FORMULATION OF GIS BASED MASTER PLAN OF TAWANG TOWN, ARUNACHAL PRADESH

Inception Report
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Govt. of A.P, Itanagar.

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1. Introduction

1.1 Background

Department of Town Planning and ULBs have taken a pioneer step in development of Arunachal Pradesh by initiating Master Plan preparation of notified towns in the region. This will boost the development activity in the state. As on July 2017 there are total 33 notified towns in the State of Arunachal Pradesh. According to Census 2011, the urban growth rate of Arunachal is 37.55% with annual growth rate of 5.44% and it is expected that the percentage of state's population living in urban areas increase to nearly 40% by 2026 and cross 50% by 2051. The number of urban settlements increasing relatively at rapid growth, this means that a larger number of settlements, as well as a larger percentage of population, has to be planned for urgently to ensure economic growth of the state and well-being of the people.

In order to address this requirement, as per Provisions of Arunachal Pradesh Urban and Country Planning Act, 2007 the Government of Arunachal Pradesh under Department of Town Planning and Urban Local Bodies, has awarded M/s. All India Institute of Local Self Government (AIILSG) the Consultancy for Preparation of GIS based Master Plan of Tawang town.

The Inception Report is the first in a series of deliverables designed, based on a multi-stage process, to strategically outline & facilitate Master Plan development process in the project area. The Inception Report will build a preliminary understanding of the project requirements, project area context (regional and site specific) for key sectors and presents the overall approach & methodology for achieving the project objectives. Project components and Scope of Deliverables have been outlined that help understand the tasks to be undertaken at each stake of the project and the tangible outcomes that can be expected out of each. The project understanding has been built on thorough review of the project ToR, sectoral experience of the consultant, preliminary discussions with client/ stakeholders. Accordingly, a pragmatic work plan and team mobilization plan has been furnished.

1.2 The Purpose of Master Plan

Post liberalization, India has witnessed a dramatic economic growth driven by the service and manufacturing sectors. Many city regions are now competing at a global scale and have grown exponentially in size, density and complexity. However, this development has also
brought with it attendant issues of equitable distribution of resources, quality of life and environmental sustainability. As cities have rapidly expanded, traditional modes of travel and living have begun to lose effectiveness. Unplanned assimilation of the rural into the urban at the urban periphery has left them under provided with amenities and infrastructure. While competitive cities are desirable, there is need for planning efforts to moderate effects of growth on the environment and ensure equitable distribution of infrastructure and amenities.

It is imperative to prepare a Master Plans for a planning area so as to successfully institutionalize the decentralized planning process. A Master Plan will be comprehensive in content when it identifies growth centres, considering physical, social and economic variables and suggests the future course of action for development of these centres and their environs to promote and sustain the local spatial-economic pressures and requirements in a given time frame. In simple words, a Master Plan spells out development strategies and policies in the physical, social and economic aspects suitable for the planning area for the next 10 years in hilly areas.

A Master Plan may be defined as the declared statement of the public, which sets forth its major policies concerning desirable future physical development. The Master Plan document normally includes a single unified physical design for the community and attempts to clarify the relationships between development policies and socio-economic goals. In other words, the Master Plan aims at restoring order and dignity to the economic viability and social stability for the present and the foreseeable future. The Master Plan main objective is to create a ‘total environment’, which is functional, efficient, healthy and aesthetically satisfying as a setting for living, working and recreating. It is to serve as a policy framework to fulfill the needs and aspirations of the community. The physical component of the Master Plan essentially deals with land use, circulation, housing, utilities services, facilities, open space etc. The economic component of the Master Plan aims at strengthening and diversifying the economic base while the sociocultural component is directed towards ensuring social equity and cultural fulfilment. The Master Plan adopts comprehensive analysis approach by considering all the development sectors together with emphasis on its spatial dimension in the planning area. Being a spatio-economic plan, it plays vital role in investment decisions in the area for all the development partners viz. Local Government, Regional Government (Zilla Panchayat), State Government, Central
Government, Non-Governmental Organizations, Autonomous bodies or Private developers etc.

According to “The Arunachal Pradesh Urban and Country Planning Act, 2007” The Master Plan shall-

1. Indicate broadly the manner in which the Local Planning Authority proposes that land in such area should be used.
   - Allocate areas or zones of land for use.
   - For residential, commercial, industrial and agricultural purposes;
   - For public and semi-public open spaces, parks and play grounds;
   - For such other purposes as the Local Planning Authority may think fit;

2. Indicate, define and provide-
   - For existing and proposed national highways, arterial roads, ring roads, and major streets;
   - The existing and proposed other lines of communication, including railways, airports, canals;

3. Include regulations to regulate within each zone the location, height, number of story and size of buildings and other structures, the size of yards, courts and open spaces and the use of buildings, structures, and land.

4. The Development Plan/Master Plan may indicate, define and provide for-
   - The existing and proposed public and semi-public buildings and
   - All or any of the purposes and matters as may be indicated, defined and provided for in the comprehensive development plan under section 18 and 19 of Arunachal Pradesh Urban and Country Planning Act, 2007.

1.3 Scope of the Project

This Study, Commissioned by M/s. All India Institute of Local Self Government (AIILSG) with Department of Town Planning & ULBs, Arunachal Pradesh is a first of its kind projects in the state. The detailed work plan, methodology and development approach is mentioned in the below chapters.

1.3.1 The major deliverables are

1. Spatial attribute collection and vetting of Base Map
The Department will provide a set of draft base map at 1:2500 scale generated using high resolution satellite data to the consultant. To provide authenticity to the information provided by consultant, value-addition of spatial features will be done through collection of attributes and the same will be vetted by the Local Planning Authority (LPA) of Tawang towns/ Nodal officer appointed by the department for further usage. The layer-wise spatial attributes as per the proforma given in Design & Standards will be collected from the field by the consultant and incorporated in the draft final base map which shall be used as an input to the plan formulation.

2. Urban Database Creation

Urban and Socio-Economic data is an input to be used to study the existing situation, identification of issues and formulation of proposals and projections. While most of the data to be collected is secondary, some crucial data may be required to be collected from primary surveys. Data analysis will be presented sector-wise, in the form of chapters in the draft Master Plan document. The final structure of the Master Plan will be as per the provisions of Arunachal Pradesh Urban and Country Planning Act, 2007.

2. About Tawang Town

Tawang town is a headquarter Tawang district located in the State of Arunachal Pradesh (A.P), India. It is surrounded by neighbouring countries/ district like China in the North, Bhutan in the South-West and West Kameng district, A.P in the East. Tawang town is located approximately 555 kilometres (345 mi) from Guwahati and 320 kilometres (200 mi) from Tezpur and nearest town is Dirang which is about 140 kms away. And Itanagar the capital of Arunachal Pradesh is about 507 kms away. Tawang has an average elevation of 2,669 metres (8,757 ft). Because of high altitude, Tawang is very cold and in winter town is covered by snow. The Total population of town is 11202 according 2011 Census of India. Tawang town was declared as urban area in 2001 census when its population was attained 4456 persons. Agriculture is the main stay of Monpas. Apart from its religious importance, Tawang is famous for its natural beauty, which attracts and enchants the traveller. The demarcation of Tawang Planning area still under process by the Department of Town Planning and Urban Local Bodies, Govt. of A.P.
Tawang is the only major urban centre in Tawang District. In next hierarchy is Jang town for which the PWD is maintaining the urban road within the Tawang town and Jang is located distance of 40 km from Tawang which is experiencing rapid growth because of its location. District road connection between Tawang and Bomdila connecting Jang road gave fillip to the rapid growth concept of the Jang. Tawang town is located at the hills which makes it difficult for planning with the natural barriers like very steep slope. The town development is a further restricted because of undulating topography. However, the northern area of the town that connected road leading to Bomdila which could be considered for own expansion. The central part of the town (Old market area, Nehru market etc area) which has developed as a high-density area. Rest of the areas is sparsely developed and there is lots of vacant area within the town which can be used for planning for next 20-25 years.
2.1 Administrative Set up

The administrative pattern of Tawang District is divided into three sub division Viz: Tawang Sub-Division, Lumla Sub-Division and Jang Sub-Division. This district is comprised of 10 (ten) administrative centres namely 1. Zemithang Circle, 2. Lumla Circle, 3. Dudunghar Circle, 4. Tawang Circle, 5. Kitpi Circle, 6. Jang Circle, 7. Mukto Circle, 8. Bongkhar Circle, 9. Thingbu Circle and 10. Lhou Circle. The administrative set-up is based in like a single line administration, which keeping closet co-operation amongst various developmental departments with the administration to keep step tighter for speedy development of the people and the area. The Deputy Commissioner being the overall in charge and District Magistrate of the district maintains law and order with the help of Administrative officers and Police force. He also looks after the development activities of the district.

The Panchayat Raj has been introduced in the district with the North East Frontier Agency Panchayat Regulation, 1967. This Panchayat Raj consist of 3 tier system Viz: - 1. The Gram Panchayat Body exist at the Village level, 2. The Anchal Samiti at the Block/Anchal level and 3. Zilla Parishad operates at the district level.

2.2 History

The Origin of Tawang is obscure. It was a part of the kingdom of Tibet in medieval times. Local tribal rulers governed it from time to time. The British had declared this area as off-limits in 1873. The area around Tawang became a cause of disagreement between India and China, after India gained independence in 1947. The Chinese army invaded Tawang in 1962 but they later withdrew. Tawang in Arunachal Pradesh is a major most important part of Buddhist learning and is particularly well-known for its 400-year-old monastery (Tawang Monastery), one of the best known and largest in India. The name Tawang was derived from this monastery. It is also believed that, the name Tawang was given by Mera Lama in the 17th century. ‘TA’ means horse and ‘WANG’ means blessing-means place chosen by a horse. When the founder of Tawang Monastery was in search of a suitable place for Monastery, he found his lost horse in present location of Monastery and he decided to build the Monastery in that place and build there. On the 6th October 1984, Tawang district came into existence carving out from west Kameng district. The historical war memorial and Jaswant Garh are the two vivid witnesses of the martyr’s dooms of thousands of Indian
Army personals who made their supreme sacrifice for the cause of the Mother Land during the China war in 1962.

Tawang, a conglomeration of various schedule tribe communities namely Monpa, sherdupan and Aka. Each tribe has their own dialects, customs, and religion. There are two major religious festivals of the Monpas "LOSAR" and "TORGYA". Both festivals are celebrated once annually. The LOSAR is celebrated to the commencement of New Year. Every third year of Torgya, the festival of Dungyur is celebrated. Both "Dungyur and Torgya" festivals are celebrated at the premises of the Tawang Monastery with traditional gaiety and enthusiasm. Agriculture and Animal Husbandry are the fundamental means of the Monpas occupation. Social and cultural events are very much associated with their life, environment and other relevant activities.

2.3 Connectivity

Geographically Tawang is isolated from the rest of the world due to undulating in nature. It is connected by district road from Itanagar via NH52A/ NH15 Balipara (Assam). By road it is connected by daily State Transport Bus Services via Tezpur, daily Tata Sumo service via Tezpur, Bomdila and taxi services from Guwahati. Other than this, direct Helicopter service twice in a week i.e. on Wednesday and Saturday (Itanagar to Tawang via Guwahati) subjected to weather condition. Daily Pawan Hans Helicopter service of 60 minutes flying time from Guwahati (except in Sunday) subjected to weather condition. Tawang’s nearest airport is Tezpur Airport situated at 133.6 K.M distance and other airports are Lokpriya Gopinath Bordoloi International Airport (166.7 K.M) and Zero Airport (194.2 K.M).

For entering into Arunachal Pradesh tourist needs to avail the PAP (Protected Area Permit)/ Inner Line Permit (ILP) is mandatory. The Foreign Tourists in a group of 2 or more persons need to obtain PAP (Protected Area Permit) for a period of 30 days from the offices of Govt. of India, Ministry of Home Affairs, New Delhi. The Resident Commissioner, Govt. of Arunachal Pradesh, Kautilya Marg, Chanakyapuri, New Delhi or The Commissioner (Home)/ Commissioner and Secretary (Tourism), Govt. of Arunachal Pradesh, Itanagar. Indian tourists need to obtain Inner Line Permit (ILP) to enter Arunachal Pradesh. ILP can be obtained at Deputy Residence Commissioner Offices of Kolkata, Guwahati or Tezpur. One needs to provide two copies of passport size photos and two photocopies of valid identity proof.
2.4 Climate

The climatic condition of this district almost remains same because of the altitude. Due to high altitude it is cold throughout the year. The altitude of different administrative centres varies ranging from 3500 feet to 22500 feet. The average temperature during the month of May to September varies from 14°c to 10°c. During the month of December to March it is extremely cold and the temperature varies from 5°c to -5°c with heavy snow fall, December and January are the coldest month for Tawang. During the month of June to September, it is the monsoon and rain showers are experienced at Tawang followed by heavy rains. Since the climate of Tawang is wet and cold hence humidity is always very low.

![Figure 3. Average temperatures and precipitation of Tawang Town](Source: www.meteoblue.com)

2.5 Tourism

Tawang is known as “The Land of Dawn lit Mountains”, the most tourist visited place in Arunachal Pradesh. The snow-clad mountains, the enchanting scenic beauty of its valleys and landscapes, high altitude lakes, the rich cultural heritage and peace-loving Buddhist inhabitants of Tawang make it an ideal destination for the tourists.

2.5.1 Festivals and Religious Occasions

The festivals mostly mark the harvesting season and auspicious Buddhist dates.
1. **Losar** which means new year falls either in the last part of February or early part of March and continuous for fifteen days, main celebration in first three days. The greeting ‘Tashi delek’ meaning ‘Good luck and Good heath’ are exchanged. The days are spent in revelry- archery, folk dances and community prayers are held. It is marked with lots of gaiety and festivity.

2. **Choe-Kor (7th month of the lunar calendar)** which means circumambulation around the village with holy images and religious texts such as Kangyur, Tengyur, Bum, Gyethang and Nyithri are read and taken out in processions to pray for divine protection of the crops sown for a bumper harvest and to chase away evil spirits.

3. **Torgya** is a monastic festival held every year for three days starting from 28th day of the 11th lunar month which generally falls in the last part of January and is also celebrated to chase away evil spirits that usher in diseases, misfortunes and unprecedented natural calamities. During the three-day festival monastic masked dance are performed in the Tawang Monastery. Every third year, Torgya is celebrated in a grander scale and called Dungyur.

4. **Saka Dawa** is the religious observation practiced in the 4th month of the lunar calendar to mark the birth, supreme enlightenment and achievement of parinirvana by Buddha Sakyamuni. During this month, people abstain from eating meat and observe prayers, circumambulations, prostrations are offered to increase ones fortune and gather more merit. A rit known as ‘Nyung-Ne’ (alternate fast) is organised in village temples to cleanse ones sin and to earn merit.

5. **Dukpa Tse-Zshe** falls on the 4th day of the 6th month and the day commemorates maiden delivery of Lord Buddha’s religious sermon on the ‘Four Noble Truths’ to his initial five disciples in the Deer Park at Sarnath. On this occasion people pay visits to monasteries, light up butter lamps and chant prayers, commemorated by visiting religious shrines and offering prayers.

6. **Gupa Lhabab Duechen** falls on the 22nd day of the 9th month of lunar calendar is celebrated as the day of Lord Buddha’s descent from Tushita, the realm of God. Lord Buddha is said to have travelled at the age of 41 to Tushita, where his mother had taken rebirth as one of the Gods. In order to repay his mother’s kindness, he spent one rainy season retreat at Tushita, giving teaching to his mother and other Gods. The day is devoted to religious activities such as visiting temples, lighting lamps and chanting prayers.
7. **Thrungkhar Duechen** is celebrated on 6\(^{th}\) July, every year in a very cheerful manner to commemorate the birth of his Holiness the 14\(^{th}\) Dalai Lama on 6\(^{th}\) July 1935 at Amdo. The birthday of VIth Dalai Lama Gyakwa Tasangyanf Gyatso is celebrated as well every year on 28\(^{th}\) March to commemorate his birthday on 1683 at Monyul Tawang.

8. **Tseb-chu** this auspicious day is observed on 10\(^{th}\) day of the 5\(^{th}\) month of lunar calendar to commemorate the bith anniversary of Guru Padmasambhava under the patronage of H.E Thegtse Rinepoche, the supreme Head of Nyingma tradition in the region. The 10 manifestation of Guru and Peling dances are performed.

2.5.2 **Tourist Spots**

1. **Tawang Monastery**

Tawang Ganden Namgyal Lhatse i.e. the celestial paradise of divine site chosen by horse popularly known as Tawang Monastery is the main Tourist attraction of Tawang. The Monastery was founded by Merak Lama Lodre Gyatso in 17th Century, the monastery has all-encompassing reverence and basic infrastructure for the spiritual development of the followers of this faith It has dormitories for lamas, meeting hall, rich library, school for basic education and learning. Grandeur Idol of Lord Buddha with main prayer hall and Community kitchen is also present.

2. **P.T. Tso Lake (Pankang Teng Tso)**

Tso means lake in Monpa dialect A fetching heaven for tourist which is picturesque lake at 23 kms distance away from Tawang town-ship. It is also an ideal spot for picnic. In winter lake remains frozen and the surrounding area provides an ideal spot for skiing.

3. **Shonga-Tser Lake**
Popularly known by Madhuri Lake by a visiting tourist after Koyla film. An enchanting lake 42 kms away from Tawang on the way to Taktsang Gonpa. The Lake emerged in a landslide in 1972. Prior to 1950, the present Lake area was a reserved grass land where local people of Tawang district had used for grazing their cattle. This fact can be gathered from the death trees emerging from the middle of the lake.

4. Banggajang Lake

An anecdotal lake, attractive for the tourists at the distance of 101 km from the township via Sela. Many stories, like seeing Gonpa, candlelight and other holy sites, are woven around the lake.

5. Tsachu Hot Spring

Apart from hot spring this site is also suitable for hard trekking. The route of Tsachu has very attractive landscapes and beautiful sites.

6. BTK waterfall (Bapteng Kang)

It has a height of 100 ft. and cascading at a distance of 80km on the way from Tawang to Zemithang.

7. BongBong (Nuranang) Waterfall

Only 2 Kms from Jang, the administrative circle headquarters of Tawang district and 40 Kms from Tawang is the breath-taking and tantalizing milky water falling from the height of about 100 metres. This has also been always an integral feature of one’s tour itinerary.
8. **Tawang War Memorial**

A beautiful stupa dedicated to the memory of 24201 brave soldiers (all ranks) who made supreme sacrifice defending the frontiers of the during 1962 Sino-Indian war.

9. **Sela Pass**

Sela Pass which is 14,000 ft from MSL has beautiful natural scenario with two lakes and in winter covered with snow-capped.

10. **Jaswant Rawat Garh**

This is where Jaswant Singh of the 4th Battalion Garhwal Rifles held off the Chinese soldiers for 72 hours single-handedly in 1962 war. He ran from bunker to bunker- firing and creating an illusion of many soldier’s present. Army convoys on the way to the border make it a point to stop and pay homage at the beautifully maintained memorial.

11. **Urgelling Gonpa**

This Gonpa is believed to have been in existence since 14th century. This historical place is the birthplace of VIth Dalai Lama. A beautiful Gonpa 4 Kms away from Tawang town. Many relics are preserved for the benefit visitors and historians.

12. **Taktsang Gonpa (Tigers Den)**

Serenely situated Gonpa, about 45 Kms away from the town area is believed to be hallowed by the visit of Guru Padmasambhava in 8th century A.D. The place is surrounded by beautiful hills and snow-capped peaks.
13. Gorsam Chorten

It is situated about 92 Kms from Tawang at a place called Zemithang. It is the largest Buddhist Stupa (Chorten) of the area, which was constructed in 12th century AD.

14. Gyangong Ani Gonpa (Nunnery)

This is a beautiful nunnery constructed on a hillock, 5 Kms away on the north of Tawang with more than 45 Buddhist nuns. Founded by Mera Lama Lodre Gyantso and is believed to have subsequently handed over to his elder sister. Till now, this Nunnery is run under the good administration of Tawang Monastery.

15. Bramadungchung Ani Gonpa (Nunnery)

This is one of the oldest Ani Gonpa (Nunnery) in Tawang. It is situated on the lap far-off mountain laced with natural scenery. The distance is 12 Kms from the town. This Ani Gonpa was constructed by a Lama Karchen Yeshi Gelek of Tsang province of Tibet in the year 1595 AD. Presently the Gonpa is housed with 40 Anis (Nuns).

16. Singsor Ani Gonpa

It is another nunnery situated at about 25 Kms ahead of Tawang near Lhou village.

17. Khinmey Gonpa

This is the only Gonpa affiliated to Nyimgmapa section of Buddhism in Tawang.
3. Our Approach and Methodology

3.1 Objective

“Be sustainable over time, socially, economically and ecologically (with a low and reducing ecological footprint)”

Planning process for the Master Plan will be based on three-dimensional planning principles ranging from socio-economic issues and wealth generation to the environment and preservation of cultural resources. This section presents the planning principles that we aspire to advocate through the Tawang Master Plan. It lays down the first set of preliminary planning goals for Tawang LPA. These planning goals are expected to undergo a number of changes as the project progresses. Eventually, the vision and goals that are finalized for Tawang LPA must become integral with the aspirations of its citizens as much as of the administration.

▪ Protect, maintain and restore the natural environment by reducing the development’s ecological footprint
▪ Encourage opportunities for business diversity, innovation and economic development
▪ Strengthen and clarify land use regulations
▪ Encourage mixed use
▪ Create identity of the city through unique activity areas like the city centre, waterfront, education city, medi-city etc.
▪ Comprehensive transit network that links key areas & land uses of the city.
▪ Conservation of natural resources, heritage and local art & culture
▪ Better quality of life through improved physical & social infrastructure facilities.

3.2 Our Approach

Our approach will be based on key deliverables and activities of the formulation of GIS based Master Plan which includes Spatial database creation, Sector wise Urban database creation, Sector-wise gap identification, Potential growth identification and formulation of potential strategies for future growth of the town.
1. **Base map and Thematic maps**
   Final base maps in the form of user-friendly spatial products at the functional scale.
   - Existing Land Use (ELU) map.
   - Draft GIS base map of Scale 1:2500 high resolution satellite data will be provided by the client.
   - Field verification of base map + attribute data collection.
   - Base map updating.

2. **Urban Database Creation**
   Sector-wise data collection and data analysis report of 25 aspects as per Design & Standards.
   - Preparatory study.
   - Population projection.
   - Secondary data analysis (Data collection from other reports available for project area).
   - Sectoral study of ELU (amenities, transportation, housing, environment).
   - Gap analysis.
   - Growth dynamics.
   - Future scenarios.

3. **Formulation of Draft Master plan**
   - Planning & Preparation of draft Development Plan.
   - Implementation status of previously sanctioned Development Plan (if any)
- Compilation, coordination and inclusion of other agencies Proposals.
- Reservation Policy.
- Study of best practices/ Planning Standards.
- Preparation of Proposed Land Use maps.
- Participatory Planning Methods (involving stakeholders, etc.)
- Development Control Regulations (DCR)
- Development Plan Report.

4. **Capacity building**

M/s. All India Institute of Local Self Government will provide support for one year from the date of approval of Draft Master Plan for the plan approval process.

3.3 **Our Methodology**

The project is largely concerned with formulation of Master Plan for year 2030. The methodology will be comprised of preparing baseline information on population characteristics and its socio-economic attributes, proposing land utilization details in order to cater the requirement of the projected future population growth, density, migration, and employment into consideration. New proposals will be proposed in the draft plan by keeping proposed developments in the region in addition to the natural growth of Tawang Town. The detailed methodology adopted for every stage is shown in Figure 14.
Formulation of GIS based Master Plan, Tawang Town, A.P

Inception Report

Key Stages

1. Inception Stage
   - Reconnaissance survey
   - Identification of data sources
   - Secondary data
   - Identification of Stakeholders
   - Key line departments
   - Associations NGOs & Society
   - Citizens
   - Stakeholders Consultation

2. Data collection & Base Map preparation
   - Primary Survey
   - Demarcation of Study
   - Procurement Satellite data
   - Landuse Survey
   - Ground Truthing
   - Quality check and vetting
   - Spatial attribute data collection
   - GIS Base map
   - Landuse, Household, Traffic & Transportation, stakeholders interview
   - Demography, Economy, Culture, Tourism, Livelihood etc.
   - Water Supply, Municipal Solid Waste Management, Waste water Management, Storm water drain, Electricity, Health, Education, Public amenities, Parks etc.

3. Data Analysis
   - Socio-Economic Assessment
   - Infrastructure Assessment
   - Environmental Assessment
   - Existing Physical & Social Infra Assessment
   - Vulnerability
   - Eco-Sensitive Zone
   - Risk Management

4. Projected Requirements, Issues & Potentials
   - Sector wise Demand & Supply Assessment
   - Projected requirements
   - Thematic map generation
   - Development of sectoral strategies
   - Land Suitability
   - Identification of land for development
   - Financial Analysis

5. Draft Report
   - Draft Proposal
   - Policy Formulation
   - Implementation plan
   - Stakeholders Inputs

6. Draft Master Plan
   - Final Proposal
   - Public hearing
   - Incorporating Suggestions/Comments
   - Capacity Building Support

Figure 14. Methodology
A. Stage 1: Project Initiation

The objective of this stage is to initiate the project by finalizing the work plan, methodology, and the familiarization of the project team with the project area.

a. **Project team mobilization:** The project team has already been mobilized and a local office has been setup in Itanagar in order to initiate the work on the Master Plan for Tawang town.

b. **Identification of secondary sources and required data:** The project team-initiated identification and collection of secondary data from respective sources immediately after the team mobilization.

c. **Baseline profile of the project area:** The baseline profile of the project area has been compiled as the part of this stage i.e., inception report. It comprised of description of location, area, administrative units, physical setting, regional connectivity along with delineation rationale, demographic and economic aspects of the project area.

d. **Conceptualization of the project area:** Conceptualization was prepared based on initial understanding of the project area by reconnaissance survey. It is prepared along major development and transportation corridors in order to understand the varying spatial patterns and upcoming development along outer rims for the delineated study area.

e. Finalization of the methodology and work plan

f. Initial perception of the project area

g. **Study of previous planning initiatives:** It involves the review of the previous planning initiatives that has been undertaken by different authorities for the project area. It has been done to assess the constraints and shortcomings associated with the previous plans.

The project team has meet the officials (Mr. Likha Suraj, Town Planner & Nodal Officer and Mr. Tabom Tamut, ATP) from Department of Town Planning and Urban Local Bodies, Govt. of A.P. The officials gave necessary direction and approval for conducting Reconnaissance survey at Tawang town. The Reconnaissance survey has been conducted in the third week of January, 2019. During the site visit, the project team has consulted with various Governmental department like DUDA/ Department of Urban Development and Housing, District Statistical department, District Forest Department, Land Management department, District Tourism department and Office of the Deputy Commissioner in
Tawang. The Project team has initiated and submitted the letter for cooperation to the Office of the Deputy Commissioner, Tawang. For stage 2 data collection, the letter from DC office are being sent to various line department. The following secondary data has been collected by project team during initial site visit are:

1. Development Plan Tawang 2031 (From DUDA)
2. Tawang circle GIS Base map (Department of Town Planning and Urban Local Bodies)
3. Tawang District Statistical Hand book (District Statistical Department)
4. Tawang District Tourism booklet (District Tourism Department)
5. Demographic data (Census of India)

**B. Stage 2: Preparation of Base Map and Existing Land Use Map**

a. **Collection of existing data:** Existing data from all the key line departments and Town Planning & ULBs will be collected in terms of maps & reports and it will be incorporated in the various layer formats in ArcGIS.

b. **Physical Survey:** An extensive physical survey will be carried out to develop detailed land use map of the region.

c. **Incorporating Physical Survey Data:** Detailed data collected from physical survey will be updated in the form of attributes on ArcGIS platform to develop the database of the region.

d. **Vetting of Base Map:** After all the data updating the base map & existing land use map will be vetted by all the stakeholders and Town Planning & ULBs department.

e. **Finalisation of Existing Land Use & Base Map:** after modification made as per stakeholders review final base map & existing land use map will be prepared.
C. Stage 3: Analysis of Existing Situation

The existing situation analysis will be done in this stage for the delineated Tawang LPA. Following steps will be involved in accomplishment of the task.

a. **Socio-Economic Assessment:** Socio-economic assessment will be done for all the blocks as well villages coming under the Tawang LPA region for the year 1991, 2001 & 2011. Population growth, distribution, occupational structure, workforce participation rate etc. will be analysed and it will be further converted into thematic maps in order to show the spatial variation.

b. **Settlement Structure Analysis:** Under this, the settlement hierarchy in terms of population size will be analysed to understand the spatial distribution of the settlement structure both in urban and rural settlements.

c. **Land Potential Analysis:** The Land Potential Analysis will be prepared in order to identify the potential areas for development under different land uses. The Parameters would be considered for evaluation of the project area will be: connectivity (major/minor road analysis), proximity to existing urban centres and village sites, proximity to existing industrial areas, land/property values, Tourism connectivity etc.

d. **Existing Infrastructure Assessment:** Existing infrastructure and demand estimates for social infrastructure such as education, health facilities demand assessment will be undertaken at village and town level. It also involves an analysis of physical infrastructure such as road, railways, water supply, solid waste management, sewerage, sanitation, drainage etc. It will help in assessing the demand-supply scenario, identification of gaps and related issues. The URDPFI guidelines may also be referred identifying gaps.

D. Stage 4 & 5: Future projections and Concept Plan

a. Population projection for 2030 will be calculated based on method mentioned in the data collection chapter.

b. Economic forecasting in terms of requirement of workforce including skilled and professional workforce will be prepared. This forecasting will comprise of two main components i.e., forecasting occupational structure and employment structure. This would be based on percentage share of primary, secondary, and
tertiary workers in the region. It will help in understanding the need of redistribution of development activities and prioritizing future growth.

c. Based on land suitability & carrying capacity analysis the spatial proposals will be developed like open spaces, infrastructure components, educational, health & public semi-public etc

**E. Stage 6: Master Plan and DCR**

Development control regulations will be provided as at present there is complete absence of such regulations leading to unplanned growth in the study area. Finally, proposal will be made in order to help to ascertain the future development trends. It will comprise of providing the land requirement for future development with appropriate density standards and requirements for various activities and land use zones along with zoning, phasing and providing land development mechanisms for the same. This would enable possible ways of generating revenue.

**3.4 Spatial Analysis Methods**

**3.4.1 Land Suitability Analysis**

Suitability Analysis or weighted site selection is a GIS tool used to spatially highlight suitable locations for directing growth or sites for preservation or conservation, like, ecologically sensitive areas, heritage areas etc. GIS allows planners to add weightage to different layers pertinent to the final site selection. The final GIS layer is an additive of the weighted layers and which spatially ranks locations according to their suitability. Suitability analysis is an important tool for site selection because allows planners to pick the best and the next-best sites for planning interventions and excluding the sensitive areas in a region.

The Tawang Local Planning Area has experienced fast paced growth over the last few years, owing to the increased population, tourism and educational institutions. The growth in the region is expected to continue as it is further equipped with physical infrastructure and Arunachal Trans Highway. However, the region also faces a threat from indiscriminate growth, which can lead to a poor quality of life and destroy natural and cultural heritage areas. Hence, in order to direct growth along the existing city centres, close to employment, transit and amenities and protect productive agricultural lands and ecological areas from rampant urban development; the Master Plan shall rely upon the suitability analysis tool for planning development in the region. Table below charts the
preliminary criteria that have been identified to analyse land suitability used to achieve these goals.

3.4.2 Carrying Capacity Analysis

The urban carrying capacity can be defined as the level of human activities, population growth, patterns & extent of land use, physical development, which can be sustained by the urban environment without causing serious degradation and irreversible damage.

The carrying capacity will be a useful tool for determining the infrastructure capacity, Institutional capacity, environmental capacity, sustainable capacity and bio centric capacity of the region which will directly help in developing strategies for the region. The various carrying capacity analyses done for the region are explained below:

a. **Infrastructure Capacity Level:** The intensity and pattern of resource usage is estimated for the development of infrastructure like, water supply system, sewage system, transportation system, waste disposal system, etc.

b. **Institutional Capacity Level:** The various legal and political frameworks that have been made to limit urban activities are considered here. The level of enforcement of various acts like Environment protection acts, Biodiversity conservations act, as well as zoning regulations, building permits, land use ordinances, etc. are assessed to evaluate the carrying capacity.

c. **Perceptual Carrying Capacity:** These constraints are generally perception based, i.e. they reflect the idea of a common man towards its environment. The way of assessment is social surveys whereby the basic thinking of people & their duties towards environment will be evaluated.

d. **Environmental Capacity Level:** With this we will easily understand the state of productivity of the environment, e.g. agricultural productivity by evaluating the past data. Another way of assessment is the availability of clean air & water, low pollution, etc.

e. **Sustainable Capacity Level:** The factors which are assessed at this level are long term based. The basic resource flow through the urban area to its ultimate sink is evaluated at this capacity level. Hence, an idea can be achieved corresponding to a particular resource as how long it will be available for usage. If a resource is getting scarce then efficient steps could be taken to sustain it for long.
f. **Bio Centric Capacity Level:** This capacity level deals with ethics related to life on earth. At this level, the different threats are assessed which harm the integrity, stability, and beauty of the biotic community of an urban area. Unlike the previous capacity levels that totally deal with human & its need, this capacity level embraces all forms of life as well as their requirements from the environment.

**4. Stakeholders Consultation Strategy**

Facilitating the involvement of the public can inform and improve public policy. Obtaining such involvement allows government to make decisions that are responsive to the needs and will of the residents of the region. However, there is not much progress in the development of town which would impact the consultation process.

**4.1 Engagement Strategy**

The approach to public engagement for the Master Plan will be based on the following preliminary set of goals:

- To demonstrate the varying aspects of Master Plan preparation in the Tawang Regional Area context.
- To involve representatives of the civil society such as citizens, trade associations, community-based organizations and NGOs in the planning process.
- To build an understanding among stakeholders of the effort, timing and market conditions needed to make the master planning effort work and to see it implemented.
- To create opportunities for stakeholders and experts to provide meaningful input into the process, educating the consulting team on the local issues and national policies that otherwise might not be raised.

The public engagement strategy will be based on a globally established spectrum of engagement, including tools that **INFORM, CONSULT** and **INVOLVE**. As shown in the graphic below:
Our strategy will begin with engaging all the key line departments of the region to INFORM the master plan preparation process and develop initial objectives and vision for the area. In the later stage engaging the community through CONSULTATIONS for identifying issues and challenges in the region. At the initial stages of planning, the engagement will be limited to a smaller group of people at a time to enable a focused dialogue leading to meaningful input. Working Group Discussions and Interviews will be the primary engagement tools used at this stage.

As the project moves forward, we will seek to INVOLVE larger and mixed groups of stakeholders in participatory planning exercises. We will conduct Stakeholder Workshops to present the findings of the existing conditions analysis and allow for broader feedback and identification of needs and opportunities. These workshops will include members of government agencies as well as the private sector and civil society members.

4.2 Engagement Tools

A. Stakeholder Workshops

**Purpose:** To engage persons/organisations who will be directly impacted by master plan strategies in discussions with experts.

Stakeholders, including persons from the industrial sector, real estate sector, commercial sector, agricultural community, labour unions, etc. will be identified and invited to interactive workshop sessions. These sessions will help identify issues and threats faced by various communities with regards to development of the town. The workshops are generally formatted as intensive one or two-day sessions that focus on the issues facing the community, either design-oriented or with social relevance that arrives at collaborative solutions. Simply stated, the end product should be a combination of ideas, strategies, and a “community vision” to guide the development process.
B. Survey

Purpose: To engage the public at large to understand what their needs are and what they aspire for in the long term.

The project team will prepare questionnaires and send survey teams to 15 to 20 percent residents of Tawang town area. The results will be shared with the Clients in the form of a report that will outline the key concerns and issues faced by the community. This will serve as one of the most important factors in developing the vision for the Master Plan.

C. Working Group Discussions

Purpose: To connect directly with key experts to gain a better understanding of existing conditions, identify issues and development priorities within the town areas.

Working groups will be identified to include subject matter experts and commentators on related fields. The team will reach out to individuals from NGOs, academic institutions and government organisations to form these groups. Working Group meetings will be held on a regular basis to help in the planning process.

D. Interviews

Purpose: To engage individuals or groups who have detailed knowledge and information about ground conditions in Tawang LPA.

The project team will interview individuals and groups who work within the developmental realm in Tawang LPA. These individuals may belong to government, non-government or private organisations. The interviews will help to corroborate and elaborate on the findings from stakeholder workshops and surveys.

4.3 Government Official- Key Line Department

There are many important reasons to establish and maintain good working relationships with governmental authorities at different levels, and to keep them informed of the project’s activities and anticipated impacts. Government support can be critical to the success of a project, and routine engagement with various regulatory and public service authorities is often required at all cycles of the project.

Consultation of key line departments will provide qualitative data enabling cross checking of the data obtained and analysis made with the ground reality.
Following are the government departments identified in the earlier chapter who are direct stakeholders to the project.

This section will help to understand the local government’s functionality in a more detailed manner and also appreciate their concerns about the project area. It will help in understanding various special government schemes implemented or proposed for the islands. It will also provide a platform to understand the possibilities of inter-convergence of various schemes.

a. What are the various schemes from the department that can directly contribute to the project’s success? Can the schemes be converged?

b. What are major on-going and upcoming projects under your department?

![Key Line Departments](image)

**Figure 18. List of Key Line Departments**

### 5. Way Forward

The current inception report presented a brief description of the project area in terms of its description of Tawang town regional setting & connectivity, administrative set up, climate, tourism etc. The insight of demographic profile has also been undertaken of the project area. The chapter on Project approach is expected to give the reader a clear understanding of the methods being adopted and line of action proposed for this assignment. For an assignment as extensive & comprehensive as this, often there is ambiguity and lack of clarity in the level of detailing required for various individual sections. Key stakeholders have been identified and the tentative plan of action for various consultations have been represented through a set of questionnaires designed for various target groups. It has been ensured that
all the required sections and key sectors to be assessed during this assignment have been addressed in this inception report. This provides a strong foundation to the current assignment. The next deliverable now is expected to comprise of a complete micro detail of existing situation and converting into maps and data base system for further analysis. Schematic drawings and conceptual layouts will lead the way for preliminary options for proposal developments, which will be detailed in subsequent deliverables after extensive consultations with client and local stakeholders. In the coming weeks, extensive surveys, site visits & consultations are planned that would provide authentic and extensive database for the future deliverables. The team is now focused to and is giving in the best efforts to the forthcoming deliverable on attributes collection and base map/existing land use map preparation.

5.1 Stage 2: Data collection & Base map preparation

Data collection is the first step towards developing a baseline assessment for Tawang Local Planning Area. The scale and scope of the Master Plan project requires a comprehensive understanding of the planning area including its existing physical and social infrastructure, regional settings, economy, environment, culture etc.

Data will be collected from multiple sources using a number of different data collection methods. Closed and Open-Ended Questionnaires, Informal field interactions, Focus Group Discussions, Field observations from the team on-site, infrastructure demand surveys are some of the methods which shall be undertaken as part of project necessity. The data collection will be done in broadly 2 channels.

**TYPE OF DATA COLLECTION**

<table>
<thead>
<tr>
<th>Primary Data</th>
<th>Secondary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Household Survey</td>
<td>• Census Data</td>
</tr>
<tr>
<td>• Traffic &amp; Transport Survey</td>
<td>• Data Documentation from different</td>
</tr>
<tr>
<td>• Tourism Survey</td>
<td>• Government departments</td>
</tr>
<tr>
<td>• Focused Group Discussion</td>
<td>• Existing Reports</td>
</tr>
<tr>
<td>• Infrastructure Assessment</td>
<td>• Surveys &amp; Reports published by</td>
</tr>
<tr>
<td>• Stakeholders Workshop</td>
<td>private entities</td>
</tr>
</tbody>
</table>

*Figure 19. Classification of Data Collection*
Table 1. Data collection tools

<table>
<thead>
<tr>
<th>SL. No</th>
<th>Data to be Collected</th>
<th>Tools Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Socio-Economic Assessment</td>
<td>Questionnaire Survey, Informal Interaction with Local</td>
</tr>
<tr>
<td>2</td>
<td>Traffic &amp; Transport</td>
<td>Vehicle Count, Speed delay, Carrying Capacity of roads</td>
</tr>
<tr>
<td>3</td>
<td>Tourist Profile</td>
<td>Questionnaire Survey</td>
</tr>
<tr>
<td>4</td>
<td>Infrastructure Assessment</td>
<td>Primary Observation, Informal Interaction with locals &amp; Key line departments, Focus Group Discussions (FGDs)</td>
</tr>
<tr>
<td>5</td>
<td>Stakeholders Workshop</td>
<td>Formal &amp; Informal Meetings</td>
</tr>
</tbody>
</table>

Primary survey will be conducted to study the land use pattern, socio-economic status of citizen, traffic & transportation and tourism within planning area. Primary data collection would be undertaken through a rigorous regime of site visits, stakeholder consultation, informal field interactions, on-site observations, Questionnaire surveys, and technical surveys. (Such as quantitative and qualitative survey for transport infrastructure).

5.1.1 The Primary data would encompass

- Household Survey: A detailed questionnaire survey will be conducted within town area by random sampling method of approximately 15 to 20 percent population of the town to have a better idea about household size, income, economic activity, literacy etc. An advertisement will be published in local newspapers before the survey to inform residents about the project and prepare them for the surveys.

- Infrastructure Assessment: Qualitative and quantitative data would be collected with regard to existing situation and demand for Water supply, Sanitation, Solid Waste, Street lighting, Transportation – through informal interactions with local communities, commercial vendors, etc. at the site and through transport infrastructure surveys at each of the selected junctions.

- Traffic & Transport Survey: Spot speed survey at accident prone spots (based on accident data), Traffic survey at major junctions in the city, carrying capacity of major roads.

- Inventory of Tourist Amenities: A detailed inventory would be made for tourist amenities (on- site, off-site, primary and ancillary amenities) with relation to the
identified tourist development locations- rough observations at the site, informal interaction with local population, commercial vendors, service providers, etc.

- Focus Group Discussion: Rough Snowball sampling, selected groups and representatives from associations like Market associations, vendors associations, taxi or auto driver association, student association, labour association etc. would be invited for focus group discussions at certain locations or their place of business for securing their inputs and understanding their issues, interests and obtaining suggestions.

5.1.2 The Secondary data would encompass

Detailed Physical infrastructure assessment and socio-economic assessment will be conducted using the secondary data obtained from various departments and sources. Secondary data would be procured primarily from state government departments and agencies in the form of detailed interviews, Official reports, Studies, Plans, Policies, Regulations, DPRs, Maps, Publications, etc. Government Departments- A detailed list of data (both available and to be procured) from various government departments has been identified. Data would include interview with high ranking officials and representatives from various government agencies, discussions with various state and local level authorities. Priority will be given to latest, updated, authentic and official government data. Sources such as published reports, research papers, academic journals, etc. would only be ancillary to the aforementioned sources, and would be verified through primary sources and series of consultations.

5.1.3 Approach for Data Collection

The Master Plan intends to use a data driven approach to allow for evidence-based planning. The success of the data-driven approach is reliant upon the quality of the data gathered and the effectiveness of its analysis and interpretation. Traditional Indian planners have not managed to follow such an approach due to lack of quality data. However technological advances in satellite mapping, the ease of collecting empirical data through web-based tools and enhanced ability to analyse data through tools like GIS can now allow for evidence-based planning. A data driven approach will help Tawang local planning area develop efficient and reliable mechanisms to make nuanced planning and investment decisions as well as defend them.
A. Use of Statistical tools

**Simple Random Sampling**

Given the Scale of the assignment and the quantum of spatial, quantitative and qualitative data that would be gathered, a need is felt for a sound and efficient method for its analysis, altering and rectification. Many statistical tools would be employed by the consultant for this task. For the purposes of the study, we can divide our analyses based on Spatial and Non-Spatial data. Some of the statistical tools that may be employed for our analysis are described below.

B. Analysis of Non-Spatial Data

Some of the basic statistical analysis would be measurement of centrality, spread, distribution shape, and accounting of outliers through graphical & non-graphical exploratory methods.

- **Population Projections** would be done using Arithmetic, Geometric and Incremental increase, choosing one or a combination of two or more methods based on their suitability for the task

- **Regression Analysis** is a popular tool for calculating relationship (direct or inverse) between two or more variables/phenomenon, where one is a dependent variable and other (one or more) independent variables. For our study, regression analysis can help explain relationships and dependencies between several parameters (such as between tourism inflow and investment in social or physical infrastructure, between tourist inflow and environmental impact, etc.) that may vary site to site, with time or with level of proposed intervention. This tool may even be used for informed recommendations by studying such relationships in previous initiatives, plans, etc.

- **Calculation of Confidence Intervals** is a helpful tool for assessing reliability of the process for surveys and sampling, Standard deviations, Regression analysis, along with any other quantitative analysis that may be undertaken.

- **Delphi method of data analysis:** The Delphi process has been used in various fields of study such as program planning, needs assessment, policy determination, and resource utilization to develop a full range of alternatives, explore or expose underlying assumptions, as well as correlate judgments on a topic spanning a wide range of disciplines. The Delphi technique is well suited as a method for consensus-building by using a series of questionnaires
delivered using multiple iterations to collect data from a panel of selected subjects.

C. Analysis of Spatial Data (Vector & Raster based)

- **Weighted Average Overlay Analysis/Land Suitability Analysis:**
  Different areas are given numeric values based on scores given to certain identified parameters. These identified parameters have a varying degree of impact and importance for the study and are therefore given weightages based on their relative degree of importance with regard to each other. Schematic maps are prepared for the study area based on each parameter, which are overlaid over each other (after giving due weightages to each parameter) giving a final output.

- **Carrying Capacity Analysis:**
  It will help in selecting the locations for social and physical infrastructure or may be a cluster considering the various parameters like environment, economics and existing levels of services. It may be also helpful to define the possibility of different development scenario which may possibly occur for particular area.

5.1.4 GIS Data Collection

The last part describes the data requirements for developing a GIS base map and overlay maps for GIS-based spatial analyses.

GIS database creation and updating of existing GIS data is one of the major challenges of study project. Since Master Plan adopts a GIS based framework to consolidate all physical features in a GIS platform for advanced spatial analysis and decision making. It mainly requires secondary data collection in the form of GIS or CAD layers along with their attributes. Although some of the layers has been provided by the Town Planning Department but needed some update. The methodology for creation of a GIS database and the format and structure for GIS data delivery is presented here along with a status update on data collection.

As shown in Figure 20 the GIS Data Collection Methodology, the project team will begin field documentation and verification on approval on the Inception Report.
6. Conclusion

This Inception report has brief out the Reconnaissance survey and the Planning process going to undertake in the formulation of GIS based Master Plan of Tawang town. At the end of the data collection at the local level, the team will have set of quantitative (spatial as well as non-spatial), and qualitative data to make analyses and inferences. The output from this Data collection and Base Map preparation stage will lead to understanding the level of intervention required at various sectors for the subsequent deliverables of the project.
Table 2. Deliverables and time schedule of the project

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Stage Report</th>
<th>No. of Copies</th>
<th>Schedule</th>
<th>Cumulative Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Inception Report</td>
<td>2 + soft copy</td>
<td>30 days from date of award</td>
<td>30 days</td>
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<tr>
<td>ii)</td>
<td>Spatial attribute collection and vetting of Base Maps including data collection from field indicating the status of the land (allotted, private/Govt, landuse etc)</td>
<td>2 + soft copy</td>
<td>100 days from date of approval of Inception Report#</td>
<td>130 days</td>
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<tr>
<td>iii)</td>
<td>Data Analysis Report</td>
<td>2 + soft copy</td>
<td>120 days from date of approval of Base Map</td>
<td>250 days</td>
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<tr>
<td>iv)</td>
<td>Projected Requirements, Issues &amp; Potentials</td>
<td>2 + soft copy</td>
<td>45 days from date of approval of Data Analysis Report</td>
<td>295 days</td>
</tr>
<tr>
<td>v)</td>
<td>Draft Proposals</td>
<td>10 + soft copy</td>
<td>60 days from date of approval of Projected Requirements, Issues &amp; Potentials</td>
<td>355 days</td>
</tr>
<tr>
<td>vi)</td>
<td>Draft Master Plan</td>
<td>10 + soft copy</td>
<td>45 days from the date of receiving feedback from the Client</td>
<td>390 days</td>
</tr>
</tbody>
</table>
Annexure 1: Tawang urban area notification

GOVERNMENT OF ARUNACHAL PRADESH
DEPARTMENT OF URBAN DEVELOPMENT
ITANAGAR

NOTIFICATION

NO. DOH/MP-08/2001-2002/
Dated: Itanagar, the 24th January '06

The Governor of Arunachal Pradesh is pleased to notify the following places of
Arunachal Pradesh as the ‘Urban Areas’ with immediate effect:

Jiribam, Bomdila, Seppa, Itanagar capital complex including (Itanagar,
Naharlagun, Nirjuli, Banderdewa, Dolumukh) Ziro, Diporijo, Along,
Tawang, Namsai, Khonsa, Daporijo, Longding, Dirang, Yingkeng and
Srigalak.

Applicability of Notification

1. The notification and demarcation of ‘Urban Areas’ shall be applicable to:
   a) Implementation of various Development Programs of Urban Development
      Department.
   b) Implementation of various policies, such as Policy on Levy of Service
      Charges.
   c) Enactment and enforcement of the Town & Country Planning Act and the
      Zoning Regulation, Land-use regulations and Building bye-laws for
      guiding land use and construction activities.
   d) Evolving and enforcing the master plans of various urban areas.
   e) Defining jurisdiction of Urban Local Bodies, like municipalities and
      municipal corporations, and of Panchayati Raj Institutions.
   f) Restricting scope of various Development Programs of Rural
      Development Department, like JAY, JGSY, SGSY, etc.

Sd/-
(Y. D. Thongchir)IAS
Secretary, UD,
Govt. of Arunachal Pradesh,
Itanagar.

MEMO NO. DOH/MP-08/2001-2002/5 Dated Itanagar, the 24th Jan. '06.

Copy to:-
1. The Secretary to the Governor, Govt. of Arunachal Pradesh, Itanagar
   for information.
2. The Commissioner to the Hon’ble Chief Minister, Arunachal Pradesh,
   Itanagar for information.
3. P.S to the Chief Secretary, Govt. of Arunachal Pradesh, Itanagar.
4. The PS to the Principle Secretary (Fin) Govt. of Arunachal Pradesh,
   Itanagar for information.
5. All Secretaries/Commissioner, Govt. of Arunachal Pradesh for
   information.
6. The PS to the Hon’ble Minister, Urban Development, Arunachal
   Pradesh.
7. All Hon’ble Minister, Arunachal Pradesh for information.
8. All Head of the Officers, Govt. of Arunachal Pradesh, for information.
9. The All Deputy Commissioner-cum-Chairman, DUDA A.P.
10. The Director cum Addl. Chief Engineer (UD) Govt. of Arunachal
    Pradesh, Itanagar.
11. The Director, IPR Govt. of Arunachal Pradesh, Naharlagun with
    request to public the same in next AP Gazette.
12. The Director, Town Planning, Govt. of A.P, Itanagar for information.

Under Secretary, UD,
Govt. of Arunachal Pradesh,
Itanagar.
Annexure 2: Tawang LPA notification

GOVERNMENT OF ARUNACHAL PRADESH
ARUNACHAL PRADESH CIVIL SECRETARIAT
ITANAGAR

Date: Itanagar the 25th August 2014

NOTIFICATION

In exercise of the power conferred by the section 9 (1) & (3) of the Arunachal Pradesh Urban and Country Planning Act 2007, (Act No. 3 of 2008), the Governor of Arunachal Pradesh is pleased to constitute the Local Planning Authority (LPA) for Tawang Town of Tawang District of Arunachal Pradesh, namely as Tawang Planning Authority consisting of the following members:-

1. Deputy Commissioner
2. Hon’ble MLA of Town
3. Zila Chairperson/Chief Councillor
4. Project Director, (RD)
5. Supt. of Police
6. District Medical Officer
7. Executive Engineer, Power/PHE/PWD/RWD
8. Deputy Director (UD)
9. Divisional Forest Officer
10. District Land Revenue & Settlement Officer
11. Chairman may nominate 2 (Two) person having fair knowledge of Urban Planning as member which may include MP, MLA, NGO’s, Senior Citizen, Geologist, Urban Planner etc.
12. Town Planner/Assistant Town Planner, Bomdila (Temporary)

Chairperson
Member
Member
Ex-Officio
Ex-Officio
Ex-Officio
Ex-Officio
Ex-Officio
Ex-Officio
Ex-Officio
Member
Member
Ex-Officio

(Sd/-)
(K. Khole) IAS
Secretary to Govt. of Arunachal Pradesh,
Department of Town Planning & Urban Local Bodies
Itanagar

Dated Itanagar the 25th August 2014

Copy to:
1. The Secretary to His Excellency, The Governor of Arunachal Pradesh, Itanagar for information please.
2. The Commissioner to the Hon’ble Chief Minister, Govt. of Arunachal Pradesh, Itanagar for information please.
3. PS to Hon’ble Minister, Department of Town Planning & Urban Local Bodies, Arunachal Pradesh, for information please.
4. PS to Speaker and Dy. Speaker, Arunachal Pradesh Legislative Assembly, Naharlagun for information please.
5. All Hon’ble Ministers, Parliamentary Secretaries and Hon’ble Members of Legislative Assembly, Arunachal Pradesh, for information please.
6. P.S. to the Chief Secretary, Govt. of Arunachal Pradesh, Itanagar for information please.
7. All Commissioners/Secretaries, Govt. of Arunachal Pradesh, Itanagar for information please.
8. All Head of Departments, Govt. of Arunachal Pradesh, Itanagar for information please.
9. The Director Town Planning and Urban Local Bodies, Govt. of Arunachal Pradesh, Itanagar, for information please.
10. The IPR & Director Printing, Govt. of Arunachal Pradesh, Itanagar, for information and necessary action please.
11. The Deputy Commissioner, Tawang for information please.
12. The All Deputy Commissioners, Govt. of Arunachal Pradesh for information please.
13. The All members of Tawang Planning Authority for information please.

[Signature]
Deputy Secretary to Govt. of Arunachal Pradesh,
Department of Town Planning & Urban Local Bodies
Itanagar
Annexure 3: Project Initiation letter to DC, Tawang

Department of Town Planning & Urban Local Bodies
Arunachal Pradesh Government

File No. DTP/MP-80/2018-2019

To,

The Deputy Commissioner
Tawang District
Govt. of Arunachal Pradesh
Itanagar

Subject: Preparation of Master Plan of Tawang Township

Dated Itanagar the 23rd January 2019

Sir,

In continuation to our earlier letter under reference, it is to inform you that, the department has completed the Urban Mapping of Tawang Township including generation of Geo-Spatial database in GIS platform. Now, the department has initiated for formulation of Master Plan of Tawang Township in GIS platform for regulating its growth and development and under provisions of Arunachal Pradesh Urban and Country Planning Act, 2007. For the purpose, one Mr’s All India Institute of Local Self Government, New Delhi, a consulting firm has been engaged by the department.

Therefore, it is requested kindly to finalise the Tawang Planning Area Boundary at an early date and further to direct all central/state government bodies, Panchayat leaders, Public, NGO’s etc. under your jurisdiction, to kindly furnish the information/data sought by the consultant for further preparation of a good Master Plan.

This is for your kind information and sincerely requesting for your co-operation please.

(Likha Suri)
Town Planner

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1. SPA to Secretary, Department of Town Planning & ULBs, Government of Arunachal Pradesh for information.
2. The Director, Department of Town Planning & ULBs, Government of Arunachal Pradesh for information.
3. The Executive Engineer, Department of UD & Housing, Tawang Division, Government of Arunachal Pradesh for information.
4. Shri Tabom Tamut, Assistant Town Planner-Cum-Member Secretary, Tawang Planning Authority, Government of Arunachal Pradesh for information and liaisoning please.
5. Office Copy

(Likha Suri)
Town Planner
Department of Town Planning & ULBs
Government of Arunachal Pradesh
Itanagar