




Terms of Reference
For the Preparation of
Integrated Urban Development Plan (IUDP) of Dhulikhel Municipality

1. Background.

Despite all these problems, government's responses have been grossly inadequate. The responses tend to be scattered and ad-hoc rather than planned and coordinated. A weak institutional capability has been one of the leading factors in poor performance of the government agencies. Above all, lack of the long-term development perspectives or plans has led to uncoordinated actions of agencies involved in urban development. Therefore the result is poor or limited impact in urban development efforts. Consequently, economic development has not taken place in the desired manner consistent with the pace of population growth. Whatsoever, Nepal has experienced some settlement planning attempts since 1944; the first city Rajbiraj was planned to resettle people from Hanuman Nagar. In 1956; first National Periodic Plan (Economic Development Plan) was originated, At present, 14th Plan is in implementation. During 1960s, many people from hill and mountain (especially displaced from natural disaster, national parks etc.) were resettled in Tarai plains. In 1969, Preparation of Physical Development Plan of Kathmandu Valley was a turning point in urban planning sector of Nepal. After this, so many development plans of Kathmandu Valley were prepared but never implemented due lack of institutional/ legal mechanism and financial resources.

In 70s, Regional Development concept was initiated in Nepal; master plan of four regional headquarters (Dhankuta, Pokhara, Surkhet and Dipayal) was prepared and implemented in some extent. In the late 80s, structure plan of all designated urban centres was prepared. Similarly, IAP was popular in 1990s before the Local-Governance Act enacted by government of Nepal. In 2000 long-term concept of Kathmandu valley (vision 2020) was prepared. Currently, Periodic planning of urban centres (municipalities) is in practice. Despite these attempts were made, it provided neither approved land use plan nor concrete physical plan implementation mechanism regarding the major urban centres in the country. Municipal plans prepared in the past employing integrated action planning technique or structure planning is found to focus mainly on physical aspects. Besides, IAP's overwhelming concentration on ward level problems has also led to neglect of municipal level vision and desires: As a result, though several municipalities show some improvement in physical aspects, progress is still found lagging in several critical urban areas such as education and health. Issues such as social exclusion or deprivation, urban poverty, environmental conservation. Economic development, financial mobilization and municipal capacity building have remained largely unattended in the previous planning efforts. Keeping in view of this context, the Government of Nepal has already enacted and has been implementing National Urban Policy since 2007. The policy is conspicuous by prioritizing


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investment to the lagging regions of the country, while fostering development of regional cities and intermediate towns as well. Therefore with an objective of reducing poverty and to improve urban physical facilities, MoFALD has prioritized to invest in 25 Municipalities in Country; and Dhulikhel, after the local level election; first Municipal Assembly decides to go for IUDP on its own resources to lay the foundation of the municipality.

2. Objective of Study

The main objective of the proposed assignment is to prepare Integrated Urban Development Plan of Dhulikhel Municipality. However, the specific objectives are:

1. To set out Long-term Vision and overall Goal, Objective and Strategies of Dhulikhel Municipality (5 to 20 years) is the prime objective of the study.
2. Preparation of the foundation planning documents of socio-economic, cultural, physical and organizational sectors of Dhulikhel is also the objective of this study. Such plan documents are: Land Use Plan, Physical development plan, Social, Cultural, Economic, Financial, and Institutional Development Plan; Environmental and Risk Sensitive Land use Plan, Municipal Transportation Master Plan, Multi-Sectorial Investment Plan (MSIP) and other relevant plans in consultation with Municipality, Department of Urban Development and Building Construction (DUDBC) and MoFALD on the basis of Sectorial Goal, Objectives, Output and Programs
3. To prepare or to revise building bye-laws is the additional objective of this study.

3. EXPECTED OUTPUT

The completed Integrated Urban Development Plan shall include but not necessarily limited to the followings:

3.1 Establishment of Planning and data Server

Municipality may require planning server or multipurpose server to store and to manage data. Various maps need to be uploaded, updated and printed as per required but Municipalities largely lack the reliable server with adequate power backup. Municipality is responsible to provide the hardware but the consultant is responsible to establish the server, networking and other activities that link the server with major departments.

3.2 Assessment and Preparation of Base Map

The assessment's objective is to give an overview of the municipality's territory and identify the main challenges and opportunities the 'citizens and administration want to focus on the next 5, 10 and 20 years. Because the data is mainly spatial, the assessment will come in the shape of a series of GIS based thematic maps. However, members of the Steering Committee, other stakeholders and citizens are not always familiar with maps. In order to allow mutual understanding, the consultancy team is expected to write a commentary of each map using local landmarks and names. Making maps being used by various stakeholders; including on cell phone should also be explored and facilitated.

The list of Maps includes:



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- Base GIS map including: existing streets (with codification system), building footprints with building use, building structural characteristics, occupancy and general demographics,
- Population density and growth rate
- Existing land use (housing, commercial, industrial, agricultural, natural, mixed use, guthi land, public space, squatted land.)
- Terrain, watershed analysis. and agricultural value of land
- Transportation (roads with hierarchy-- national highways, feeder roads, district roads and urban roads (administrative classification) and Class I to IV (technical classification for design). Parking space; public transportation routes. Frequencies and stops, and destinations
- Water Supply (main line, water treatment facilities, public water tanks, storm water management infrastructure, drainage system, discharge points
- Solid waste (coverage of public and private collection system, formal and informal dump sites, recycling points).
- Electricity (Transmission infrastructure, grid power coverage. public lighting)
- Multi-hazard risk map (landslide, fire, floods, earthquake, industrial risks ...)
- Public services (health, education, police, rescue services, post office, public toilets, public parks etc., cemeteries, administrative services)
- Environment (erosion, pollution, forest, water bodies
- Culture and tourism (temples, museums, cinemas, views, monuments, performance places, festival Routes, etc.
- Summary map with the most pressing needs across all themes studied (ranked by order of importance).
- In order to produce these maps; the consultants are expected to use existing data of the municipalities having digital base map/Urban Map and GIS, prepare base data if not already available, collect necessary field data, consult local leaders and involve the municipal stakeholders through a participatory needs assessment.

3.3 Municipality profile: An up to-date profile should be prepared, comprising of base-line information of the existing physical, social, economic, environment, financial and organizational state of the municipality. Apart from the key statistics, such base line information should also include textual descriptions, maps, charts, diagram, and key problems prevailing in the settlements of the municipality. Base line information of at least two time points-having minimum interval of past five years should be included.

3.4 Analysis: This section should contain at least of the followings

Trend analysis: The analysis should reveal among other things growth trend of population, migration, land use, infrastructure provisions, import-export of goods, agricultural outputs, jobs, and other economic opportunities.

SWOT analysis: This should reveal potentiality of the Municipality based on its strength and opportunities. The analysis should also reveal the weaker side of the town which tends to pose threat to the future development of the municipality

Spatial analysis: The analysis should clearly reveal demand and supply situation of vacant land, besides including land develop-ability analysis. The analysis, therefore, should clearly show the location where the future growth can be channelized.

Financial analysis: The analysis should reveal income potential and financing sources including expenditure pattern of the Municipality for the twenty-year plan period.

3.5 Municipality vision paper: The consultant should prepare or review municipality vision paper for five to twenty years by setting sectorial targets and strategies to achieve those targets. The vision paper; on the basis of revenue projection; should also include the vision, mission, goal, objectives and sectorial targets and strategies.

3.6 Sectorial goals, objectives, 'output and programs: These should be formulated mainly using Logical Framework Approach (LFA), and should be supplemented by performance indicators and means of verification of such indicator' as far as practicable. When adequate data are not found and formulating indicators becomes not feasible and if the advisory committee and the technical working committee finds deficiency; the team leader on the advice of such committees may introduce necessary modifications in the LFA technique to bridge the deficiency. Sectorial plan and programs have to be prepared giving due attention to national concerns such as poverty reduction: and social inclusion

3.7 Long-term Physical Development Plan (PDP): Such physical plan should essentially reveal the future desired urban form of the Municipality, keeping in view of planning horizon of 20 years and also classify the Municipality land revealing broadly urban areas, urban expansion areas, natural resource areas and also calamity prone areas. Such physical plan should be separately supplemented by the relevant data and thematic maps of existing land use, environmentally sensitive areas, and 'infrastructure services such as road network', transportation, water supply and drainage system, sewerage network, telecommunication network and electricity distribution network. Also hierarchy of the open space should also be justified with in Municipality areas. Plan should also be supplemented by. Social and economic data and thematic maps revealing the social and economic infrastructures of the Municipality.

3.8 Land use plan : The proposed land use plan should be justified with geological investigation, hydrological & metro logical parameters of the Municipality area, and should have overlaid with base and cadastral maps too. There should be strategic steps/ suggestions to make available land for Municipality urban infrastructures. The content of such land use plan should include but not limited to;

1. General Land Use Plan
 - 1.1 Land Use map
 - 1.2 Land Use regulations
 - 1.2.1 Risk Zones
 - 1.2.2 Environmental conservation areas
 - 1.2.3 Agricultural Land Preservation areas



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1.2.4 City Development areas

1.2.5 Formalization areas

1.2.6 Functional zones (residential, industrial.)


The consultant need to follow guidelines prepared by Ministry of Land Reform and Management, while preparing the plan.

3.9 Risk Sensitive Land use Plan: The land use plan should have separate chapter for risk sensitive land use plan or it could be developed separately. However this document should be linked with land use plan, environment management plan, disaster management plan and building by-laws of the municipality. Adequate maps and technical data would be prepared along with the plan. For compliance monitoring and execution of the plan; necessary by-law or guidelines may require and prepared as a part of the plan.

3.10 Environment Management Plan: The environmental management has remained as the major problem of the Nepalese development process. The environmental management plan should be formulated by studying and analysing the environmental aspect of development in detail. Such plan should essentially cover the following aspect:

- Environment Sensitive check list for licencing process and recommending process.
- Benchmark guideline for IEE/EIA before licensing.
- IEE/EIA review tools and indicators.
- Solid waste Management: 3R promotion- reduces/ reuse/ recycle.
- Sanitary land fill site management plan.
- Waste water Management.
- Air, water, land, visual and Noise pollution.
- Urban Greenery (forestry, Agriculture), park, garden etc. Control and management of built environment.
- Conservation of environmental sensitive area.
- Assessment of requirement of EIA/ IEE of major sub-project.
- Exit plan and recommendations for EFLG program.
- Environment Sensitive development strategies for the municipality and other link agencies.
- Preparation of manuals for waste management law enforcement.
- (Greenery Plan: recommend the proper road for proper plants including flowers for beautification. Mapping is suggested; however; maintenance plan would be required by considering the govt. policies.)

3.11 Social Development Plan: Social Development plan significantly contributes to bring qualitative improvement in the lives of the common people. Attention should be given on various social development programmes. Such plan should essentially cover the following aspect:



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- Education
- Public health
- Security (physical as well as social)
- Main streaming GESI: Inclusion of women, dis-advantage groups, child, elder, physically challenged etc.
- Cultural and Sports
- Water and sanitation
- CFLG targets and strategies
- Strategies for achieving SDGs
- Hierarchy of Parks& open spaces
- Other urban social service centers (information, library, and space for social gathering ...)
- Others as per Municipality's requirements

3.12 Municipal Transportation master Plan (MTMP): MTMP of Dhulikhel should be prepared following the MTMP guideline of MoFALD. Such plan document should cover the following aspects:

1. Road inventory preparation
2. Fixing the Row of municipal roads.
3. Identifying the roads of built-up areas that can't be further extended.
4. Uploading the network in concerned maps.
5. Naming the roads with standardized codes.
6. Others as per the guidelines.

3.13 Conservation, Cultural & Tourism Development Plan: Culture makes a distinct identity of the place and people, way of life and level of civilization. Cultural development plan significantly contributes to bring qualitative improvement in the conservation of local cultural heritage, art and architecture. Similarly, more attention should be given to the preservation of tangible and intangible cultures. Cultural planning should be integrated with other planning. Such plan should essentially cover the following aspects:

- Identification and preservation of important Cultural heritage sites within the Municipality.
- Identification of specific non-material cultures in the area.
- Plan for conservation of both material and non-material (tangible and intangible) cultures and link them to tourism development plan.
- Culture center development strategies (local craft, paint, architecture, museum, culture exchange, exhibition etc.
- Identification of touristic sites and recommendation of further development of them.
- Identification the tourism identity of Dhulikhel.
- Defining the role of municipality, private and community sector in practicing, protecting and developing the cultural heritage.
- Define the role of private and public sector in tourism development.
- Other aspects of tourism development plan.



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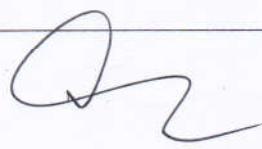
3.14 Economic Development Plan: An Economic development plan which directly contributes the economic activities of the town and supports in the development of the Municipality is also main component of the study. It will be, better if the municipality has some economy based identity. It may base on the municipality's potentiality or we can add new features for its identity e.g. Sport city, IT City, Tourism City or Commercial city etc. The proposed Integrated Urban Development Plan needs to support to have the Municipality with identity based on its potentiality. This should be the vision for the municipality. Such plan should essentially cover the following aspects:

- Areas of comparative advantages.
- Area of Competitive advantages and strategies to achieve such competitiveness.
- Employment generation and poverty reduction strategies.
- Agricultural development (commercialization of agro-forestry products- cold storage, vegetable market ...)
- Rural urban linkage- strategic location of different market center/ product collection centers.
- Micro/Small industry and business promotion.
- Possible Economic Zones based on local economic growth potentials (driving forces)
- Investment pattern and recommended policy for enhancing investment in Dhulikhel.
- Others as per municipality's requirements.

3.15 Financial Development plan: Resource is the integral part of every plan for its implementation. Since IUDP will have five years to twenty years for implementation; resource mobilization plan will play a vital role on its implementation. The following things/ subjects needs to be considered while formulation the financial plan:

- Financial analysis of Dhulikhel.
- Assessment of possible financial resources.
- Analysis and projection of municipality income and expenditure.
- Revenue improvement action plan.
- Allocation of Development budget (for coming five years), cost sharing among sectorial agencies.
- Expenditure management action plan.
- Revenue Mobilization strategy from private sector and civil society.
- Financial and economic analysis of proposed priority sub-projects.
- Prepare the list of projects to be funded the rough PPP
- Others as per Municipality requirements.
- Mobilization of people's participation.
- PPP (BT, BOT, BOOT) Strategies to bridge the resource gap or investment gap.

3.16 Institutional Development plan: Human Resource Development plan and organizational development plan are the areas of the institutional development plan. Following sector should be considered in the formulation of institutional development plan:



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- Organizational capacity and capacity building.
- Preparation of training needs assessment for representatives, officials and other stakeholder.
- Capacity development plan of the officials.
- Capacity development plan of the offices.
- Technology Transfer plan.
- HR Planning: that we want, we may need, and way to get them.
- Automation of the public service delivery.
- Human resource management plan with focus on out sourcing and contracting out strategies.
- Organization Development Plan with organogram and job description in the change context (Implementation of federal structure)

3.17 Disaster Risk Management plan: Nepal is prone to various kinds of disasters however disaster risk management skill is not adequately developed and transferred to municipalities. Flood, Landslide, Forest fire, Fire, Road accident, thunder storm are the most common disasters in Nepal and in Dhulikhel. Nonetheless; the earthquake should be ranked at the first position; getting the lessons from the past.

The Disaster Reduction and Response Plan (DRRP) should suggest the proper strategies by keeping in mind that:

- Make the city safe
- Make the community safe
- Make individual house safe
- Make public facilities safe

The outcome plan should suggest all those mechanisms that are not included in building code, MTMP, Land use plan and Urban Dep. plan etc.

Disaster recovery plan for different disasters; if they required exclusive mechanism; that should be included.

Investment plan for financing DRRP.

- Pre- Disaster Plan
- During or immediate after disaster
- Post- Disaster Plan
- Disaster/calamity occurred previously in that area should be overlapped in the updated geological and disaster event maps (overlays of historic events)

3.18 Multi-sectorial investment plan (MSIP): Such plan should reveal short and long-term programs/projects, rough cost estimate, and probable financing sources prioritized in sequential manner for the planning period of each five years. Such programs/projects should cater both the short-term and long-term needs of the Municipality and the wards, and

should be consistent with the long-term development plan. Sectorial goals and objectives, and the vision should be prepared.

Furthermore, MSIP should clearly reveal programs/projects for each fiscal year for the first five years. Such MSIP should be pragmatic and be consistent with the financial resource plan. The city level plan/projects (Mega project) and the projects that can be implemented exclusively by Municipality also should be clearly mentioned the MSIP. It is suggested that the plan/projects that have to be implemented by different line agency in MSIP, included after thoroughly consultation with the concern offices.

3.19 Preparation of Building and Planning bye-laws: Preparation of Building and Planning bye-laws that clearly spells minimum in the following areas regarding the construction of building: (a) Minimum land area (b) maximum ground coverage (c) maximum floor area ratio (FAR) (d) maximum building height (e) maximum no. of floors (f) right of way of roads (g) set back in four sides of the building (h) minimum parking area (i) lift (i) minimum distance to be left in both sides of stream/river. The building and Planning bye-laws of the towns should prepare in accordance with Conceptual building bye-laws 2072 of town development. urban planning and building construction published by Ministry of Urban Development should be followed. The building by-laws should be inclusive of building code for Dhulikhel Municipality.

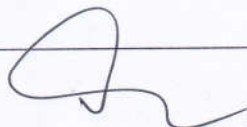
4. Method of Plan Preparation

4.1 Data Gathering and Analysis

Plan preparation will rely on both primary and secondary data. Primary data especially related to land use pattern, extent of newly opened roads, their standards and quality, land values and environment problems shall be gathered through physical mapping using GIS cadastral map, on the site observation, technical investigation/ test and interview. For this, one shall also be familiar with the acts, rules, regulation and guidelines of land development programs or practices in Nepal and collection of all relevant documents, literatures and also well acquainted on DUBC 's both published and unpublished norms, regulations, polices etc. Related to urban development field. Municipality level problems and needs are ascertained through participatory rapid appraisal by holding citizens gathering at the Municipality office or at the convenient location of the Municipality.

Municipality level problems and development issues are identified through opinion survey of prominent citizens, officials of the local and government agencies, and through the Municipality level meetings which may include meetings of the Municipal Steering Committee and sub-committees. Data on physical, environmental, social, economic, financial, and institutional shall be gathered from sources such as office records or archives, municipal reports/ profile, published academic or professional reports, and data published by CRS. Analysis will include both trend analysis, spatial analysis using GIS, and interpretation of aerial photographs.

4.2 Planning and approval Process


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- Apart from regular process to formulate a plan, such as inception report preparation, planning workshop, roundtable of stakeholders, field study, data analysis, preparation and presentation of draft report, etc.; the planning process could be more inclusive, more consultative, more participatory and more coordinated with stakeholders and other agencies.
- Mass consultation/sharing meetings at Municipality with participation of local political leaders/representatives, district level government officials and concerned stakeholders for getting consensus on sectorial analysis report, sectorial plan and final IUDP.
- Expert panel review by local level (Municipal) experts/intellectual/ people (5-6persons) at least before the each above mentioned consultation meeting, such panel would be formed by the municipality.
- Submission of different plan or the main report IUDP to steering committee for review (Steering committee at municipality is not the apex body for approval of IUDP, it will rather play facilitation role for developing IUDP)
- Sharing final IUDP report to MoFALD Technical Review Committee. For reviewing MTMP, and other plan documents; the designated committees at the center (MoFALD, DUDBC, and MULRM) will review them.
- MOUD, TDF and Department of Road for feedback/ suggestions and getting no objection Final approval by municipal assembly.
- Consultant is expected to follow prescribed guideline for each and every plan document. If there is no any guideline and template for a plan to be prepared; municipality will give the template and format. Furthermore, municipality can from a sub-committee to finalize TOR, template and to review such plan document.

4.3 Role of DUDBC

DUDBC shall be responsible for providing planning & technical input and suggestions for IUDP preparation. All related documents such as New Town Feasibility, Study, Digital Base Map, Feasibility study of Economic Development, Road Network Plan and others prepared by DUDBC will made available to consultant in coordination with MoFALD.

4.4 Role of MoFALD

Infrastructure Development Division (IDD) and Municipal management Section (MMS) of MoFALD will provide Technical backstopping for approach paper/toolkit, and Standard contract Documents to municipality for preparation of IUDP. MoFALD will coordinate with MoUD and DUDBC for providing related documents to municipality and getting planning/technical input/suggestions on IUDP. MoFALD shall provide feedback and suggestions on IUDP through Technical Review Committee and will issue no objection letter for IUDP approval.

4.5 Role of Municipalities

- Municipality if possible shall depute its senior technical and social officials to facilitate internally and externally in the entire planning process till the completion of plan preparation.



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- Municipality shall help the consultant planning team to provide and gather data. It may also raise specific planning issues and provide suggestions separately to the planning team.
- Municipality will form steering committee for coordination/facilitation and providing feedback and suggestions for preparation of IUDP. The structure of steering committee will as follow:

Mayor – Coordinator
 Vice Mayor – Member
 Executive Officer of Municipality -Member
 Urban Planner Nominated by Municipality – Member
 Representative from DUDBC Division office – Member
 Engineer of Urban Development Section – Member
 Social development/program officer - Member
 Engineer of Municipality planning sector - Member secretary

The coordinator could invite other concerned persons and agencies to attend the committee meeting.

- Municipality shall help the consultant planning team to organize inclusive municipality level meeting, steering committee meeting, and various round table meetings that includes, but not limited to ward committee and municipal executive committee meetings.
- Sectorial plan documents need to be approved by exclusive technical Review Committees, Such as MTMP, Land Use Plan, OD, TNA could be approved by such committees as well. Miscellaneous, costs for such meetings will be managed by the municipality, since no such provision has been made on consultant's part.
- Municipality will facilitate to share the final draft of IUDP to Technical Review Committee of MoFALD.
- Municipality shall take initiation for implementation of IUDP.
- Municipality could provide office space for the consultant during field work and report writing phase, if they requested for it.

4.6 Role of the Consultant

- Consultant shall be responsible to supply technical personnel as stipulated in TOR and bid form, and the work under the team leader. Consultant's personnel shall directly participate in fieldwork and plan preparation, under the supervision and instructions of the team leader. The fieldwork among other things includes data gathering, municipal level meetings, and other meetings, analysis.
- Consultant shall remain in Municipality (not less than one third of total assignment period) until plan preparations.

- Consultant shall be responsible for making available of logistics including computers, printer, scanner, photocopier, and vehicle as stipulated in TOR and bid form for use in the field.
- Consultant shall be responsible for undertaking necessary transfer of knowledge programs that are required in connection to plan preparation.
- Keep appropriately the records and minutes of the meetings/workshops.
- Have knowledge and skills about Logical Framework Approach (LFA) and educate the participants of the Sub-Steering Committee or Sub-committees about LFA and assist them in plan preparation.
- Make necessary investigation (geological/ soil, topographic survey, material sample survey, lab tests etc.) to prepare Integrated Urban Development Plan for Municipality.
- Gather data and carry out necessary analysis and inform the outcome of such analysis to the team leader and to the planning team during plan preparation
- Undertake the task of preparing IUDP in complete as described in this TOR, Municipality's instruction/ Guidelines, under the supervision of the team leader.
- Consultant will not held responsible to pay meeting allowances at the municipal and ward level meetings.

5. SCOPE OF WORK

The scope of consulting services for preparation of Integrated Urban Development Plan (detailed of the scope of work is mentioned in chapter Expected Output) shall include but not necessarily limited to the following:

- The consultant should spell out the Vision of the town. The Vision should articulate the desires of the Town and its citizens, and will provide the guiding principles and priorities for the Plan's
- Implementation. Prepare overall Integrated Urban Development Plan of entire area including existing and future (5, 10 and 20 years) land use plan in cadastral maps. This should be based on land use plan and followed by narrative description, analysis, facts and figures.
- Conduct additional study on local economy and its activities also change in demographics and migration trend for 5, 10 and 20 years period.
- Identify potential area for urban development based on land suitability and other factors. Analyze present and future (5, 10, 20 years) housing needs/market, stock, conditions and recommend strategies for land acquisition, distribution of land and housing in future.
- Conduct studies on present and future (5, 10 and 20 years) demand 111 infrastructures (such as transportation, communication, electricity, water supply and sewerage system) and their supply. Analysis of demand should be in different scenarios with facts and figures. The recommended complete street pattern, major and minor roads, highways, arterial roads, traffic circulation, truck yard, bus bays and bus parks should be worked out in details. The network plan of

infrastructures, both existing and proposed. Should be shown in cadastral maps with other detailed drawings and unit rate cost estimates. The consultant should also identify and produce landfill site, treatment plant location and their detail drawings and cost estimate. A management scheme of both water supplies, Solid waste management system and landfill site should also workout.

- The consultant should carry out full study of existing social infrastructure such as health/education/sports/communication/security centres and other community facilities by addressing present deficiencies and future (5, 10 and 20 years) demands. The location and area of land required for all these infrastructures should be identified in based maps.
- Identify and assess critical, sensitive and other natural resources including parks, green belts, recreational area, along with strategies for their protection, preservation and stewardship against the adverse impact of future development and land use changes. Calculate the cost estimate on unit rate basis for their preservation and protection. Show locations and calculate future requirements of such resources.
- Verify Government, Guthi and Public Land for future development and expansion of the town including land required for government and public purposes. Produce appropriate plan and policy) to protect such land from private/public encroachment and others.
- Identify and assess natural hazards, including how significant weather events have and will impact these assessments, which may cause a threat to the Vision of the Integrated Development Plan, along with strategic for avoidance/mitigation of such hazards in the course of future development and calculate the cost estimate on unit rate basis.
- Prepare the Proposed Land Use Plan for 5, 10 and 20 years in the existing cadastral maps (plans) based on: i) The policies enunciated for different urban activities, ii) Population to accommodate maximum one hundred thousand; iii) Requirement of additional social and physical infrastructure, iv) Transportation and work centers, v) Parks, green belts, recreational areas, vi) Cultural and historic resources) Others.
- Provide a full study of following Land Use Zone and recommend bye-laws for the construction of building and other infrastructures. i. Residential zone, ii. Institutional zone, iii. Industrial zone, vi. Preserved zone, v. Airport zone, vi. Sport zone, vii. Urban expansion zone, viii) Stream/river banks zone, ix. Green zone, x. Apartment housing, xi. Petrol pump/Electric line/Cinema theatres and xii. Others.
- Prepare Building and Planning bye-laws that clearly spells minimum in the following areas regarding the construction of building: (a) Minimum land area (b) maximum ground coverage (c) maximum floor area ratio (FAR) (d) maximum building height (e) maximum no. of floors (f) right of way of roads (g) set back in four sides of the building (h) minimum parking area (i) lift U) minimum distance to be left in both sides of stream/river.

- The building and Planning bye-laws of the towns should prepare in accordance with Conceptual building bye-laws 2072 of town development, urban planning and building construction published by ministry of urban development should be followed.
- Recommend an implementation strategy (including a suggested action program that generally describes the actions, costs, time frames, responsibilities, procedures and the Municipality's capacity to use them) necessary for implementing the Integrated Urban Development Plan of the Municipality. Prepare separate report by volume each Comprehensive Town Development Plan, infrastructures etc. for each town, also prepare investment and cost recovery Plan.
- Pre-feasibility of the top three prioritized projects should be done by the consultant.
- Within the first two month of study period the consultant should submit draft report of Land Use map with final demarcation of land and its areas to be required for future urban development purposes.
- Prepare IUDP of municipality in Nepali language for the purpose of approval by municipal authority.
- Prepare physical model of municipality. The scale will be finalized based on the area covered by municipality.

6. Time Schedule

The total period of study is allocated 4 months for from the date of work order. However the planning team shall work 2 month on the field and 2 month for report preparation.

7. Human Resources

In general, the study team shall comprise following personnel for each packages:

| S.N | Key Personnel | Man-Month | Qualifying Criteria | Responsibilities |
|-----|-------------------------------|-----------|--|---|
| 1 | Team Leader/ Urban Planner | 2/4 | Minimum Master's degree in Regional Planning/ Urban Planning/ Infrastructure Planning/ Civil engineering with Civil Architecture engineering background having minimum 5 years of relevant work experience after master degree | <ul style="list-style-type: none"> • Responsible for mobilizing the team members, overall planning, programming, coordination, monitoring, and supervision of team member work. • Review conceptual/Block/Infrastructure plans/engineering design, cost estimate etc. • Conduct meeting, workshop etc. as and when required. |
| 2 | Architect | 2 | Minimum Bachelor degree in Architectural Engineering | <ul style="list-style-type: none"> • Support to team |

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| | | | with minimum 3 years of relevant work experience | leader/ urban/ infrastructure planner to prepare land use zoning, building inventory, urban design conceptualization, and building bylaws |
| 3 | Civil Engineer | 4 | Minimum Bachelor degree in Civil Engineering with minimum 3 years of relevant work Experience in preparation of GIS based Base map or urban map | <ul style="list-style-type: none"> • Support to urban/ infrastructure planner & Environment engineer for design & costing of infrastructures sub-projects • Support to team leader for preparation of Digital base map. |
| 4 | Environmental Engineer/Expert | 2 | Minimum Master degree in Environmental Engineering subject with minimum 3 years of relevant work Experience in preparation of GIS based Base map or urban map | <ul style="list-style-type: none"> • Support to team leader to find out environmental sensitive areas in NT, and find mitigation measures to protect natural environment. • Suggest necessary environmental improvement project, sanitary LFS in NT, suitable technology for sub-project. • prepare IEE or suggest for EIA for prioritized sub-projects, etc. |
| 5 | Geo-tech Engineer | 1 | Minimum master's degree in Geo-tech engineering subject with Civil/Architecture engineering back ground having minimum 3 years relevant work experience after master's degree. | <ul style="list-style-type: none"> • Support team to gen- investigation of the NT area, to find out geologically sensitive area, technology choice for such area, finding gee-fault lines in the area, soil investigation of prioritized sub-project sites, etc. |
| 6 | GIS Expert | 2 | Minimum master's degree in Geo-information with | <ul style="list-style-type: none"> • Advice to team leader, • prepare database/ update |

| | | | | |
|----|---|-----|---|--|
| | | | Civil/Architecture engineering back ground having minimum 3years of •relevant Experience after master's Degree. Should have experience in designing and developing GIS and Develop GIS data base, develop base data base system in urban sector. | base maps of NT area • Apply GIS based system for the preparation of plans, maps, drawings etc. • Develop GIS data base, develop base map of towns. |
| 7 | Economist/Financial Analyst | 1.5 | Minimum master's degree in Economics I Business studies subject with 3 years of relevant experience after aster's degree | • Assist team leader, urban planner to analysis driving force of NT • Conduct economic/financial analysis |
| 8 | Sociologist/ Community Development Expert | 3 | Minimum master's Degree in Sociology/ Social Study/ Anthropology with minimum 3 years of relevant work experience after master's degree. | • Assist team leader, • Conduct socio economic, demographic, and migration tend etc. analysis, • Suggest community support measures. |
| 9 | Institutional Development Expert | 2 | Minimum master's Degree- in Public/Business administration/business Studies with 3 years of the NT project relevant work experience | • Support team lo analyze existing institutions, their capability responsibility, coordination regarding the NT project • Suggest appropriate institution framework, along with capacity for the effective execution of NT project. |
| 10 | Computer Engineer or IT Expert | 0.5 | Minimum Bachelor's Degree in Computer/Communication/I | • Support to design data server and its procurement |

- 6.3 Terrain, watershed analysis and agricultural quality of land
- 6.4 Transportation
- 6.5 Water and sanitation
- 6.6 Solid waste
- 6.7 Electricity and lighting
- 6.8 Environment
- 6.9 Culture and tourism
- 6.10 Multi-hazard risk map
- 7 Summary of the following plan documents:
 - 7.1 Municipality vision paper
 - 7.2 Sectorial goals, objectives, output and programs
 - 7.3 Long-term physical development plan (PDP)
 - 7.4 Land use plan
 - 7.5 Risk sensitive land use plan
 - 7.6 Environment management plan
 - 7.7 Social development plan
 - 7.8 Municipal transportation master plan (MTMP)
 - 7.9 Conservation, cultural and tourism development plan
 - 7.10 Economic development plan
 - 7.11 Financial development plan
 - 7.12 Institutional development plan
 - 7.13 Disaster risk management plan
 - 7.14 Multi-sectorial investment plan
 - 7.15 Preparation of building and planning bye-law
- 8. References
 - 8.1 Bibliography
 - 8.2 Study participants
 - 8.3 Steering Committee members
- 9. Annexes
 - 9.1 Steering Committee meeting minutes
 - 9.2 Focus group meeting minutes
 - 9.3 Meeting minutes of Expert panel review by local level
(municipal/district) experts/intellectual
 - 9.4 Meeting minutes of presentation in Technical Review Committee of MoFALD.
 - 9.5 Administrative and contractual documents

Before approval of the individual plan document, municipality may organize panel meeting, plenary meeting with wide participation of stakeholders. It is consultants liability to make necessary presentation to those all meetings.

The sectorial reports or the plan documents could be finalized individually and approved by the steering committee; (if there is no technical committee at the central level) such reports shall be submitted in five colour-printed copies along with soft copies.

The final report of all plan documents including main report shall be submitted in five colour-printed copies duly signed and certified by the consultant, besides submission in the CD-ROM.

The consultant will deliver five large-scale print-outs (AO minimum) of the assessment summary map, the land use plan map, urban core land use map and the priority projects map.

The consultant will also transfer to the Municipality all GIS data gathered and produced for the planning study.

Thank you



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