



## **An Overview of Micro Level Developmental Planning Strategies in Siaha District, Mizoram**

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### *Abstract*

*Planning refers to taking decisions to implement them to attain economic development. Planning in some way has become essential for the growth of a nation or a region, and Siaha District is no different. Planning is done for a variety of reasons, from power politics to socioeconomic development. However, the majority of planning is focused on the socioeconomic advancement of a nation, culture, or area. The practise of regional planning is now accepted on a global scale, and it has been used to eliminate the current regional economic disparities. Depending on the goal, planning can take many different forms. Planning can be used for development or the economy. Planning can also be geographical or sectoral. These days, sectoral planning is the type of planning that is most frequently used. On the other side, developmental or active spatial planning sets a higher bar for itself. A geographic area that receives the effects of economic decisions is referred to as a planning region. This essay sought to investigate Siaha District micro-level planning for the district's inclusive, sustainable, and broad overall growth. A clear illustration of the issues one can encounter as a result of uncontrolled and unplanned growth can be found in the Siaha district's inadequate infrastructure and civic facilities in the midst of a rapidly expanding population. In the current research, the ordering of human activities for socioeconomic transformation in supra-local space in a rural economy based on agriculture vs supra-urban space in a city-centric economy is the focus. To maintain a balance in "planning and development" between national priorities and local requirements and a decentralised planning approach to a country's overall growth, the notion of micro-planning has emerged in the current setting.*

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## **Introduction**

Planning on a smaller scale is essential to progress. There are several applications for micro-planning in a wide range of scenarios. Without defining the exact level of planning, the phrase "micro-planning" is somewhat ambiguous. These days, "area planning," a more current phrase, is frequently used to replace the term "micro-planning." The word "micro-planning" essentially denotes a multi-level, decentralised planning approach to a nation's overall growth. Micro-planning is a type of spatial development planning that makes the best use of all resources, including natural and human ones. It makes an effort to share the benefits of growth across regions and social classes within the region, which can lessen socioeconomic inequalities and enhance the standard of living for the majority of people. To put it another way, micro-planning is the organisation of human activities for socioeconomic transformation in "supra-local space" in a rural economy based on agriculture as opposed to supra-urban space in a dominantly urban economy. Micro-planning has become popular in India as a way to strike a balance between local needs and national priorities in "planning and development."

Since each area has its own personality, capabilities, and demands, micro-planning has gained considerable relevance as a development approach. General planning completed at the national level does not always guarantee its applicability at local levels. Therefore, a good strategy must be cognizant of these micro-level variances while taking into account the constraints provided by national priorities, resources, and funding investments. Since the very beginning of Indian planning, emphasis has been placed on fostering a higher standard of living for the populace through the effective exploitation of national resources, increased production, and provision of employment opportunities for all within a philosophy that is deeply rooted in the concepts of democracy and socialism. Special emphasis has been placed on the welfare of rural areas and the weaker/backward groups in order to achieve these goals.

## **What is Planning?**

Planning in one form or the other has become imperative for developing a country or a region, and Siaha District is no exception. The current economic and social conditions necessitate development in a planned manner. The unplanned growth leads not only to regional differences in levels of development but also to a host of other problems. Inadequate infrastructure and civic amenities in the rapidly growing population provide a clear example of problems one may face due to uncontrolled and unplanned growth. Planning provides an efficient tool to steer the growth process in the desired direction.

Planning is done for various purposes ranging from socioeconomic growth to power politics. However, most planning concerns the socioeconomic development of a country, society or region. Planning is taken up to solve the problems faced today and overcome the problems that may be faced in the future. Planning can be seen as a way to set up human

society in such a way that it can adapt to the shifting socio-technical environment and make the most of it for the benefit of its constituents.

Regional planning as a technique has become recognized worldwide, and this has been applied to wipe out the existing regional economic disparity. However, the initial problem is how to restrict the units or regions of lower levels, which requires an intensive study of micro-geomorphology, micro-climatology and other factors of the natural environment in the context of the existing population and economic conditions. For developing strategies for planning, it is extremely necessary to study its general geographical conditions and then suitably divide them into planning regions which can be done by intensive study of each region. The region may hold industries or have agricultural, lumbering, and horticulture prospects.

Necessary plans then should be chalked out to develop the area in the required direction. Major problems like irrigation, drainage, afforestation, growing pastures and developing transport and communication lines will arise at this stage. These must be done to match the potential resources with the needs of the people. It is also necessary that, at times, a surplus labour force from one area must be withdrawn to other areas to facilitate the optimum utilization of natural and human resources.

### **Study Area**

Siaha District, located in southeast Mizoram, covers 1399.90 sq km in total, or 6.64% of the state's total area. Next to the Kolasib district, it is the second-smallest district in Mizoram. Comparatively, it was the District of Mizoram with the lowest population, making up only 5.18% of the state's total population. The area is between the latitudes of 21°9' and 22°47' N and the longitudes of 92°30' to 92°58' E. The District is bordered by Myanmar on the eastern and southern sides, the Lunglei district on the north and northwest, and the Lawngtlai district on the west. As a result, the position is important from a strategic standpoint because the two districts share an international border.

Chhimtuipui District, which had previously been the district capital, was divided into Siaha and Lawngtlai districts as a result of the administrative structure of Mizoram in 1998. Siaha continued to serve as the district capital of Siaha district even after the district was split into two in 1998, namely Lawngtlai district and Siaha district. Siaha Town, the district's sole urban centre, had a total population of 25110 in 2011, while Siaha District as a whole had a population of 56574.. While there are 52 inhabited communities in the District, there are 31,464 people who live in the rural areas. According to the aforementioned statistic, 57% of the population resides in rural areas. The Siaha district had a total population of 45,567. (Statistical Abstract of Mizoram, 2019). The population density was 33 people per square kilometre, which was lower than the state average.

Due to their isolation, many of the villages in this district are well recognised for being economically disadvantaged, particularly those in the southern half that border Myanmar. With a population of fewer than 300, rural residents are dispersed along the

international border in a few houses that range in size from 20 to 50. These villages are connected by a seasonal route, which can become occasionally shut off from the District during the wet season. It is also true that the villagers must travel to the closest Sub-Centres for medical care, even for minor diseases. In many cases, they are unable to pay for this, and occasionally it leads to a really unpleasant and awful scenario.

The research region is hilly, with an altitude range of 900 to 1200 metres. The Tertiary rocks of the Bhuban subgroup make up the majority of the area. A mean sea level of 6470 feet is reached at the area's highest point. An uneven layer of soil primarily made up of alternating thinly bedded shale covers the rocks. Most of the villagers in this District are recognised for their centuries-old shifting agriculture traditions, which is how they make a living. Despite its flaws and low production returns, there hasn't been a workable replacement discovered yet. Without a doubt, efforts have been focused on improving thanks to the influx of money and technology. These initiatives have often been strengthened by the extensive introduction of horticulture.

Due to its geographic location, the study area has a monsoon climate. It also experiences dry season from November to April and wet season from May to October with average rainfall of 250 cm. The temperature of the study site ranges between 27°C in the summer and 17°C in the winter.

Every exception, as previously said, is found in the foothills or valleys, where the majority of rural villages are found along close to the crest of the hill, the upper slopes and ridges. As a result, it is crucial to describe a few of the area under study's key physical characteristics. Four physiographic units that correspond to the current study region are listed below:

*High Structural Hills, 239.3 sq km (17.10%)*

High Structural Hills include those that rise above 1200 meters. They are mainly confined to the Eastern and the North-Eastern parts, in addition to a few areal distributions in the central parts of the District in the form of small patches near Vahai and Latawh Villages. The High Structural Hill mainly covers hills of the Eastern parts such as Their-Theiva ridge, Niawhtlang ridge, Chhuarlungtlang ridge and Tuipang ridge. Besides these, Paithar Tlang in the Southeastern periphery of the District also falls within the high structural hill.

*Medium Structural Hills Area 379.80 sq km (27.13%)*

The hills classified as medium structural are those that are 800 to 1200 metres high. With a very small areal distribution, it is mostly found to encircle the high structural hill. The Saikhao Tlang, Chakhang Tlang, and Ainak Tlang in the Eastern section of the District are primarily covered by the Medium Structural Hill. The medium-sized structural hill also surrounds Siaha town and the nearby Maubawk, Siahatlang, Tuisumpui, and Phalhrang villages.

*Low Structural Hills 598.70 sq km (42.77%)*

Low Structural Hills are hills that are less than 800 metres in height. The Low Structural Hill includes practically the entire District, including Linear Ridge, Flood Plain, and valley Fill sections, and is primarily higher in terms of size than its counterparts.

*Intermont Valley 19.66 (1.40%)*

Unconsolidated sediments left behind by streams or rivers in a small fluvial valley are what distinguish the fluvial origin of Intermont Valley from other fluvial origins. Major streams including Palak Lui, Siaha Lui, Kawlawh Lui, Tuipang Lui, Tuisih Lui, and Tuisumpui Lui are where the valley fill is primarily found. In certain districts, it is also found between the hillocks.

### **Distribution of Population**

The spatial distribution and accessibility of healthcare facilities in the study area are examined in this study. The population distribution and concentration of a healthcare institution is a crucial factor in every area. The population distribution in the study area must therefore be examined. According to the Census of India from 2011, Siaha District had a total population of 56,574, with 28,594 men and 27,890 women. There were 44 people per square kilometre in the population. The District's capital and lone urban centre, Siaha town, has a population of 10,421, while there are 31,464 people living in the rural areas. The Tuipang R.D. Block and the Siaha R.D. Block are the two rural development blocks. 52 settlements were inhabited in the entire district, 33 of which are located in the Tuipang R.D. Block and the remaining 19 are located in the Siaha R.D. Block. According to the aforementioned statistic, rural areas are home to around 55% of the population. The size of the village inside the District and the population's spatial distribution are significantly uneven, according to a micro-level analysis. The following table depicts the gender distribution of the rural population, including both men and women:

Table: Distribution of Rural Population in Siaha District

SN	Name of Village	Household	Male	Female	Total
1	Tuisih	196	445	433	878
2	Theiri	131	311	315	626
3	Serkawr	258	500	477	977
4	New serkawr	37	67	77	144
5	New Latawh	123	312	291	603
6	Tuipang L	140	322	330	652
7	Tuipang V	306	849	806	1655
8	Tuipang Diary	238	561	559	1120
9	Siatlai	74	161	174	335
10	Zawngling	302	803	827	1630
11	Chheihlu	101	280	250	530
12	Chakhang	285	651	682	1333
13	Siasi	74	172	172	344

SN	Name of Village	Household	Male	Female	Total
14	Mawhre	98	255	285	540
15	Chapui	205	501	544	1045
16	Khopai	137	296	355	631
17	Ahmypi	42	112	135	247
18	Kaisih	96	245	197	442
19	Maisa	52	130	114	244
20	Lohry	55	132	137	269
21	Lawngban	119	296	311	607
22	Lodaw	60	143	116	259
23	Phura	231	553	515	1068
24	Vahai	148	414	412	826
25	Tongkalong	107	243	235	478
26	Miepu	95	221	202	423
27	Laki	182	508	504	1012
28	Supha	15	28	30	58
29	Lomasu	82	170	159	329
30	Bymari	113	245	210	455
31	Lope	15	29	29	58
32	Lungpuk	223	551	523	1074
33	Khaikhy	36	73	78	151
34	Phalhrang	73	188	189	377
35	Romibawk	103	229	221	450
36	Riasikah	36	72	61	133
37	Tuipuferry	58	125	111	236
38	Zeropoint	155	399	360	759
39	Maubawk L	122	285	314	599
40	Maubawk Ch	56	135	117	252
41	Kawlchaw E	239	548	523	1071
42	Lower Theiva	135	290	261	551
43	Lungbun	167	396	403	799
44	Ainak	132	285	274	559
45	Siata	179	438	429	867
46	Tuisumpui	34	98	102	200
47	Old Tuisumpui	69	193	202	395
48	Thingsen	57	174	154	328
49	Niawhtlang-I	151	368	404	772
50	Niawhtlang-II	169	466	443	909
51	Chhualung-I	174	430	421	851
52	Chhualung-II	56	155	158	313
	Total	6541	15853	15631	31464

*Source: Census of India (District Census Handbook) 2018*

With an average population of 605, there are 9 villages in Siaha District where the total population exceeds 1000, the largest concentration of population is found at Tuipang 'V' village, having a total population of 1655, followed by Zawngling (1630), Chakhang (1333) Tuipang Diary (1120) respectively. On the other hand, 5 villages with a total population below 200 and 2 villages, namely Supha and Lope, recorded the lowest population with 58 only. Apart from this, 23 villages have a total population above the average, and the remaining 29 villages fall below the average. It is clear that the absolute number of people living in the village differs significantly from that of the entire District. The location, agricultural activity, migration, accessibility, means of subsistence, and other variables may all have a role in the District's uneven population distribution.

According to the 2011 Indian census, there were 56,574 people in total, with 28,594 men and 27,890 women. There were 44 people per square kilometre in the population. The District's capital and lone urban centre, Siaha town, has a population of 10,421, while there are 31,464 people living in the rural areas. The two rural development blocks are Siaha R.D. Block and Tuipang R.D. Block. In the entire district, 52 communities were inhabited, with 33 of them located in the Tuipang R.D. Block and the remaining 19 in the Siaha R.D. Block.

### **Socio-Economic Background**

The majority of agricultural operations are conducted out through shifting cultivation, which is an intriguing characteristic about this region. It is characterised by the predominance of subsistence crops. During the monsoon season, crops are primarily produced on mild to severe slopes without terracing fields. Domestically, fruits and vegetables are also cultivated and eaten. Most of these crops have very little commercial value. The lowlands, where permanent agriculture is done, contain a tiny share of agricultural fields. Wet rice is cultivated mostly.

The socio-economic structure and the ecology are both greatly impacted by shifting farming. It has detrimental effects on the environment because it is the major source of income for poor rural residents. It is primarily the result of forest removal and burning. Mizoram has a wide variety of wildlife. It is one of India's richest biodiversity hotspots. Tropical evergreens can be found in the lower elevations while semi-evergreens can be found on the upper slopes of the natural vegetation. Around general, marginal farmers clear woods for farming in January and February. In March and April, the slash is burned after drying on the hillside slopes. Operations for sowing are conducted prior to the start of pre-monsoon rain. 2150 mm of rain falls annually on average. The southwest monsoon causes it to happen primarily between June and September. Winter (October through January) is a chilly, dry season with few days of rain. With the exception of sporadic thundershowers and pre-monsoon precipitation in April and May, summer (March to May) is mainly hot and dry. In April and May, the temperature rises to 32 degrees Celsius, and following the arrival of monsoon rain, the temperature gently falls. The typical wintertime temperature stays at 9 °C. Throughout the four winter months, the sky is clear and the days are sunny.



About 85% of the farmed land in the study area is used for shifting agriculture (Singh and Singh, 1992). According to Singh and Ramakrishnan (1982), a small percentage of primary urban workers and 82 percent of the main rural workers are engaged in shifting cultivation. The principal means of subsistence for the rural poor in this region is shifting farming. Shifting agriculture is a common practise in Mizoram, where it is the peoples' primary profession and a significant economic driver, according to Maithani (2005a). Increasing food production through settled agriculture and implementing the New Land Use Policy were also included in the efforts (NLUP).

### **Types of Planning**

Depending on the goal, planning can take many different forms. First, one can distinguish between short-term and long-term planning from a temporal perspective. Planning can be used for development or the economy. It can be viewed as either imperative or indicative from the perspective of the organisation. Normative or systemic planning processes are both possible. Normative planning places less emphasis on the social and institutional aspects of planning and encourages planners to seek the best outcomes within the bounds of the predetermined goals. The social-technical perspective is used to examine planning in the systems approach.

Planning can also be geographical or sectoral. These days, sectoral planning is the type of planning that is most frequently used. It is essentially special purpose planning intended to develop different economic sectors, like agriculture or industry, either separately or all at once. On the other hand, spatial planning seeks to create a spatial framework. Planning itself comes in two flavours: adaptive planning and developmental planning. Recognizing the effects of broad development trends in spatial systems is the foundation of adaptive spatial planning. The latter's development is seen as a reaction to the demands and pressures of a country's economic development.

On the other hand, active or developmental spatial planning has higher standards for itself. It aims to find and accomplish the spatial structure evolution pattern that is thought to be most successful at any particular period for fostering sustained rapid economic development. This is founded on the understanding of the interactions and feedback relationships between geographical change and economic development.

Depending on the territorial levels at which planning is conducted, the planning process is differentiated. The creation of plans takes place at the national level in many nations. On the other hand, multi-level planning refers to planning that takes place at various territorial levels. Indian planning has typically relied on a sectoral model and single-level economic planning. Sectoral plans have been created and put into action, each one fitting into the framework of the overall national aims and objectives. The regional or spatial and multi-level dimensions are being stressed more and more these days.



## **Planning Region**

A planning region is a location that experiences the results of economic decisions. Planning refers to taking decisions to implement them to attain economic development. Planning may be done using administrative or political regions like villages, blocks, or districts. Because statistical information utilised in planning is frequently gathered at the level of administrative divisions, planning regions correspond to administrative areas. Planning involves the entire nation, district and block.

A planning region should have a fairly uniform economic structure, as well as topographical and socioeconomic homogeneity, for proper implementation and accomplishment of plan objectives. Therefore, when defining the planning regions, a balance between homogeneity, modality, and administrative convenience must be struck. A planning area ought to be sizable enough to house a variety of resources that can support economic viability. It ought to be internally consistent. Its resource endowment should allow for the feasibility of a suitable product combination and exchange level. To control the flow, it should also have a few nodal points. Geographically speaking, it ought to be one continuous area.

The primary goals of economic planning in India have been to achieve a structural transformation of the economy to achieve a high and sustained rate of growth, a gradual improvement in the general populace's standard of living leading to the eradication of unemployment and poverty, and to lay the material groundwork for a socialist economy based on self-reliance.

Most people agree that the entire planning process for the Siahya District has been unsuccessful and has not resulted in any appreciable growth. It has not taken into account the potential of local resources or requirements. Furthermore, the District's conventional socioeconomic structure, occupational distribution, cropping pattern, industrial makeup, productivity trends, etc., do not appear to have undergone any significant changes.

## **Strategies of Planning**

The absence of a theoretical framework for economic planning has been the fundamental weakness of the planning process in the Siahya District. Lack of theoretical planning framework hindered having long-term projections on population growth, population control, growth of macroeconomic variables, input-output relationship, sectoral demand and growth etc. Planning in Siahya District lacks a proper strategy, neglects strategy variables, and lacks analysis and study of constraints impeding the District's meaningful economic growth. While attempting planning strategies in Siahya District, it is presumed that the analysis will unfold the dimensions for future projections.

## **Agriculture**

Agriculture is a predominant sector in the economy of Siahya District, and the growth in other sectors, to a large extent, depends upon the growth in the agricultural sector. Therefore, a significant measure of prosperity in the agricultural sector is essential for

creating the requisite growth conditions in the economy as a whole. Given the strategic importance of agriculture in the District's economy, top priority should be given to this sector in the plans of Siaha District until a satisfactory growth rate in agriculture production is achieved. Due to this, rice was sourced from outside; therefore, an increase in foodgrain production is necessary first to meet the internal and neighboring Districts' requirements. The programme boosting agricultural production should relate to food grains and commercial crops. The production of commercial crops and also some food crops have to be increased to provide adequate raw materials for agro-based industries.

Moreover, with suitable crop planning, in some of the lands, more than one crop may be grown in different seasons, e.g., rice and pulses, with the help of irrigation during the dry season, which will help the use of cropped land. The increase in production should be affected not by area extension alone but by increasing productivity by employing a new agricultural strategy. The jhumming should be abandoned as far as practicable. In this regard, it is suggested that farmers should be given financial assistance and technical guidance to take up terrace cultivation on lower slopes. Extension of irrigation facilities is also necessary to increase the area under HYV and improve crop varieties. Efforts should continue to promote cultivating cash crops and fruits.

Another important measure to be taken is boosting the afforestation programme. Due to the large-scale practice of shifting cultivation, virgin forests are destroyed and converted into barren land every year. Therefore, the government should take effective reforestation measures to regenerate the forest area naturally, artificially through the plantation, or both. A proper resource survey of the forest will help tap the resources efficiently and in a planned manner. The goal of raising agricultural productivity should also aim at creating employment opportunities on a large scale. The people's purchasing capacity needs to be increased, and this is possible only by providing gainful employment on a required scale. Therefore, suitable employment-intensive schemes in rural areas like minor irrigation, land reclamation, soil conservation, storage facilities etc., should be launched and enlarged.

### **Irrigation**

The Siaha District is directly impacted by the South West monsoon due to its position. As a result, the area gets a sufficient amount of rainfall. Short winters and long, rainy summers are characteristics of the humid tropical environment. 230 cm of rain fall occurs annually on average. The final week of May to the end of July sees a lot of rain in the area. Up until September, the rainfall gradually declines. Due to the region's little rainfall, the winters there are extremely cold and dry. However, the District's agricultural development is sensitive to the elements due to the irregular and erratic nature of rainfall, making the building of crucial irrigation facilities necessary. Adequate water supply through irrigation facilities is very important for applying required fertilizer and high-yielding varieties of seeds which depend upon the assured water supply for their effectiveness. Irrigation is also vital for better crop planning and rotation by introducing early maturing varieties. Moreover, double cropping and multiple cropping systems would be possible with the help of better irrigation facilities. Since the soil of the Siaha District is porous with less tentative capacity, crops and

plants suffer from a lack of moisture, even in the Kharif season. Therefore, it is almost impossible to practice crop cultivation in the Rabi season without irrigation.

Considering the importance of irrigation for the development of agriculture in the Siaha District, the government should give immediate thrust to:

- a) Setting up a separate organization for irrigation development,
- b) Higher priority needs to be given to surveys, investigation, planning, and design of new medium and minor irrigation facilities,
- c) Since the areas to benefit from small surface water schemes are invariably in the valleys, and foothills and likely to be out of command by gravity flow, installing mini hydro power plants wherever feasible will be desirable, providing power to lift water for irrigation to higher elevation.

### **Industries**

Despite the vast potentialities of industrial development in Siaha District, based on the rich and varied resources, there is no industrial development which is indicative of the persistence of some missing links or constraints in the process of industrial growth of the District. One missing link was entrepreneurship, which remained scarce throughout the plan period in Siaha District. The nature of the problem of entrepreneurship and finance varies according to the size of the industrial unit set up in the District. As a whole, the focus of industrial development should be on the upgradation of technology, better utilization of assets, promoting efficiency and removing the infrastructural constraints affecting the growth of industries. Siaha District has the advantage of setting up agro-based industries such as banana figs processing, pineapple fiber, baking products, manufacture of cattle food, fruits and vegetables processing and preservation, ginger and ginger product, cold storage plants for fruits, meat and vegetables, mushroom cultivation and processing of spices etc. Apart from these, top priority must be given to the development of Food and Allied industries, followed by Handloom & Handicrafts. Agro and Allied Food industries required top priority due to their known advantages over other industry sectors. The main focus of development should be to enhance, promote, and create methods for processing and preserving food, including meat, dairy products, fish, fruits, and vegetables, as well as food products derived from livestock, poultry and aquaculture. In addition to this, it will involve the sale, storage, import, and export of processed goods.

The expansion of small-scale industries is extremely important for the development of Siaha District for a number of reasons. In addition to increased production, the development of small-scale industries contributes to the District's march toward industrial growth. In order for a new class of entrepreneurs to emerge in Siaha District who are founded on skill and initiative, this trend needs to be further encouraged by all-encompassing initiatives. Besides, there are possibilities of collaboration between the Central, State or District authority, the country's big companies, and even foreign enterprises to promote industries in the Siaha District. Whenever private enterprise is not coming to start either big or small industries, the District government should come forward and play the role of entrepreneur. The educated unemployed could be the potential source of entrepreneurs in the District, provided effective

measures are taken for proper guidance and training, finance and other forms of assistance. In this respect, the government and commercial banks in the District have a significant role to play.

### **Power**

Power is one of the most critical inputs for developing people and areas. It has two important functions: providing modern amenities to the people, which includes domestic, hospitals, schools, rural electrification etc., and use of power for productive purposes, including power for small and cottage industries, irrigation, transport and communication and construction sectors. Thus power consumption provides a measure of socioeconomic and industrial development in a region or District. Considering the importance of power for the development of a region, the pace of power development needs an accelerated thrust to provide the required infrastructure to remove the backlog of the economic backwardness of the District. Hydroelectricity potential in the District has remained largely untapped, and such projects are important due to the difficult terrain for reaching electricity to the interior and remote corners of the District. Organizations and corporations in this respect should be encouraged to undertake research in the field. And it is the responsibility of the District to identify and undertake the preparation and implementation of those projects.

For a generation of hydroelectricity, planning has to be done well in advance because it takes a few years to conduct investigation works to determine the feasibility of a project and will take another few years to construct a major hydro project. Careful planning is required keeping in view the fact that the development of power is a continuous process. The economic feasibility of large hydro projects and their corresponding match with a thermal project for balancing it would need to be studied along with the technical feasibility of impounding large quantities of water within the limitation of rocks and soil characteristics of the region and its seismicity.

Priority should also be given to rural electrification. The rural electrification program should primarily address itself as an avenue of lift irrigation as enough surface water resources are available in the region for raising multiple crops besides setting up small industries with locally available raw materials. Apart from this, power should be treated as an industry in the region, as the bulk of transmission outside the District can become substantial revenue for the District. So further planning for the power sector will have to keep this possibility given the mountainous terrain of the District with a large number of rivers and streams, which are ideally suited for taking several hydro projects.

### **Transport and Communication**

Railways, roads and shipping are important surface and water transport modes. The importance of roads in the Siahya District is greater than in the rest of the country. In the absence of railways and other means of transport, the region has to depend chiefly on the road network for the movement of goods and passengers within and outside the region. Till today, railway and water transport do not play a significant role in the economic life of the people of Siahya District. A dependable and low-cost road transport system is very important

for the economy of Siaha District as she imports practically all the requirements of consumer goods, machinery and equipment etc. Roads provide an important link between the rural and towns within the District and the rest of the country.

The State Government may prepare a comprehensive master plan for the whole of Siaha District, within which new schemes could be considered and sanctioned depending on priority and resources. Due to the region's difficult terrain, construction, improvement and maintenance of the roads are quite difficult. Considering the present setup of PWD, it is desirable to expand and strengthen this department. Moreover, the District PWD in the region is suffering from a lack of road-making equipment, timely supply of such machinery may be ensured. A good all-weather road connecting all villages is urgently needed to improve the quality of life and develop the economic conditions in rural areas. The availability of these types of roads should be regarded as the prerequisite for economic development.

Apart from roads, railways and airways, there is a scope for the development of waterways. With proper planning, the Koladyne River, which passes through the southern part of the Siaha District, can be made navigable. The State Government should properly study and investigate the District's major rivers to see the possibility of inland water transport connecting the rest of the country, including Myanmar.

Considering the inadequate air service in the District, the government may also consider the introduction of helicopter services for the transportation of medical supply and also for passenger service, which would connect administrative headquarter and districts in remote and inaccessible areas. Another means of transport developed in the Siaha District is ropeways for carrying goods and passengers to remote and inaccessible areas considering the region's need for mobility, particularly in the rainy season, when landslides blocked several roads.

## **Conclusion**

From the above discussion, it is observed that meaningful planning is essential for developing any country, region, and area, and Siaha District is no exception from this perspective. The current economic and social conditions necessitate development in a planned manner. Poor planning leads not only to regional differences in activity levels but also to other problems. Inadequate infrastructure and civic amenities in the rapidly growing population provide a clear example of the issues one may face due to uncontrolled and unplanned growth as planning is done for various purposes ranging from economic, education, social, and so on—however, most planning concerns about the socioeconomic development of a country, society or region. The Government must undertake proper and well-designed planning to solve the problems faced today, which will overcome the issues that may be encountered in the future. To achieve a well-desired development, Planning will bring a sustainable and meaningful result to human society so that it can regulate itself to the changing socio-political and economic environment and utilize this environment to maximize the welfare of its members. Finally, careful planning is imperative to chalk out to develop any area in a positive direction. Many other problems, especially agriculture, irrigation,

deforestation, power supply, transport, and communication lines, will arise at this stage. These must be done to match the potential resources with the current needs of the people. It is also essential to minimize socioeconomic imbalances, improve the living conditions of the masses, and facilitate the optimum utilization of natural and human resources.

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