37	37	23	61.52
23.6	Sustainable business model for regional development	26	43	286	48	30	13	60.60
23.7	Viability, gestation and financing of government projects	41	34	283	55	20	-21	59.03
23.8	Regulatory regime and investors' confidence	5	23	281	96	27	116	65.36
23.9	HRD capacity and enforcement	53	36	269	42	33	-34	58.43
23.10	Transparent, accountable, efficient and effective regulator	8	26	117	114	168	408	78.85
23.11	Technology, policy and procedural issues	3	9	283	66	72	195	69.00
23.12	Implementation challenges	2	21	268	91	51	168	67.76
Q.24	**Preference for regional location of property for living or business**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
24.1	Land should have the desirable land use as per master plan – residential, commercial, institutional, industrial. mixed land etc. and should be clearly incorporated in the zonal plan.	4	33	102	143	151	404	78.66
24.2	The site should be inside the master plan/ municipal boundary and is approved and fairly developed The land should have desirable higher FAR, ground coverage, ECS, permissible height	2	24	120	149	138	397	78.38
24.3	Adequate quantum of land parcels essential in development control norms	7	66	154	133	72	199	69.19
24.4	Site location: width of approach to the site and frontage of site.	7	70	106	142	108	274	72.66
24.5	Site location: reasonable distance from main road - 4 lane/ 6 lane expressway	27	59	73	112	162	324	74.91
24.6	Site location: distance from major habitation in the area	9	24	79	105	217	498	83.00
24.7	Site location: Its distance from bus stand, airport, railway station etc.	6	24	80	138	186	475	81.93
24.8	Availability of trunk infrastructure i.e. electric power, road lights, storm water sewer, along the road	5	25	65	153	185	488	82.54
24.9	Distance and availability from social city infrastructure like school, colleges, hospitals, police station or fire post etc.	10	16	58	133	216	529	84.43
23.10	Availability of public transport system i.e. bus/ MRT service/ local transport	4	17	54	133	225	558	85.77
Q.25	**Preference of Regional Conveniences of Property for Living or Business**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
25.1	Well defined and clear government policies, building bye-laws, rules and regulations, approval regime etc.	8	25	120	133	147	386	77.83
25.2	Concept of project/ area, aesthetics, architecture, landscape - greenery and picturesque surroundings, trees, parks etc	3	21	80	133	196	498	83.00
25.3	Absence of encumbrances like HT line, forest land, illegal construction, unauthorized	4	34	101	177	117	369	77.04

	occupation, etc.							
25.4	Nature of development in the surrounding area: Presence of similar interest groups (business, community, interest) inclusive development and neighborly feeling.	8	47	122	117	139	332	75.33
25.5	The title of the land should be clear and litigation free and there should be no risk in property transaction,	5	47	86	104	191	429	79.82
25.6	Level of economic activity in the surrounding area & availability of jobs for daily wager, skilled, semi-skilled and un-skilled workers. Availability of adequate white collar jobs for highly educated and knowledge worker / employment opportunities, self-employment opportunities, business/ trade opportunities in the area	4	20	68	102	239	552	85.50
25.7	Availability of domestic help, dhobi, barber, cook, safaiwala etc., in the area at reasonable rates, diharidarsetc	13	66	60	123	171	373	77.23
25.8	Life style, entertainment and quality of life - convenient, well manages and livable with easy access to amenities	7	31	63	117	215	502	83.18
25.9	Availability of different categories of rented accommodation at a reasonable rent	25	55	88	172	93	253	71.69
25.10	Good security and safety in the area with low crime rate,	6	14	95	184	144	446	80.06
Q.26	**Purchase Plan for Purchasing or Acquiring Property**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
26.1	Mainly through bank loans, gap funding/ margin money through own savings	6	30	110	100	187	432	79.95
26.2	Mainly through own savings, through bank or cash transaction	10	38	152	185	48	223	70.30
26.3	Purchase through construction linked plan - • Part advance, and • The remaining amount in deferred installments linked to the progress of construction through the Home loan scheme of a bank.	8	18	131	113	163	405	78.71
26.4	Purchase through Fixed plan – • Part advance, and • The remaining amount in deferred time bound fixed installments through; o Home loan scheme of a bank or; o Own savings.	14	26	161	174	59	239	71.04
26.5	Purchase through Flexi plan – • Part advance, and • The remaining amount in the deferred flexible installments through own savings.	21	32	176	147	57	187	68.68
26.6	Purchase through any of the above plans with assured return plan – • Part advance, and • Part amount in deferred time bound installments through the bank loan or own savings and	16	27	107	157	126	350	76.17

	• The remaining amount to be paid from the assured returns given by the builder, who takes the property on rent after completion of construction.							
Q.27	**Prospective usage and purpose of the property**	**Total**						
27.1	Residential property for self-use/ family use	252						
27.2	Residential property for renting out	115						
27.3	Residential property for investment purposes	164						
27.4	Commercial/ mixed use property for self-use/ family use	75						
27.5	Commercial/ mixed use property for renting out	74						
27.6	Commercial/ mixed use property for investment purposes/ speculation	114						
27.7	Commercial/ mixed use property for business	74						
27.8	Office / industrial property /IT space for business	28						
27.9	Institutional (school, college or hospital etc.) property for business	45						
27.10	Land for socio cultural /entertainment/religious purpose	47						
Q.28	**Advantages of Incorporating Stakeholder Viewpoint in the Development Process**	**1**	**2**	**3**	**4**	**5**	**Total**	**Percent-age**
28.1	Participatory feeling generated	12	38	75	151	157	403	78.61
28.2	Development owned by stakeholders	5	22	130	161	115	357	76.58
28.3	Fear of unknown	5	26	97	226	79	348	76.07
28.4	Decision making	4	33	89	207	100	366	76.90
28.5	Ensures rightful dues	5	23	119	175	111	364	76.81
28.6	Development proposed by stakeholders	14	29	96	118	176	413	79.07

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APPENDIX – II

QUESTION WISE ANALYSIS

Question wise Analysis: Q.5 Age (Years) as on 1st January 2013

Age	Total
<= 25	197
25.1-35	142
35.1-50	62
50.1-65	29
>65	3
Total	433

Age and Gender	Male	Female	Total
<= 25	86	112	197
25.1-35	41	101	142
35.1-50	38	24	62
50.1-65	18	11	29
>65	2	1	3
Total	185	248	433

Age and Area of Residence	Urban	Semi-urban	Rural	Total
<= 25	129	33	35	197
25.1-35	106	26	10	142
35.1-50	44	6	12	62
50.1-65	25	2	2	29
>65	2	0	1	3
Total	306	67	60	433

Age and Marital Status	Single	Married	Divorcee/ Widow(er)	Total
<= 25	146	51	0	197
25.1-35	40	101	1	142
35.1-50	9	52	1	62
50.1-65	1	27	1	29
>65	1	2	0	3
Total	197	233	3	433

Ageand Education / Professional Qualifications	Uneducated / Just Literate (can only read and write)	Primary school/ Middle School/ High school	Graduation/ Post-Graduation and other Professional education	Total
<= 25	1	42	154	197
25.1-35	0	10	132	142
35.1-50	0	9	53	62
50.1-65	0	7	22	29
>65	1	1	1	3
Total	2	69	362	433

Question wise Analysis: Q.6 Sex

Sex and Marital Status	Single	Married	Divorcee/ Widow(er)	Total
Male	76	107	0	**185**
Female	121	126	3	**248**
Total	**197**	**233**	**3**	**433**

Sex and area of Residence	Urban	Semi-urban	Rural	Total
Male	126	22	37	**185**
Female	180	45	23	**248**
Total	**306**	**67**	**60**	**433**

Sex and Education / Professional Qualifications	Uneducated / Just Literate (can only read and write)	Primary school/ Middle School/ High school	Graduation/ Post-Graduation and other Professional education	Total
Male	1	42	142	**185**
Female	1	27	220	**248**
Total	**2**	**69**	**362**	**433**

Sex and Age (Years) as on 1st January 2013	<=25	25.1-35	35.1-50	50.1-65	>65	Total
Male	84	42	39	18	2	**185**
Female	113	100	23	11	1	**248**
Total	**197**	**142**	**62**	**29**	**3**	**433**

Question wise Analysis: Q.7Area of Residence

Area of Residence/Sex	Male	Female	Total
Urban	127	180	**307**
Semi-urban	21	45	**66**
Rural	37	23	**60**
Total	**185**	**248**	**433**

Area of Residence/Marital Status	Single	Married	Divorcee/ Widow(er)	Total
Urban	124	180	3	**307**
Semi-urban	31	35	0	**66**
Rural	40	20	0	**60**
Total	**197**	**233**	**3**	**433**

Area of Residence/Education / Professional Qualifications.	Uneducated / Just Literate (can only read and write)	Primary school/ Middle School/ High school	Graduation/ Post-Graduation and other Professional education	Total
Urban	0	35	272	**307**
Semi-urban	0	14	52	**66**
Rural	2	19	39	**60**
Total	**2**	**69**	**362**	**433**

Area/ Age (Years) as on 1st January 2013	<=25	25.1-35	35.1-50	50.1-65	>65	Total
Urban	128	108	44	25	2	**307**
Semi-urban	34	24	6	2	0	**66**
Rural	35	10	12	2	1	**60**
Total	**197**	**142**	**62**	**29**	**3**	**433**

Question wise Analysis: Q.9Education / Professional Qualifications

Education / Professional Qualifications. And Sex	Male	Female	Total
Uneducated / Just Literate (can only read and write)	1	1	**2**
Primary school/ Middle School/ High school	41	28	**69**
Graduation/ Post-Graduation and other Professional education	143	219	**362**
Total	**185**	**248**	**433**

Education / Professional Qualifications and area of Residence	Urban	Semi-urban	Rural	Total
Uneducated / Just Literate (can only read and write)	0	0	2	**2**
Primary school/ Middle School/ High school	36	14	19	**69**
Graduation/ Post-Graduation and other Professional education	271	52	39	**362**
Total	**307**	**66**	**60**	**443**

Education / Professional Qualifications and Marital Status	Single	Married	Divorcee/ Widow(er)	Total
Uneducated / Just Literate (can only read and write)	2	0	0	**2**
Primary school/ Middle School/ High school	39	28	2	**69**
Graduation/ Post-Graduation and other Professional education	156	205	1	**362**
Total	**197**	**233**	**3**	**433**

Education / Professional Qualifications and Age (Years) as on 1st January 2013	<=25	25.1-35	35.1-50	50.1-65	>65	Total
Uneducated / Just Literate (can only read and write)	1	0	0	0	1	2
Primary school/ Middle School/ High school	42	10	9	7	1	69
Graduation/ Post-Graduation and other Professional education	154	132	53	22	1	362
Total	197	142	62	29	3	433

APPENDIX – III

Ph.D. QUESTIONNAIRE

A BROAD STRATEGIC FRAMEWORK FOR DEVELOPMENT THROUGH REGIONAL MASTER PLANNING – A CRITICAL STUDY WITH REFERENCE TO GREATER MOHALI REGION OF PUNJAB

The questionnaire is designed to collect data/views of stakeholders on their view on development through planning and their expectations.

(With reference to the entire Greater Mohali Region - SAS Nagar, Kharar, Banur, Mullanpur, Derabassi, Zirakpur, and Chandigarh)

1.	**Serial No.**						
2.	**Name of the person**						
3.	**Address/ Contact Details**						
	No, road/ Sector			**Phone (optional)**			
	Village / City			**Email ID (optional)**			
4.	**Area represented, Please tick (✓) one of the options.**						
		1.SAS Nagar		2. Zirakpur		3. Kharar	
		4. Banur		5. Mullanpur		6. Derabassi	
		7. Chandigarh		8. Panchkula		9. Others (Investor)	
5.	**Age (Years) as on 1st January 2013**						
6.	**Sex**	1. Male		2. Female			
7.	**Area of Residence**	1. Urban		2. Semi-Urban		3. Rural	
8.	**Marital Status**	1. Single		2. Married		3. Divorcee/ Widow(er)	
9.	**Education / Professional Qualifications. Please tick (✓) one option.**						
	1. Uneducated / Just Literate (can only read and write)		2. Primary school/ Middle School/ High school		3. Graduation/ Post-Graduation and other Professional education		
10.	**Which group do you belong to by profession / occupation** **Please tick (✓) the option. You can select more than one option.**						
	1. Group -1 :Land Resources Land owner Land assembler(Land bank for development)						

	2. <u>Group-2</u> : Developer and Government Builder/ Developer Licensee / Colonizer Property dealer/ Marketing / Sales Person Administrator/ Official of Development Authority/ Approval Agencies/ Planner/ Engineer/ Architect / Estate Official / any other	**3. <u>Group -3</u> : Buyer and Investor of property** Citizen Government /Public Sector Technical professional - engineer / doctors/ IT/ Architect/ consultant etc. Housewife In Private Service/Self-employed/Retired person Academics/ Teaching/ Student Industrialist / Entrepreneur/ Businessman Other Profession - Lawyer/ CA / CS / Management/ Consultant etc.

11.	**Profession of the Spouse. Please tick (⍰) one option.**			
	1. Unemployed	2. Employed	3. Self-employed	
12.	**Average Household Income Per Year from all sources (Rs.) Please tick (⍰) one option.**			
	1. Non taxpayer	2. Low taxpayer (10%)	3. High Tax payer (30%)/. Wealth Tax payee	
13.	**How much land/property does your family/ company owns (in Acres)?**			
	1. 0 – 1 Acre	2. 1 to 10 Acres	3. 10 to 100 Acres	4. >100 Acres
14.	**How much income do you get from the land per acre every year? (in rupees/ year))**			
	1. <Rs.10,000	2. Rs. 10,000 to 50,000	3. Rs. 50,000 to Rs. 2,00,000	4. >Rs. 2,00,000

	<u>INSTRUCTIONS TO FILL QUESTIONAIRE-</u> i. Please read the individual questions and their sub-parts, thoroughly before responding. ii. Associate your responses in relation to the Greater Mohali region including Chandigarh. iii. Your responses have to be indicated in the columns provided on the right hand side of the questions: **<u>In COLUMN 1</u>** please give ratings on a **<u>5 point Likert scale of</u> (1,2,3,4,&5) by ticking (✓) one of the five boxes in column no. 1 where:** **1 means you agree** **2 means you agree, (it is relevant)** **3 means you agree, (it is relevant/ significant)** **4 means you agree, (It is relevant/ significant/ important)** **5 means you strongly agree, (it is most relevant/ significant/ important)**	Give ratings on a 5 point Likert scale
15.	**Please rate the following <u>design (intangible) factors of Regional Master Planning</u> for the successful development?**	**COLUMN-1** Give ratings on a 5 point Likert scale

15.1	**Overall well planned rather than hap-hazard, growth-** with well placed Residential, Industrial, Commercial, institutional, Green and transport Land usage etc.	**1 2 3 4 5**
15.2	**Provision for balanced Demographics**–planned population distribution after taking into consideration - density, Sex ratio, presence of all age groups ie children can find education, job & lifestyle opportunities, pre thought for differently abled, poor or deprived persons to ensure equal opportunities to one and all.	**1 2 3 4 5**
15.3	**Beautiful Urban Architecture –** good looking, aesthetical, well landscaped with good architecture planning, street picture & city scape.	**1 2 3 4 5**
15.4	**Taking along the stakeholders,** i.e. the land owners, developers and end users, in conceiving the regional plan by making it a **participative approach** with inbuilt respect for stakeholder aspirations	**1 2 3 4 5**
15.5	**Provision for high economic activity**- Business opportunities in say services sector, SME, manufacturing, industrial, IT, retail & trade etc.(SEZ, IT Parks, Industry Park)	**1 2 3 4 5**
15.6	**More employment opportunities** and job creation.	**1 2 3 4 5**
15.7	**Better return on Investment** – Appreciation of the land/ property value due to better planning, utilization of land resources, and faster development of the region.	**1 2 3 4 5**
15.8	**Incorporation lifestyle expressions –** like hotels, clubs, Pubs, Multiplexes, Shopping Malls, multi-gyms, green space, amusement parks, high-rise buildings, outlets for food, beverage, shopping and entertainment. etc.	**1 2 3 4 5**
15.10	**Opportunities and environment for creating Intellectual Capital and Innovation-**like Knowledge city, Research, Development and Management Institutions, incubation centres to inculcate Agricultural , white revolution, and animal husbandry etc.	**1 2 3 4 5**
15.11	**Safety and security**- provision for more secure and safe environment	**1 2 3 4 5**
16.	**Q. Please rate the following <u>infrastructure components of Regional Master Planning</u> for the successful development.**	**COLUMN-1** Give ratingson a 5 point Likert scale
16.1.	**Planning/ Provision for Infrastructure-** infrastructure precedes the development after better design, modern technologies and professional construction.	**1 2 3 4 5**
16.2.	**Planning/ Provision of Transport Infrastructure -** Highways, expressway, roads, railways, container services, domestic and International Airport facility and connectivity with public transport, buses, taxies, rickshaws, metro etc .	**1 2 3 4 5**
16.3.	**Planning/ Provision of trunk line for services**-Power grids, electricity supply, telephone, cable, internet , water supply, rain drainage , sewerage systems, sewage treatment, solid waste management etc.	**1 2 3 4 5**
16.4.	**Planning/ Provision for Socio- cultural-health and sports Infrastructure** – Theaters, art galleries, Dispensaries, hospitals, sports facilities, community centres, Crèches, night shelters **and public conveniences** etc.	**1 2 3 4 5**

16.5.	**Planning/ Provision for school / higher/ professional education opportunities-** Universities, Engineering/ Medical/ Law/ MBA institutions etc. Also including Polytechnics, Vocational Training, Industrial Training Institutions, Skill Development Centers etc.	**1 2 3 4 5**
16.6.	**Better provision for affordable housing for all categories**	**1 2 3 4 5**
16.7.	**Care for environment and sustainability-** Better preservation of the local ecological environment, i.e. natural drainage system, forests, lakes, ponds, flora and fauna through the proper planning of the larger areas of surrounding towns.	**1 2 3 4 5**
16.8.	**Provision for large Regional markets** –Central business districts, commercial shopping, Wholesale trades,Bulk Material Markets, Vegetable, Grain, Fruit markets, Farmers Mandis and hawkers etc.	**1 2 3 4 5**
17.	**Q. Please rate the following indicators (parameters) as the measures of the development of a region?**	**COLUMN-1** Give ratings on a 5 point Likert scale
17.1.	**Infrastructure Index** - Roads, Water, sewrage, drainage, Gas Pipelines, Fibre Optic Backbone per unit area etc.	**1 2 3 4 5**
17.2.	**Average commute/ travel time in the city,**	**1 2 3 4 5**
17.3.	**Ease of doing business in region:** Govt. Policies, approvals, sanctions, permissionsetc.	**1 2 3 4 5**
17.4.	**Average Per Capita income,**	**1 2 3 4 5**
17.5.	**Availability and cost of energy per head** – Fuel, electricity, gas/ LPG	**1 2 3 4 5**
17.6.	**Average Availability/ consumption of other resources** - Water per day per head,	**1 2 3 4 5**
17.7.	**Average Per Capita expenditure /Average Cost of living–** Rentals, transport, food, essential commodities, entertainment, medical care, schooling, etc.	**1 2 3 4 5**
17.8.	**Literacy rate, quality of education and skill development-** say seats in educational institutes per 1,00,000 population, Teacher-student ratio etc.	**1 2 3 4 5**
17.9.	**Number of Job Opportunities per 1,00,000 population in secondary and tertiary sectors** like IT, Film, Manufacturing, Government, Tourism etc., Rate of Un-employment, Average salary etc.	**1 2 3 4 5**
17.10.	**Availability of Hospital beds –** say per 1,00,000 population	**1 2 3 4 5**
18.	**Q. How do you rate Development through Integrated Regional planning as compared to local town planning on following factors?**	**COLUMN-1** Give ratings on a 5 point Likert scale
18.1.	**Regional integrated planning would bring down duplication of efforts**, bring **clarity about the jurisdictions and responsibilities of various development/ regulatory agencies/ authorities** and thus reduce the overall cost and time of	**1 2 3 4 5**

	creation and maintenance of infrastructure as compared to when it is done by each town separately.	
18.2.	**Regional planning process would result into appreciation of land value, increased business velocity and improvement in the living standards** due to overall planning, optimal allocation and use of resources etc. in regional plan. As bigger development brings better returns. This would be better than individual municipal committees working independently without a regional outlook.	**1 2 3 4 5**
18.3.	Since in the regional planning process the entire land and other resources are earmarked, the approval process for all future projects become objective and citizen friendly. This will **vastly improve the procedures and make the approval process easier and more transparent.** This may not be possible in case individual town wise master planning is resorted to**.**	**1 2 3 4 5**
18.4.	**In the regional planning process the regulation of development process would be far easier** and according to rules, as people would be aware of the land use in various pockets which will determine the land value in that pocket. This will help reduce the unnecessary violations. The availability of legally developed land would also reduce the violations, regulatory requirements and court interventions. **The enforcement of planned development would be much easier for the regulators and any legal action for violation would be able to stand the Judicial/ Legal scrutiny** in case of regional planning as it would be for the good of the public at large rather than serving the interest of the smaller areas/ groups as in case of local planning.	**1 2 3 4 5**
18.5.	**In the long-run a planned growth of the entire region is more cost effective** than the isolated development of small individual areas/ towns/ localities or unorganized and organic growth in smaller pockets and thereafter trying to integrate these smaller areas into the larger region.Through regional planning it would be possible to identify the bigger infrastructure projects, which are otherwise not so viable through the State funding, for execution on Public Private Partnership mode on longer time frame. This may not be possible in case of individual townwise master planning is resorted to. The State's financial resources thus spared could be used for other important developmental needs of the local plans.	**1 2 3 4 5**
18.6.	**Better accessibility & connectivity and opening up of hinterland**is one of the important priorities for a **region to grow.** This may not be possible in case individual townwise master planning is resorted to**.** Therefore, the regional planning should be preferred over local planning, even if its implementation would require more financial resources.	**1 2 3 4 5**
18.7.	Provision for basic infrastructure i.e. electric power, potable water, public health services & trunk infrastructure for all towns in the region is technically more sound and balanced in **the integrated planning process rather than individual towns and localities** which may get marginalized and localized preferences.	**1 2 3 4 5**
18.8.	**Provision of regional planning would promote business, trade & industry** ensuring better profits to the stakeholders whereas the local planning/ town planning would not be able to ensure this. Therefore, the stakeholders would promote and support the concept of regional planning.	**1 2 3 4 5**
19.	**ONLY Developer and Government (GROUP 2) TO ANSWER** **Q. Rate the significance of each of the following <u>barrier/ hindrance</u> for**	**COLUMN-1** Give ratings on

	effective regional urbanization and Planned Development?	a 5 point Likert scale
19.1	**Lack of Awareness & education** of stakeholder regarding the benefits of the development through regional planning.	**1 2 3 4 5**
19.2	**Forced to take a piecemeal approach rather that an approach of regional comprehensive planning** for the entire region and development thereof.	**1 2 3 4 5**
19.3	**Long procedures and delay** in finalizing the regional master plans and development projects in a time bound manner. Red tapism and involvement of multi- agencies.	**1 2 3 4 5**
19.4	**Lack of initiative and participation from the stakeholders** viz, Government officials, local community - neither involved, committed nor have enough sustaining interest.	**1 2 3 4 5**
19.5	**Transparent and acceptable method of acquiring the land** by the Government or the developers that can also be acceptable to land owner at optimum cost.	**1 2 3 4 5**
19.6	**Shortage of funds / Private public partnership models** with the Government forcreating the basic infrastructure required for the planned regional development	**1 2 3 4 5**
19.7	**Escalation of rates by the intermediaries** and property dealers through hoax deals and thereby making the projects unviable ab-initio.	**1 2 3 4 5**
19.8	**Pressure from vested interest groups, political and business hype associated,** including the resistance by the forces benefiting from corruption, which continuously hamper the success of any regional planning & development	**1 2 3 4 5**
20.	**ONLY Land Resources (GROUP 1) TO ANSWER** **Q. How are you <u>presently utilizing</u> the land?** ***Please tick (✓) the option(s) given below. you can select more than one options***	Please tick
20.1.	Agriculture, vegetable, grains, cash crops and floriculture, etc.	
20.2.	Dairy farming, Poultry farming and Fisheries etc.	
20.3.	The land is lying fallow	
20.4.	Given on rent/ lease to other party	
20.5.	Household industry or small scale industry/ trade	
20.6.	Built infrastructure for rent i.e. Marriage palace, hostel etc	
20.7.	Built Farm House/ Residential	
20.8.	Institutional use – school, panchayatghar, dispensary, sorts ground etc.	
20.9.	Food processing units like rice shellar etc.	
20.10	Any other purpose, please specify	
21.	**ONLY Land Resources (GROUP 1) TO ANSWER** **Q. What are the reasons because of which <u>you may part with your land for development</u>?** ***Please tick (✓) the option(s) given below. you can select more than one options***	Please tick

21.1.	If the land is **infertile, fallow,kaller, undulating, unusable and unsuitable** for cultivation or other use including lack of irrigation water.	
21.2.	If the Land is **disputed** or under litigation.	
21.3.	If the Land is shared and **not demarcated properly**. Land is not in own name, but **in the name of ancestors** or relatives and there are ownership issues.	
21.4.	Pressure of family members, especially the **younger blood,** who are not keen on farming and looking for better lifestyle through quick money or an alternate business or educated children **do not want to engage in agriculture.**	
21.5.	Pressure of **market forces** as land cost has escalated due to nearness to development.	
21.6.	If the **Land holding is too fragmented/ small** for agriculture to be viable or higher agriculture inputs.	
21.7.	If the **family is under debt/ loan.** The land is already mortgaged and the family is unable to pay back the debt because of unviable agriculture or inadequate income from the land to make two ends meet..	
21.8.	**Because of the unavailability of farm labour at affordable/ viable rates**	
21.9.	I may support the acquisition of land **for**	
	• **Transport infrastructure** - airport, bus stand, railway stations, container services etc.	
	• **Setting up new industry** where jobs would be available for younger generations	
	• **A housing/ development project** where i am made a partner **/allottee**	
	• **Social, education & health infrastructure** like hospitals, schools, colleges, play grounds government offices, etc.	
	• **Religious temples, gurudwara, old age homes**, etc.	
21.10.	**It may be easier to acquire my land** • If the land owner **get appropriate compensation** for the land at its market value.	
	• **If my family livelihood is ensured for rest of the life** or children are facilitated alternative livelihood	
	• **If I am given financial advice or package** so that proper utilization of compensation can be made	
	• **If alternate roof on head of the land owner is assured.**	
22.	**ONLY Land Resources, Developer and Government (GROUP 1 & 2) TO ANSWER** **Q. Please rate the following methods for sale, purchase or acquisition of land for development?**	Give ratings on a 5 point Likert scale
22.1.	Land Acquisition by Government for **a lumpsum payment of compensationat the market price** of land along with the **additional solacium** and/or a G**overnment job for a family member.**	**1 2 3 4 5**

22.2.	Land Acquisition by Government for the part payment of **compensation at the market price** along with **additional solacium,** and **r**emaining compensation in equal monthly installments with interest for next 20 years/ life to **ensure regular income for the family.**	**1 2 3 4 5**
22.3.	Land Acquisition by Government for the part **payment of compensation at the market price** along with **additional solacism** and a **rehabilitation package** for **setting up an alternative means of livelihood for your family.**	**1 2 3 4 5**
22.4.	Land Acquisition by Government for the **part payment of compensation at the market price** along with **additional solacism** and remaining **in kind in lieu of cash,** say some **portion of the developed and approved land/ built modules.**	**1 2 3 4 5**
22.5.	I would like to participate in Land Acquisition through the **land pooling scheme** of Government where a **residential and /or commercial plot in the developed area will be allotted to in proportion to the land pooled.**	**1 2 3 4 5**
22.6.	I would like to sell through **direct negotiations** to the private parties at the market value of land and get **upfront payments directly from the buyers.**	**1 2 3 4 5**
22.7.	I would like to sell through **direct negotiation to the private parties** at the market value with **part upfront payment** and part payment in **assured long term installments** by the buyers as upfront money is likely to be spent away in no time.	**1 2 3 4 5**
22.8.	**Cashless partnership** with Government/ Private Partner in project/ Joint Venture with the market cost of the land as your equity investment in the project or share in profit.	**1 2 3 4 5**
22.9.	**Partnership with Private Partner** in the project/ Joint Venture with the market cost of land as equity investment in the project and get return in kind in lieu of land, say some portion of the developed and approved land/ built modules.	**1 2 3 4 5**
22.10.	Any other (please specify)	**1 2 3 4 5**
23.	**ONLY Developer and Government (GROUP 2) TO ANSWER** **Q. Please rate the following <u>challenges</u> thrown by the Regional Planning for implementing Development?**	**COLUMN-1** Give ratings on a 5 point Likert scale
23.1.	Finding funds/ making a budget provision for ultra-high cost Transport Infrastructure like airports, MRTS, New Railway line and railway stations, freight corridor, ISBT etc. finding external development charges very less. Source of funding of essential trunk infrastructure and its maintenance in case the land is being developed, sold and profit earned by the private sector	**1 2 3 4 5**
23.2.	Finding funds/ making adequate budget provisions for the tertiary health care infrastructure, institutes of higher education, health, sports & social infrastructure, convention centres etc. for the region	**1 2 3 4 5**
23.3.	Frequent intervention by courts and other statutory bodies posing numerous legal challenges and delays	**1 2 3 4 5**
23.4.	Land acquisition process including the dispute resolution, compensation & litigations in view of the resistance from the stakeholders of land	**1 2 3 4 5**
23.5.	Funding the cost of land acquisition, including the relief & rehabilitation package acceptable to the stakeholders of land	**1 2 3 4 5**

23.6.	Creating a sustainable business model for regional development through PPP, State funding or other mechanism	**1 2 3 4 5**
23.7.	Gestation period and viability of the Government's own projects in the wake of tough competition from the private sector which are necessary to generate funds.	**1 2 3 4 5**
23.8.	Regulating the regional level real-estate market for establishing the credibility and winning the investor's' confidence by Capping the developers sole profit motive Ensuring protection of buyers from un-scruples builders, property dealers etc., Handling challenges of unstable and precarious real estate market	**1 2 3 4 5**
23.9.	Enforcement of Regulations in the planning areas in view of lean and thin organization	**1 2 3 4 5**
23.10.	Transparent, accountable, efficient and effective estate office/ regulator	**1 2 3 4 5**
23.11.	Mechanism for bold or fast policy level initiatives & decision making progressive & citizen friendly rules, regulations, building byelaws to keep up with current trends/ Technology	**1 2 3 4 5**
23.12.	Challenge of delivery in a time bound and transparent manner in the environment of public mistrust, media activism, RTI, judicial activism etc.	**1 2 3 4 5**
24.	**ONLY Developer / Government and Buyers of property (GROUP2 & 3)TO ANSWER** **Q. Rate the following locational factors for you to <u>select a property and prefer a region for your own living or business</u>?**	**COLUMN-1** Give ratings on a 5 point Likert scale
24.1	**Land should have the desirable Land Use as per master plan –** residential, commercial, institutional, industrial. mixed land etc.**and should be clearly incorporated in the zonal plan**.	**1 2 3 4 5**
24.2	The **site should be inside the Master plan/ Municipal boundary and is approved** and fairly developed The land should have **desirable higher FAR, Ground Coverage, ECS, Permissible height**	**1 2 3 4 5**
24.3	**Adequate quantum of land parcels essential** in development control norms	**1 2 3 4 5**
24.4	**Site Location:Width of approach to the site and frontage of site.**	**1 2 3 4 5**
24.5	**Site Location:reasonable Distance from main road -** 4 lane/ 6 lane expressway	**1 2 3 4 5**
24.6	**Site Location: Distance from major habitation** in the area	**1 2 3 4 5**
24.7	**Site Location:** Its distance from bus stand, airport, railway station etc.	**1 2 3 4 5**
24.8	**Availability of Trunk Infrastructure** i.e. electric power, road lights, storm water sewer, along the road	**1 2 3 4 5**
24.9	**Distance and availability from social city infrastructure** like school, colleges, hospitals, police station or fire post etc.	**1 2 3 4 5**

24.10	**Availability of public transport system** i.e. Bus/ MRT Service/ local transport	**1 2 3 4 5**
25.	**ONLY Developer / Government and Buyers of property (GROUP2 &3)TO ANSWER** **Q. Rate following intangible convenience for you to <u>select a property and prefer a region for your own living or business</u>?**	Give ratings on a 5 point Likert scale
25.1.	**Well defined and clear Government Policies, building bye-laws, rules and regulations, approval regime etc.**	**1 2 3 4 5**
25.2.	**Concept of project/ area, aesthetics, architecture, landscape -** Greenery and picturesque surroundings, trees, parks etc	**1 2 3 4 5**
25.3.	**Absence of encumbrances** like HT line, forest land, illegal construction, unauthorized occupation, etc.	**1 2 3 4 5**
25.4.	Nature of development in the **surrounding area:** Presence of similar interest groups (business, community, interest) Inclusive development and neighborly feeling.	**1 2 3 4 5**
25.5.	**The title of the land should be clear** and **litigation free and there should be no risk in property transaction,**	**1 2 3 4 5**
25.6.	**Level of economic activity in the surrounding area & availability of jobs for daily wager , skilled, semi-skilled and un-skilled workers.Availability of adequate white collar jobs for highly educated and knowledge worker / Employment Opportunities Self-employment opportunities**, business/ trade opportunities in the area	**1 2 3 4 5**
25.7.	**Availability of domestic help, dhobi, barber, cook, safaiwala etc.**, in the area at reasonable rates, diharidarsetc	**1 2 3 4 5**
25.8.	**Life style, entertainment and quality of life - Convenient, well manages and livable with easy access to amenities**	**1 2 3 4 5**
25.9.	**Availability of different categories of rented accommodation** at a reasonable rent	**1 2 3 4 5**
25.10.	**Good security and safety** in the area with low crime rate,	**1 2 3 4 5**
26.	**ONLY BUYERS of property (GROUP 3)TO ANSWER** **Q. What purchase plan you prefer to use while purchasing/ acquiring a property?**	**COLUMN-1** Give ratings on a 5 point Likert scale
26.1.	Mainly through **Bank Loans,** gap funding/ margin money through own savings	**1 2 3 4 5**
26.2.	Mainly through **own savings,** through bank or cash transaction	**1 2 3 4 5**
26.3.	Purchase through **Construction linked plan** - • Part advance, and • the remaining amount in deferred installments linked to the progress of construction through the Home loan scheme of a Bank	**1 2 3 4 5**

26.4.	Purchase through **Fixed plan** –
	• Part advance, and
	• the remaining amount in deferred time bound fixed installments through
	  o Home loan scheme of a Bank or
	  o Own savings.
		1 2 3 4 5

26.5.	Purchase through **Flexi plan –** • Part advance, and • the remaining amount in the deferred flexible installments through own savings	**1 2 3 4 5**
26.6.	Purchase through any of the above plans with **Assured Return Plan –** • Part advance, and • part amount in deferred time bound installments through the Bank loan or own savings and • the remaining amount to be paid from the assured returns given by the builder, who takes the property on rent after completion of construction.	**1 2 3 4 5**
27.	**ONLY BUYERS of property (GROUP 3)TO ANSWER** **Q. What is the nature and purpose of the property you may like to purchase/ acquire?** ***Please tick (✓) the option(s) given below. you can select more than one options***	**Please tick**
27.1	Residential property for self-use/ family use	**1 2 3 4 5**
27.2	Residential property for renting out	**1 2 3 4 5**
27.3	Residential property for investment purposes	**1 2 3 4 5**
27.4	Commercial/ Mixed use property for self-use/ family use	**1 2 3 4 5**
27.5	Commercial/ Mixed use property for renting out	**1 2 3 4 5**
27.6	Commercial/ Mixed use property for investment purposes/ speculation	**1 2 3 4 5**
27.7	Commercial/ Mixed use property for business	**1 2 3 4 5**
27.8	Office / Industrial property /IT space for business	**1 2 3 4 5**
27.9	Institutional (School, College or hospital etc) property for business	**1 2 3 4 5**
27.10	Land for socio cultural /entertainment/religious purpose	**1 2 3 4 5**
28.	**Q. Kindly rank the advantages of incorporating stakeholder viewpoint in the process?**	Give ratings on a 5 point Likert

		scale				
28.1.	**Participatoryfeeling generated**- stakeholder feels involved not alienated because they have participated in the process.	**1**	**2**	**3**	**4**	**5**
28.2.	**Development owned by stakeholders**: Due to involvement in the regional plan and development formulation process the stakeholder feels sense of ownership hence resistance to development is less likely.	**1**	**2**	**3**	**4**	**5**
28.3.	**Fear of unknown:** The feeling of unexpected and the resultant anxiety is reduced as the benefits or loss becomes a known element.	**1**	**2**	**3**	**4**	**5**
28.4.	**Decision making:** Since the benefits or loss is a known element timely future planning can be done by the stakeholder.	**1**	**2**	**3**	**4**	**5**
28.5.	**Ensures rightful dues:** As the proposed development is known transparently, persons with prior information can not deprive the stakeholder of its rightful dues.	**1**	**2**	**3**	**4**	**5**
28.6.	**Development proposed by stakeholders**: As the proposal includes stakeholders suggestions and requirements the Regional plan and Development becomes **the stakeholders' proposal**.	**1**	**2**	**3**	**4**	**5**

APPENDIX – IV

SHORT QUESTIONNAIRE HEADINGS AND SUB HEADINGS

For presenting data and for ease of understanding, the questions fromquestionnaire have been simplified by given brief essence of core concept. The same for key PSA questions are as laid out hereunder:

Question and Sub-Components		**Brief essence of core concept**
Q. 15	**Please rate the following <u>design (intangible) factors of regional master planning</u> for the successful development?**	**Design (intangible) components of RMP**
15.1	**Overall well planned rather than hap-hazard, growth-** with well placed Residential, Industrial, Commercial, institutional, Green and transport Land usage etc.	Overall well planned rather than hap-hazard growth
15.2	**Provision for balanced Demographics**–planned population distribution after taking into consideration - density, Sex ratio, presence of all age groups i.e. children can find education, job and lifestyle opportunities, pre thought for differently abled, poor or deprived persons to ensure equal opportunities to one and all.	Provision for balanced demographics
15.3	**Beautiful Urban Architecture –** good looking, aesthetical, well landscaped with good architecture planning, street picture and city scape.	Beautiful urban architecture
15.4	**Taking along the stakeholders,** i.e. the land owners, developers and end users, in conceiving the regional planby making it a **participative approach** with inbuilt respect for stakeholder aspirations	Taking along the stakeholders
15.5	**Provision for high economic activity**- Business opportunities in say services sector, SME, manufacturing, industrial, IT, retail and trade etc.(SEZ, IT Parks, Industry Park)	Provision for high economic activity
15.6	**More employment opportunities** and job creation	More employment opportunities
15.7	**Better return on Investment** – Appreciation of the land/ property value due to better planning, utilization of land resources, and faster development of the region.	Better return on investment
15.8	**Incorporation lifestyle expressions –** like hotels, clubs, Pubs, Multiplexes, Shopping Malls, multi-gyms, green space, amusement parks, high-rise buildings, outlets for food, beverage, shopping and entertainment. etc.	Incorporation of lifestyle expressions
15.9	**Opportunities and environment for creating Intellectual Capital and Innovation**-like Knowledge city, Research, Development and Management Institutions, incubation centres to inculcate Agricultural, white revolution, and animal husbandry etc.	Opportunities and environment for creating intellectual capital and innovation
15.10	**Safety and security**- provision for more secure and safe environment	Safety and security

Question and Sub-Components		Brief essence of core concept
Q. 16	**Please rate the following <u>infrastructure components of Regional Master Planning</u> for the successful development.**	**Infrastructure (tangible) components of RMP**
16.1	**Planning/ Provision for Infrastructure-**infrastructure precedes the development after better design, modern technologies and professional construction..	Well designed and professionally constructed infrastructure with modern technology
16.2	**Planning/ Provision of Transport Infrastructure -** Highways, expressway, roads, railways, container services, domestic and International Airport facility and connectivity with public transport, buses, taxies, rickshaws, metro etc .	Transport Infrastructure
16.3	**Planning/ Provision of trunk line for services**-Power grids, electricity supply, telephone, cable, internet , water supply, rain drainage , sewerage systems, sewage treatment, solid waste management etc.	Trunk lines for utility services
16.4	**Planning/ Provision for Socio- cultural-health and sports Infrastructure** – Theaters, art galleries, Dispensaries, hospitals, sports facilities, community centres, Crèches, night shelters **and public conveniences** etc.	Socio- cultural-health- sports infrastructure and public conveniences
16.5	**Planning/ Provision for school / higher/ professional education opportunities-** Universities, Engineering/ Medical/ Law/ MBA institutions etc. Also including Polytechnics, Vocational Training, Industrial Training Institutions, Skill Development Centers etc.	Educational infrastructure
16.6	**Better provision for affordable housing for all categories**	Affordable housing for all
16.7	**Care for environment and sustainability-** Better preservation of the local ecological environment, i.e. natural drainage system, forests, lakes, ponds, flora and fauna through the proper planning of the larger areas of surrounding towns	Environment and sustainability
16.8	**Provision for large Regional markets** –Central business districts, commercial shopping, Wholesale trades, Bulk Material Markets, Vegetable, Grain, Fruit markets, Farmers Mandis and hawkers etc.	Large regional markets

Question and Sub-Componants		Brief essence of core concept
Q. 17	**Please rate the following indicators (parameters) as the measure of the development of a region?**	**Indicators as measure of development**
17.1	**Infrastructure Index** - Roads, Water, sewerage, drainage, Gas Pipelines, Fibre Optic Backbone per unit area etc.	Infrastructure Index
17.2	**Average commute/ travel time in the city**.	Average commute time
17.3	**Ease of doing business in region:** Govt. Policies, approvals, sanctions, permissionsetc.	Ease of doing business
17.4	**Average Per Capita income**	Average per capita income
17.5	**Availability and cost of energy per head** – Fuel, electricity, gas/ LPG	Average cost of energy per head
17.6	**Average Availability/ consumption of other resources** - Water per day per head	Averageavailability/ consumption of other resources
17.7	**Average Per Capita expenditure /Average Cost of living–** Rentals, transport, food, essential commodities, entertainment, medical care, schooling, etc.	Average per capita expenditure /average cost of living
17.8	**Literacy rate, quality of education and skill development-** say seats in educational institutes per 1,00,000 population, Teacher-student ratio etc.	Literacy rate, quality of education and skill development
17.9	**Number of Job Opportunities per 1,00,000 population in secondary and tertiary sectors** like IT, Film, Manufacturing, Government, Tourism etc., Rate of Un-employment, Average salary etc.	Jobs in secondary and tertiary sectors
17.10	**Availability of Hospital beds –** say per 1,00,000 population	Hospital beds/ population

Question and Sub-Components		Brief essence of core concept
Q. 18	**How do you rate <u>Development through integrated regional planning as compared to local town planning on following factors?</u>**	**Regional versus local development**
18.1	**Regional integrated planning would bring down duplication of efforts**, bring **clarity about the jurisdictions and responsibilities of various development/ regulatory agencies/ authorities** and thus reduce the overall cost and time of creation and maintenance of infrastructure as compared to when it is done by each town separately.	Clear Jurisdiction breeds easy maintenance at less cost and Regulatory comfort
18.2	**Regional planning process would result into appreciation of land value, increased business velocity and improvement in the living standards** due to overall planning, optimal allocation and use of resources etc. in regional plan. As bigger development brings better returns. This would be better than individual municipal committees working independently without a regional outlook.	RMP enables bigger development, better business, bigger return
18.3	Since in the regional planning process the entire land and other resources are earmarked, the approval process for all future projects become objective and citizen friendly. This will **vastly improve the procedures and make the approval process easier and more transparent.** This may not be possible in case individual town wise master planning is resorted to**.**	Defined parameters enables transparency and citizen friendly approvals
18.4	**In the regional planning process the regulation of development process would be far easier** and according to rules, as people would be aware of the land use in various pockets which will determine the land value in that pocket. This will help reduce the unnecessary violations. The availability of legally developed land would also reduce the violations, regulatory requirements and court interventions. **The enforcement of planned development would be much easier for the regulators and any legal action for violation would be able to stand the Judicial/ Legal scrutiny** in case of regional planning as it would be for the good of the public at large rather than serving the interest of the smaller areas/ groups as in case of local planning.	Legal supply of land enables easy enforcement and regulation
18.5	**In the long-run a planned growth of the entire region is more cost effective** than the isolated development of small individual areas/ towns/ localities or unorganized and organic growth in smaller pockets and thereafter trying to integrate these smaller areas into the larger region.Through regional planning it would be possible to identify the bigger infrastructure projects, which are otherwise not so viable through the State funding, for execution on Public Private Partnership mode on longer time frame. This may not be possible in case of individual town wise master planning is resorted to. The State's financial resources thus spared could be used for other important developmental needs of the local plans.	RMP enables cost effectiveness versusintegrated small areas into regions

Question and Sub-Components		Brief essence of core concept
Q. 18	**How do you rate <u>Development through integrated regional planning as compared to local town planning on following factors?</u>**	**Regional versus local development**
18.6	**Better accessibility and connectivity and opening up of hinterland**is one of the important priorities for a **region to grow.** This may not be possible in case individual town-wise master planning is resorted to**.** Therefore, the regional planning should be preferred over local planning, even if its implementation would require more financial resources.	RMP enables connectivity and access for opening up of hinterland
18.7	Provision for basic infrastructure i.e. electric power, potable water, public health services and trunk infrastructure for all towns in the region is technically more sound and balanced in **the integrated planning process rather than individual towns and localities** which may get marginalized and localized preferences	RMP enables technically sound, balanced growth and services
18.8	**Provision of regional planning would promote business, trade and industry** ensuring better profits to the stakeholders whereas the local planning/ town planning would not be able to ensure this. Therefore, the stakeholders would promote and support the concept of regional planning.	RMP promotes business, trade and industry and garner stakeholders'support

Question and Sub-Components		Brief essence of core concept
Q. 19	**Q. Rate the significance of each of the following <u>barrier/ hindrance</u> for effective regional urbanization and planned development?**	**Barrier/ hindrance to RMP and development**
19.1	**Lack of Awareness and education** of stakeholder regarding the benefits of the development through regional planning.	Lack of awareness and education
19.2	**Forced to take a piecemeal approach rather that an approach of regional comprehensive planning** for the entire region and development thereof.	Piecemeal not regional approach
19.3	**Long procedures and delay** in finalizing the regional master plans and development projects in a time bound manner. Red tapism and involvement of multi- agencies.	Long procedures, delay, red-tapismand multi-agency
19.4	**Lack of initiative and participation from the stakeholders**viz., Government officials, local community - neither involved, committed nor have enough sustaining interest.	Lack of initiative, interest and non-participation by stakeholders
19.5	**Transparent and acceptable method of acquiring the land** by the Government or the developers that can also be acceptable to land owner at optimum cost.	Transparency and acceptable method and cost of land acquisition
19.6	**Shortage of funds / Private public partnership models** with the Government for creating the basic infrastructure required for the planned regional development	Funds and implementation models for basic infra

Question and Sub-Components		Brief essence of core concept
Q. 19	**Q. Rate the significance of each of the following <u>barrier/ hindrance</u> for effective regional urbanization and planned development?**	**Barrier/ hindrance to RMP and development**
19.7	**Escalation of rates by the intermediaries** and property dealers through hoax deals and thereby making the projects unviable ab-initio.	Unviability through cost escalation and hoax
19.8	**Pressure from vested interest groups, political and business hype associated,** including the resistance by the forces benefiting from corruption, which continuously hamper the success of any regional planning and development	Corruption, pressure, resistance and vested interest

Question and Sub-Components		Brief essence of core concept
Q 23	**Q. Please rate the following <u>challenges</u> thrown by the Regional Planning for implementing Development?**	**Challenges in implementing RMP**
23.1	Finding funds/ making a budget provision for ultra-high cost Transport Infrastructure like airports, MRTS, New Railway line and railway stations, freight corridor, ISBT etc. finding external development charges very less. Source of funding of essential trunk infrastructure and its maintenance in case the land is being developed, sold and profit earned by the private sector	Financing and maintaining regional infrastructure in face of profiteering by private sector
23.2	Finding funds/ making adequate budget provisions for the tertiary health care infrastructure, institutes of higher education, health, sports and social infrastructure, convention centers etc. for the region	Financing social infrastructure
23.3	Frequent intervention by courts and other statutory bodies posing numerous legal challenges and delays	Legal hassles
23.4	Land acquisition process including the dispute resolution, compensation and litigations in view of the resistance from the stakeholders of land	Resistance to land acquisition
23.5	Funding the cost of land acquisition, including the relief and rehabilitation package acceptable to the stakeholders of land	Financing R&R andland acquisition
23.6	Creating a sustainable business model for regional development through PPP, State funding or other mechanism	Sustainable business model for regional development
23.7	Gestation period and viability of the Government's own projects in the wake of tough competition from the private sector which are necessary to generate funds.	Viability, gestation andfinancing of government projects
23.8	Regulating the regional level real-estate market for establishing the credibility and winning the investor's' confidence by • Capping the developers sole profit motive • Ensuring protection of buyers from un-scruples builders, property dealers etc., • Handling challenges of unstable and precarious real estate market	Regulatory regime and investors' confidence

Question and Sub-Components		Brief essence of core concept
23.9	Enforcement of Regulations in the planning areas in view of lean and thin organization	HRD capacity and enforcement
23.10	Transparent, accountable, efficient and effective estate office/ regulator	Transparent, accountable, efficient and effective regulator
23.11	Mechanism for bold or fast policy level initiatives and decision making progressive and citizen friendly rules, regulations, building byelaws to keep up with current trends/ Technology	Technology, policy and procedural issues
23.12	Challenge of delivery in a time bound and transparent manner in the environment of public mistrust, media activism, RTI, judicial activism etc.	Implementation challenges

Question and Sub-Componants		Brief essence of core concept
Q. 28	**Advantages of incorporating stakeholder viewpoint in the process?**	**Stakeholder viewpoint in thedevelopment process**
28.1	**Participatoryfeeling generated-** stakeholder feels involved not alienated because they have participated in the process.	Participatory feeling generated
28.2	**Development owned by stakeholders**: Due to involvement in the regional plan and development formulation process the stakeholder feels sense of ownership hence resistance to development is less likely.	Development owned by stakeholders
28.3	**Fear of unknown:** The feeling of unexpected and the resultant anxiety is reduced as the benefits or loss becomes a known element.	Fear of unknown
28.4	**Decision making:** Since the benefits or loss is a known element timely future planning can be done by the stakeholder.	Decision making
28.5	**Ensures rightful dues:** As the proposed development is known transparently, persons with prior information cannot deprive the stakeholder of its rightful dues.	Ensures rightful dues
28.6	**Development proposed by stakeholders**: As the proposal includes stakeholders suggestions and requirements the Regional plan and Development becomes **the stakeholders' proposal**.	Development proposed by stakeholders

APPENDIX –V

List of Publications

Kalsi, N., and Ravi Kiran (2014),' Greater Mohali Region: Geopolitical Impact on Urban Anthropology to Emerge as a Significant Tri-city Entity,' JOURNAL OF HUMAN ECOLOGY, International Interdisciplinary Journal of Man-Environment Relationship, ISSN 0970. J Hum Ecol, 47(2): 125-137 (2014)

Kalsi, N., and Ravi Kiran (2015), 'Stakeholders' preferences for land assembly: Development with rural urban synergy' Study of Greater Mohali Region of India Punjab,' Indian Journal of Agricultural Sciences 85 (4): 539–48, April 2015/Article.

Kalsi, N., and Ravi Kiran (2015), Utilization of Land For Development: Willingness and Preferential Options of Land Owners and Other Stakeholders Study of Indian Policy, Delhi and Greater Mohali Region of Punjab, India .

Kalsi, N., and Ravi Kiran, CHANGING DYNAMICS OF GENDER PREFERENCES: Motivating sensitivity through, "The Blueprint of Development for City-Regions." (Submitted)