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ENDOGENOUS AND EXOGENOUS URBANISATION : A CASE STUDY OF UTTARKHAND (U. P. HIMALAYA)

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ABSTRACT : Uttarkhand, a chronically backward region, characterised by high mountain topography and an erstwhile feudal spatial organization was economically of little use to the colonial spatial organization but its uuique urbanization reflects both endogenous and exogenous factors. The paper analyses the infiuence of physical constraints on the distribution of towns and the diffusion of urbanization originating in the North Indian Plains; and the comparative response of the colonial and indigenous town to the exogenous and endogenous forces.

The transverse valleys, functioning as conveyors of impulses of urbanization, have developed a linear pattern of interlinked towns. The hill top and ridge crest towns and hill foot towns form different ineracting pairs.

The maximum concentration of towns occurs in the middle elevation zone where the ridge crest sites of the British towns have been infiuenced by healthy climate. The indigenous towns, occurring in all the elevation zones, developed as religious and trade centers and halting places on ancient caraven routes, and capi als of native states, while the British towns were mainly cantonments, health resorts and administrative centres. Physical constraints are reflected in the time lag in urbanization between the plains and the region. The exogenous factor has operated through British towns, effects of transport linkages, and the administrative functions of the existing towns. The towns which experienced the combined effect of indige nous and exogenous forces grew faster than those affected by one alone. The small towns of the region contributed substantially to its urbanization The new towns have emerged in an inverted chronological sequence in which the hillfoot towns are younger than those of the interior. Urbanization has been sustained by the administrative functions and not by industrialization.

Urbanisation is essentially a socio-economic phenomenon. It has a feed-back relationship with the socio-economic changes. Spatially it expresses itself mainly through the movement of people from rural to urban areas.

Needless to say, the spatial variations in the socio-economic conditions would generate different characteristics and patterns of urbanisation in different areas. In the context of the new trends in the regional patterns of socio-economic development the role played by the process of urbanisation acquires additional significance. Urban centres in general, and in economically backward regions in particular, function as centres of diffusion for the new trends and attributes of civilisation. The urban place as a node and also the set of interacting urban places produced by the processes of urbanisation reflect the regional character.

Through the process of urbanisation a segment of population becomes urban in its socio-oconomic character. As a process,

urbanisation partakes of a historical nature and its study should include the inherent temporal dimension. The proportion of total population living in urban areas during a particular decade, is not only the result of factors operating during that decade but is also the cumulative result of the factors at work during previous decades. Any study of urbanisation, therefore, must integrate its spatial as well as temporal aspects.

In the context of the impact of the colonial mode of production and, the enclave development generated by it in India, it is easy to understand the distinct variations in the operation of the processes of urbanisation and the reasulting spatial patterns. It would be of great interest to compare these with the previously existing patterns and processes. For this purpose the Study Area of Uttarkhand, comprising the eight hill districts of the state of Uttar Pradesh has been selected (1),

Regional Personality

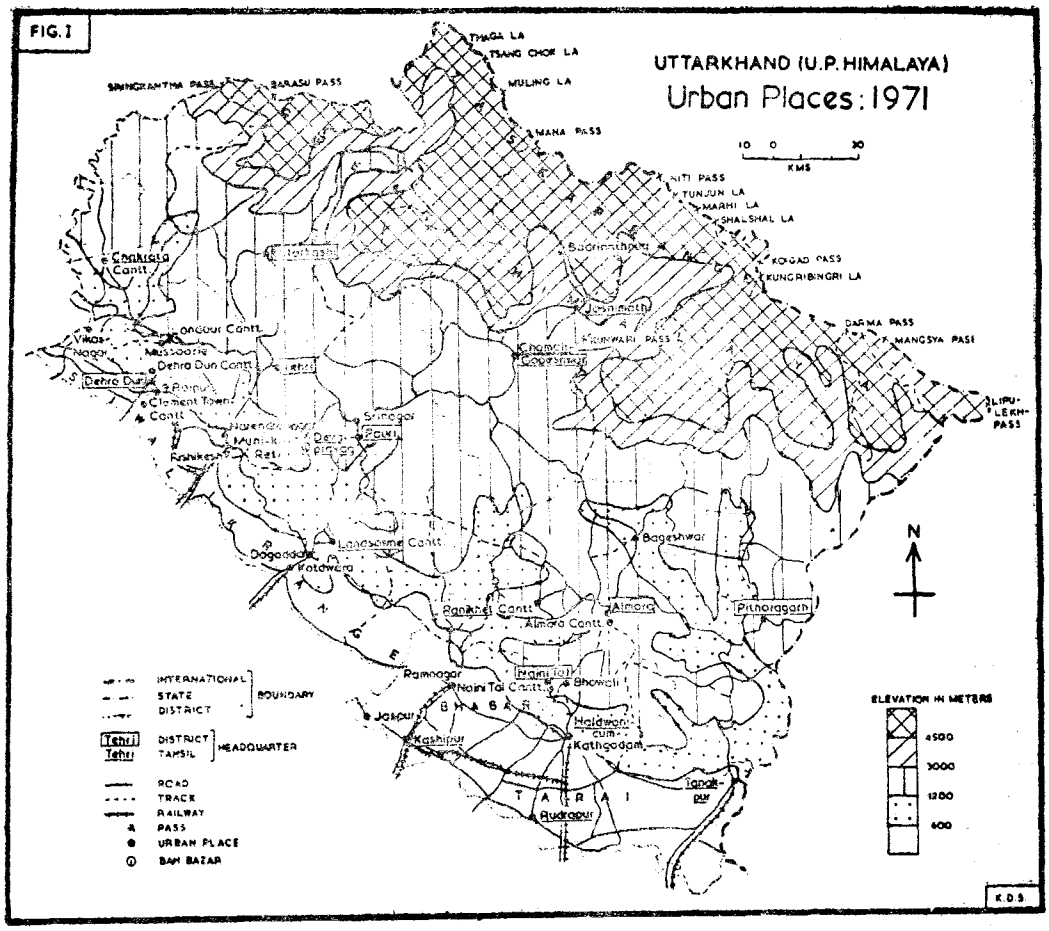
The Region is characterised by rugged topography, predominance of mountain ranges with snow clad peaks, and a network of consequent, subsequent and obsequent valleys containing narrow flat lands. It contains many strategic mountain passes (Fig. I) facilitating transportation arteries to run in an otherwise impenetrable area. The transport arteries follow the river valleys that pierce the mountain chains (2). The river valleys, river terraces, flat stretches on the ridge crests, and points of confluence of rivers have played a significant role in the urbanisation of the region by providing suitable sites (3) for settlements both rural and urban, and for agricultural activities.

The altitudinal zones in the region roughly correspond with the Outer, Lower, Greater and Trans Himalayan regions. The Trans- Himalaya is a town-poor area suffering from cold winters, short summers and inaccessibility. The Siwalik Hills also display a paucity of towns. These hills suffer from severe soil erosion resulting in scanty agricultural land, and the low altitudinal location deprives them of any climatic advantage. In contrast, the Dun Valleys, having the advantages of a hill-foot location, comfortable climate and fertile alluvial soils to support a relatively prosperous agriculture, contain quite a few towns.

The altitudinal variations and the aspect of slope result in different climates in various parts of the Region. The climate is hot and moist-tropical in the valleys located at less than 600 metres of elevation. With an increase in altitude up to 2000 metres, the climate is cool temperate, and between 2000 and 3000 metres it is cold temperate. At still higher altitudes, it changes from Arctic to Polar. Rainfall in the Region decreases both from east to west and from south to north.

The altitudinal and climatic belt best suited for the development and growth of towns is located between 600 to 3000 metres (Fig. I). The hill resorts, sanatoria and old cantonments are located mainly between 2000 to 3000 metres in the Outer Himalaya. A number of trading and transport centres are located at 600 to 2000 metres of elevation. In the former zone the pleasant climate in summer within short distances from the plains is the main advantage while in the latter the major incentive is its location between the plains and hills, the two economically contrasting regions.

The major means of communication in the region has always been road transport. In Ancient times due to the absence of good roads, the journeys used to take a long time and the distance was covered in easy daily marches. Consequently the interaction between mountains and plains was almost exclusively restricted to pilgrims and traders. In modern times, before Independence, the Himalayas were considered an impregnable line of defence and roads were few and far between. These were extremely old and formed parts of the Ancient Indo-Central Asian trade routes. Many of the existing towns initially originated as small settlements located at these routes and reflect in their growth the functioning of this particular



kind of trade. In the 19th century when the British developed cantonments, hill resorts and sanatoria, roads were built to link only the isolated pockets containing these centres and the surrounding area was left untouched mainly to preserve the natural environment. The indigenous elite believed more in modifying their residential environments in summer rather than shift to the hills like the British. The Region itself was divided into *thakuriats* and principalities which functioned as a closed system. The interaction between these was either through wars or matrimonial alliances. Thus, a large part of the region remained isolated and inaccessible.

In the post-Independence era due to the merger of principalities in India, change in the attitude of the plain dwellers, and strained relationship with China, priority was given to the construction of new roads and improvement of the existing ones. The development of road transport has been miraculous since 1962 and has been directly or indirectly responsible for the rapid growth of unbanisation and extension of the urbanised area in the Region. The influx of population, pilgrims and tourists has multiplied enormously. The same is true of the trade interaction between the plains and mountains.

The influence of the railways is limited to

the southern periphery of the region where these have penetrated only in small sections (Fig. I). All the railheads in this region have developed into break-of-bulk towns and are connected with important administrative, transportation and commercial centres on the main railway lines and located in the plains.

Economically the Region has variety of resources such as water power, forests and horticulture. In limited pockets development of horticulture has added to the commerce of small market towns. As a result of improved road conditions the fruit is packed and exported directly from large farms. This will definitely lead to the expansion of fruit canning industry and is expected to promote growth of settlements located on the main roads or rail routes providing future nuclei for urban growth.

The region has always been considered one of the holiest parts of India. Historically (4), it was a part of Maurya and Gupta Empires. In the 17th century A. D. a large number of principalities were established by the Rajputas who had penetrated into the valleys of the Himalayas. The downfall of the Katuris resulted in the apportioning of Kumaum into several scattered principalities, The unstable political conditions in the Region first attracted a Rohilla invasion in 1743-44,and Gurkha incursions in later years. The territorial ambitions of the latter brought them into direct conflict with the British to whom they lost the territories of Kumaun and Garhwal in 1815. The British made Almora the administrative centre of Kumaun and Garhwal and returned the residual parts to the state of Tehri after retaining the most populous tracts. The comparatively better means of communication, and the physiographic advantages like suitable climatic environment helped in the faster urbanisation of the British held territories. Other regions suffered due to the lack of these advantages. The British established hill resorts, sanatoria and cantonments at sites suitable for their cultural, administrative and political requirements (5). The other parts of the Region have grown more rapidly in the post - Independence period. The latest political boundaries were demarcated after the reorganisation of the districts in the Hill Region of Uttar Pradesh in 1960 The strategic exegencies have manifested themselves in the remarkable development of the road transport in the post-Independence period. However, for a considerable period the region suffered from the handicaps of physical and historical isolation. Relative to the North Indian Plain the urbanisation in the region is much younger.

Hypotheses

1. In a mountainous region the major as well as secondary transportation arteries are aligned with the valleys and promote the spread of urban plans and urban growth in the valleys creating a linear pattern of development.

2. The plains and the adjacent mountains are two sharply differentiated socio-economic regions. The impulses of socio-economic development originate in plains and are slowly and steadily diffused through the mountainous region. The settlements located along the line of contact between mountains and plains grow into urban centres sooner than the settlements located in the interior. Also these would function as centres of exchange, collection and redistribution of the products of the two contrasted economic regions, and also of diffusion of socio-economic development.

3. The preceding hypotheses are based on the explicit assumption that the impulses of urbanisation originate in the plains and are diffused into the mountainous regions through the contact point settlements and the related transverse valley routes The towns in the valleys would, therefore, be younger to the contact point urban settlements. This is termed as the exogenous urbanisation. In the Study Region a large number of small capitals of principalities feudatory and other kinds of estates located at some distance away from the

valley routes were already in existence. These capitals attracted merchants and the artisan classes due to the patronage provided by the native rulers. The resulting urbanisation has been autochthonous in its spatial relations and indigenous in origin and processes.

4. within the framework of colonial economy and in the conditions of continuing semi-colonial spatial economic structure for quite some time after Independence, two distinct models of urbanisation have operated in India. In the first there are a few small towns located in the shadow zone of a big city, coextensive with the restricted enclave of development. In the second model the urban pattern comprises a large number of small towns surviving on a weak and generally nonfunctional urbanisation. The first results from external and the second from internally operating processes. Ii is proposed that the urbanisation of the Region has its roots both in the internally operating processes and the externally induced impulses. Its nature is both indige nous and colonial.

Objectives

The objective in this paper is to examine the impact of the impulses of socio-economic development in the creation of new towns and in promoting the growth of indigenous urban places. The study aims at a comparison of the influence of various rsgional constraints and the diffusion of impulses of urbanisation in the shaping of the distribution pattern of towns in the Study Regoin, and how far the processes and the pattern conform to the general spatial and temporal pattern identified in other parts of the country.

Generalities

During 1901-71 the urban population of the Study Area grew by 490.0 per cent-as compared to the state average of 129.8 per cent. This clearly shows that inspite of physical and historical isolation, social and economic backwardness, and the time lags in the operation of the processes of urbanisation between Uttarkhand and the adjacent plains, the towns of the region were always quick to respond to the impulses of socio-economic development, internal or external in origin.

An analysis of the growth of urban population in the Region during 1881-1971 empirically supports the assumption that small towns have significantly contributed, and continue to do so, to the urbanisation of relatively backward socio-economic region (6). In Uttarkhand the proportion of population living in class III, IV, V, and VI towns was rarely less than the comparable values for the state (TableI). Interestingly, the Region did not have any class I city till 1951 when Dehra Dun became the largest urban place with a population of 1,16,404 persons. It had been a class II town first in 1921 (50,858 persons) and then in 1941(59,535 persons). At the same time there was no class II town either in 1951 or 1961 (Table I). Thus, for the Study Region the model of urbanisation expressed through one large ctty surrounded by few towns experiencing small growth is applicable for post-Independence decades only (7).

In contrast, the model in wich urbanisation is essentially reflected through a large number of randomly distributed small towns is more valid for the earlier decades. However, it still continues to function although to a lesser degree. The significant contribution made by the small towns in the growth of urban population in the Study Region is related to their small initial base. In this economically backward region the hinterlands are small and poor and can support only small towns. Hence, urban development is manifested mainly through these small urban places which are much smaller than those of the adjacent plains.

A notable feature in the growth of urban population of the Region is that the urbanisation during 1921-31 was far slower than the trends which characterised the Great Demographic Divide for the rest of the country (8). In contrast the region experienced a remarkable increase (44.9 per cent.) in its population during

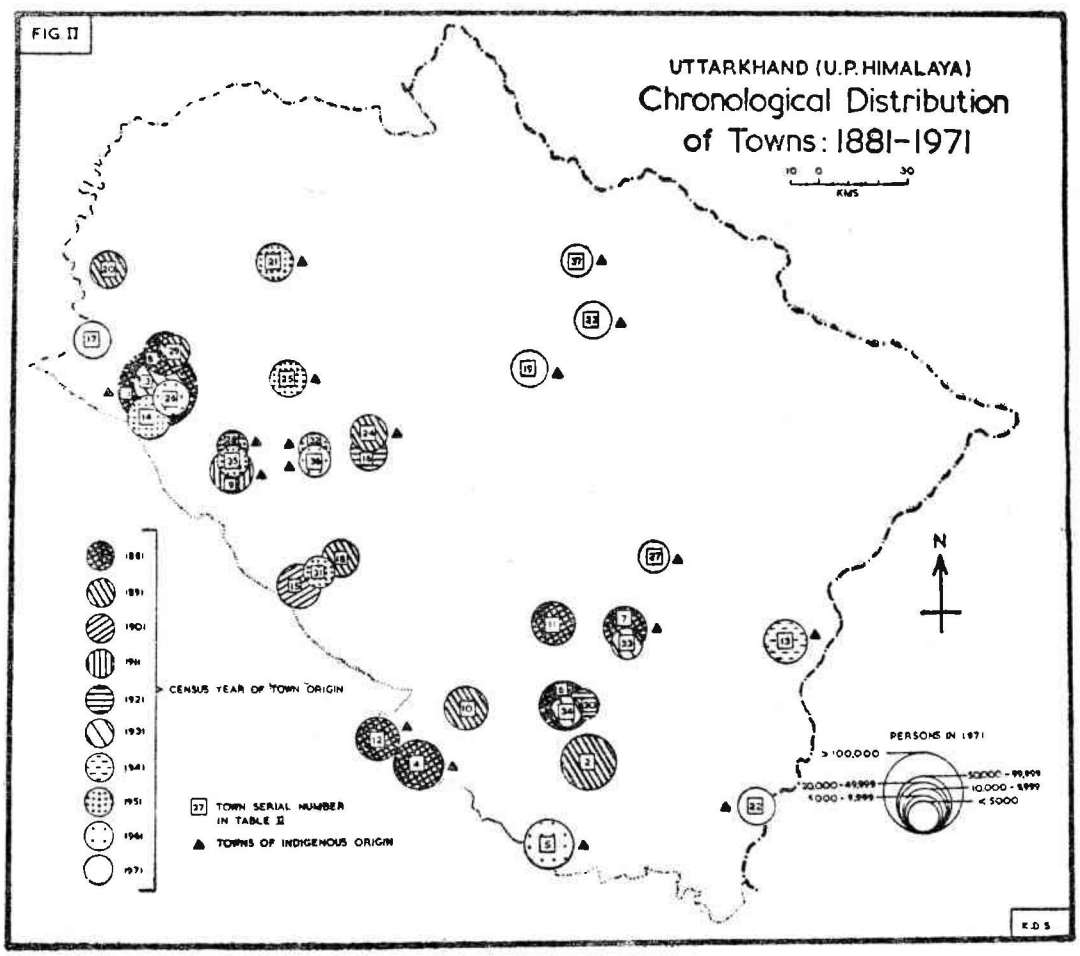
1931-41 This is related to the limited accessibility to the main currents of the national, social, and economic dvelopments resulting in a time lag for the urbanisation processes operating in the plains to generate a response within the region. There is also a coneomitant delay in the response of the interiar high altitude, backward areas and their weakly connected hinterlands. This is the second type of time lag in the diffusion of urbaisation. The two time lags aggregate to some years and hence, the urbanisation of the region while following the national pattern has kept lagging behind.

The towns of the 1881 census extended

Decadal Urban Pattern and Growth : 1881-1971

along the trunk and tributary roads. The main transport arteries and the associated clusters, around Dehra Dun and Nainital, extended in a north-south direction separated from each other by wide areas devoid of any town. This pattern corresponded with the terrain and reflected its constraints- There were no towns in the Greater Himalaya and the Trans-Himalaya regions. This was due to limited accessibility, forbidding terrain, insulation from the externally originating influences of social and economic development, a sparse population coupled with primitive subsistence economy.

At least four towns in 1881, Dehra Dun,



Almora, Jaspur and Kashipur had indigenous origins (9). The first two, along with Ranikhet, Nainital and Mussoorie, experienced the British colonial imprint through the superimposition of military as well as administrative functions. Even though the two realms do not interact functionally, together they strengthen the tertiary activities which promote the process of urbanisation. In some cases the development of the two functions was parallel, in others there was convergence and intermixing. Jaspur and Kashipur located at the hill-plain contact zone functioned as supply centres (10).

The Decade (1881-90)

In the 1891 census six new towns were recognised raising the total number to thirteen. Of these, three; Srinagar, Ramnagar and Haldwani-cum-Kathgodam had indigenous origins (11); the rest, Landsowne, Chakrata and Landour were cantonments created by the British (12).

The emergence of Kathgodam, which was not a town in 1881 points out the potential for fast growth in the supply towns. Kathgodam functioned as a supply centre for Ninital which grew by 28.5 per cent. Its emergence as a new town brings out another feature of the urban development in the Study Region, namely the impact of the inputs provided by the main centre to its supply town. Another interacting pair of towns is formed by Dehra Dun and Mussoorie, the former acting as a halting. place for the onward journey to the latter and also as its supply centre. During 1881-91 Mussoorie recorded a growth of 65.5 per cent (13) and Dehra Dun grew by 49 9 per cent.

Most of the growth during this decade was associated with natural increase. There was little industrialisation and development activities in the Region and only a trickle of inmigration. In the cantonments and hill stations the movement of people was periodic. There was no consistent pattern in the decadal percentage change in the population of towns according to their size, location for function. While the growth in Nainital a British patronised hill resort and a cantonment, was considerable, Ranikhet, another, British cantonment registered a decline Similarly, while Kathgodam, a supply centre located in rhe **tarai** emerged as a new town, Kashipur and Jaspur, with similar location and function registered decline (Fig. I). This suggests not only the absence of a uniform operation of the same factors over the entire area but also the differences in factors themselves from one town to the other.

The only generalisation possible is that the British patronised towns grew more in response to the impulses of urbanisation directed at them while other towns, mostly indigenous in origin, declined partly due to lack of attention in the creation of infrastructural facilities by the British, and partly due to the occurrence of epidemics of plague and smallpox.

The Decade (1891-1901)

Ouly one new town, Kotdwara, emerged during this decade. A hill-foot settlement, Kotdwara was an insignficant market before 1870. The external factors which provided the necessary impetus for its growth and later emergence as a town were (i) the establishment of a cantonment at Landsowne in 1887; and (ii) extension of the railway line from Najibabad in 1897.

These factors made Kotdwara a break-of-bulk town with a rail-head position and also helped in its emergence as a trade centre for the products of hills and the plains (14). The town also started functioning as a supply centre for Landsowne cantonment.

This decade was characterised by slow growth, stagnation and even decline in the population of towns. The non-consistency in the pattern of growth existing in the previous years continued in this decade also. Lansdowne cantnoment more than doubled its population (increase of 191.2 per cent), and Ranikhet cantonment recorded an increase (39. 1 per cent). In contrast Chakrata and Landour cantonments

registered a decline (- 17.1 and -15.3 per cent respectively). Dehra Dun, itself an administrative centre and a supply station for Mussoorie increased its population by only 8.2 per cent while Mussoorie registered a decline (- 7.7 per cent). The same pattern is identifiable in the other pair of interacting towns, Nainital and Kathgodam. The latter registered an increase of 51.5 per cent, the population of the former decreased by 18.3 per cent. Similarly, Kashipur a trading centre with a hill plain contact location registered a modest increase in its population (18.3 per cent.) while Jaspur and Ramnagar with similar location and functions declined by 4.8 and 24.4 per cent respectively.

The persistence of the non-consistent pattern of growth suggests that the socio-economic impulses of urbanisation generated in plains lacked strength and consistency. Consequently, these could not operate permanently from some selected towns and shifted from one to another. Some towns experiencing their periodic impact grew in population, while others declined. An additional factor restricting the growth of urban population in the lower elevation zones was the exceptionally dry years in the earlier part of the decade and later the out-break of plague (15).

The Decade (1901-11)

Only one new town, Rishikesh, was added to the previously existing towns. The Trans-Himalayan region continued to be devoid of any urban place even though there were many large settlements functioning as trade centres, capitals of native states and halting stations on the Indo-Tibetan trade routes. A majority of the urban places were concentrated in a narrow rectangular belt along the southern periphery of the Region (Fig. II). This was due to good accessibility and the sustained connection with the neighbouring plains in the form of trade, commerce, tourists and pilgrims.

Rishikhesh, the new town, had indigenous origins and was the gateway into the Garhwal region functioning as the break-of-bulk town and the starting point for the Hindu pilgrimage centres of Kedarnath, Joshimath, Devaprayag, Badrinath and Hemkund. Many of these were to emerge as towns in later years. Rishikhesh itself was a Hindu pilgrimage centre in its own right (16).

During this decade all the cantonments except Landour registered an increase. The decline in the population of Landour seems to be the result of a change in the enumeration area. Ramnagar and Kotdwara also experienced a decrease in their population (- 2.7 and - 20.2 per cent respectively). The slow growth in these towns was due to the chance occurrence of plague in the **bhabar** and **tarai** areas when the census was being conducted (17). The epidemic had scattered the town folks.

The trend of growth of urban population in this decade presents a contrast to the previous pattern. However, the emergence of the only new town was not due to the British colonial imprint.

The Decade (1911-1921)

Among other factors the out-break of the First World War during this decade resulted in considerable outmigration from this as also from many other regions. At the same time even the normal inve stment in the eco nomic development of the Region had to be withdrawn. This led to a slow growth or even decline in the population of the towns.

Two new towns, Pauri and Bhowali, were added in 1921. The former was made the district headquarter of Garhwal district in 1840. Previously, it was only a village located on the northern slope of Kandutia hill (18). Bhowali was located eleven kilometres. from Nainital on the road leading to Almora. It was an export centre for the hill fruits (19).

The vast tracts of Trans-Himalaya and Central Himalaya remained devoid of any town.

During this decade the main hill stations

as well as their entry towns experienced higher growth. Dehra Dun and Mussoorie which had formed an interacting pair grew by 19.4 and 26.6 per cent respectively. Similarly, Nainital registered an increase of 9.3 per cent while Kathgodam, its supply centre recorded a growth of 12.2 per cent (20). Among other towns only Ramnagar, the largest lowland market of western Kumaun patronised by **Bhotias,** and Jaspur registered an increase. The growth in the former was 28.6 per cent, in the latter it was marginal (1.1 per cent).

In contrast, all the contonments, Ranikhet Lansdowne, Landour, and Chakrata declined The decrease in their population was due to massive outmigration of the military personnel. Among the declining towns Kotdwara which was the supply centre for Lansdowne registered the maximum decrease of 51.7 per cent. All other towns including capitals of native states and small markets registered a decline.

The Decade (1921–1931)

This was a period of economic recocvery and regeneration as the impacts of the First World war were gradually dying out. Also the decade marks the Great Demographic Divide for the rest of the country (21), However, in Uttarkhand the effects of both, the economic recovery as well as an improvement in the public health facilities were negligible The urban population of the Region remained stagnant (increase of 0.1 per cent. from 130,114 to 139, 299 persons).

All the new towns during this decade, were the cantonments of Dehra Dun, Nainital, and Almora, whose population was included in the adjacent towns in the previous years. Their establishment as separate entities contributed to the decline in the population of the main towns (22). Interestingly, the other cantonments of the region, except Almora and Ranikhet also registered a decline in their population (Table II). This was related to the introduction of the Lee Commission Free Passage scheme which permitted a large number of European army officers and officials to take leave and send their families home in Summers. This seems to have considerably affected the growth of Mussoorie also, the most popular hill resort which declined by 40.1 per cent. In addition, Kotdwara which had been experiencing a decrease in its population since its emergence as a town in 1901 was declassified. Jaspur, a trading town which had become almost stagnant during the previous decade declined further by 9.7 per cent. due to a continuous fall in its cloth trade and the consequent outmigration of workers engaged in this activity. Bhowali, an export centre for hill fruits also registered a decline in its population.

The towns experiencing an increase in their population were almost exclusively either market towns, such as Ramnagar (+ 11.8 per cent.) or supply stsation and halting places such as Kothgodam (+32.2 per cent.) and Kashipur (+ 6.6 per cent.) or pilgrimage centres such as Rishikhesh (+ 15.6 per cent.).

Although the decade revealed an overall stagnant growth in the urban population of the Region there was an expansion of the urbanised area as revealed through the creation of new cantonments. Also, the impulses of urbanisation generated in the plains found a better footing in the trading towns and supply centres and helped in their growth.

The Decade (1931–1941)

This was the decade immediately preceding the partition of the country and the attainment of Independence. Also the military activities were accelerated as a precautionary measure for the impending threats to security. In addition, effects of the improved general public health facilities and other economic developments, especially road construction favourably influenced the Region. In contrast to the general upward trend in the growth of urban population in the rest of the country during the previous decade, which marked the Great Demo-

graaphic Divide, the urban population of the region increased by 44.9 per cent in this decade. This time lag is apparently related to the difficult terrain and backward economy of the region, impeding the diffusion of the impulses of urbanisation generated in the plains.

Only one town, Pithoragarh, emerged in the census of 1941 while Kotdwara remained declassified. Pithoragarh which had indigenous origins was located on the main trade route to Tibet frequently used by *Dharma Bhotias* who used to come here to exchange their products. It was also the site of an abandoned cantonment (23). Its recognition as a town resulted in an eastward extension of the urbanised section of the Region. Previously, the line joining Almora to Kathgodam had formed the externmost limit (Fig. II).

The town recording exceptionally high growth rate, Dehra Dun cantonment (116.4), Jaspur (202-3) and Pauri (2122.) did not have any locational (Fig. I) or functional affinity. The increase in the population of Kathgodam (59.2 per cent) was a continuation of the trend since its emergence as a town in 1891. The popular hill resort of Mussoorie and its supply centre Dehra Dun, the Hindu pilgrimage centre and a halting place, Rishikhesh, and the market towns and Supply centres such as kashipur, Ramagar and Bhowali also recorded an increase in their population However, Nainital and the adjacent cantonment for which it acted as a supply centre declined. The other cantonments except Ranikhet, Landour and Lansdowne, also recorded a decrease in their population It seems that miltary personnel were generally being moved out to the plains except from a few selected cantonments as a precautionary measure for the impending threats to the security of the British.

A comparison of the trend of the overall growth of population in the Region, and in India clearly illustrates the time lag involved in the diffusion of the socio-economic impulses of urbanisation generated in the plains. Also it is obvious that although these impulses were stronger than in previous decades, their effect was restricted to the already favoured altitudinal zones since the Trans-Himalayan region and the Central Himalayas remained devoid of any town (Fig. II).

The Decade (1941–1951)

This decade marked the termination of a long period of gestating urbanisation in the region. For the fiirst time the rate of growth of urban population in the region (54.4 per cent.) was higher than that of the country(41.4 per cent), and highest since 1881 and also for the succeeding decadas. This was partly related to the settling of the displaced persons in the urban areas in the wake of the partition of the country, and partly due to a general improvement in the economy of the Region. However, the role of industrialisation in the growth of urban population in the Region was still non-existent. The emergence of the new towns of Tehri, Narendranagar, Devaprayag, Muni-Ke-Reti, Dogadda and Clemet Town Cantonment resulted in the infilling of the already existing town clusters while the recognition of Uttarkashi and Tehri as towns extended the urbanisation zone northwards (Fig. II). Kotdwara was reclassified after two decades.

Tehri and Narendranagar were successively the capitals of the Tehri-Garhwal state : the first from 1815 to 1930 and the second from 1930 till the merger of the state in independent Indian in 1949 (24). Devaprayag, situated at the confluence of Alakhnanda and Bhagirathi rivers, was the second Hindu pilgrim centre to emerge as a town since 1911 (25).

Among the growing towns exceptional growth was experienced by Dehra Dun, Pauri, Bhowali and Ranikhet cantonment. (growth of 95.5, 86.1 and 82.6 per cent respectively). This was associated largely with the settling of the displaced persons (26), an expansion in trade and commerce,

administrative functions and provision of better medical facilities. The latter especially, helped in the growth of the low altitude towns which in previous decades had often suffered from endemic diseases.

In contrast, Jaspur, a hill-foot contact zone town, whose population had followed an erratic pattern of growth, declined in this decade after growing by 202.3 per cent during 1931–41 (Table II), Nainital, which had been a popular hill resort lost popula tion mainly because some of the government offices which used to shift to this town previously during the summers stopped the practice. Lansdowne and Almora canton ments declined due to somewhat remote location and the withdrawal of the army after the Scond World War.

Of the seven new towns that emerged during this decade, six had indigenous origins and had been functioning as capitals of erstwhile native states, Hindu pilgrimage centres and halting places. The population of sixteen out of the total of twenty existing towns recorded an increase partly due to the displaced persons and partly through the proliferation of administrative and commercial functions. Most of the towns that declined recovered their populations in the next decade. The period of 1941–51 apparently heralded the advent of an era of rapid socio-economic development in independent India.

The Decade (1951–1961)

During this decade the government of India launched an ambitious and massive programme of development aimed at a considerable transformation of the social and economic conditions of the country. The basic strategy adopted was the implnementation of the Five Year Plans. Although the country was gradually settling down after the turmoil that accompanied the partition of the country, and was poised for a major socio–oconomic thrust, urbanisation was not yet accepted as a deliberate policy inherent in planning. However, the developments in structural and infrastructural components were widespread spatially and concentrated locally accelerating the pace of urbanisation.

In the Study Region the growth of urban population was extensive. The vigorous ncrease in the capacity of cantonments resulted in an addition to their population. Chakrata cantonment recorded an exceptional growth of 148.9 per cent. Among others the increase in population varied from 46 0 per cent in Nainital to a marginal 0.9 per cent in Clement Town. The extension of road transport and the associated increase in tourist and pilgrim traffic, and also the growth in tertiary activities led to an increase in the populations of hill resorts, market and break-of-bulk towns, supply centres and pilgrim places. In all, twenty two out of a total of twenty-nine towns recorded an increase in their population

Two towns Muni-Ki-Reti and Pithoragarh which had emerged in 1951 and 1941 respectively were declassified. Among the new towns, Bah Bazar was an extension of Devaprayag and was functionally integrated with it (27). Rudrapur was an old settlement (-8) and Raipur had been functioning as a market centre for some time.

The decline in the three cantonments of Dehra Dun, Landour, and Almora was not considerable (4.4, 1.9, and 6.7 per cent respectively).

During this decade the trend of the movement of the Punjabi displaced persons Into the southern parts of Uttarkhand persisted due to a second wave of migration of these persons from Punjab. The development of transportation and commercial functions thriving in a symbiotic relationship provided an additional impetus for the growth of urban population in the region

The Decade (1961–1971)

During this decade promotion of urbanisation was accepted as an element of national planning policy. It was considered that urbanisation would automatically lead to the diffusion of socio-economic develop-

ment. In addition, due to the aggression by China in 1962, the region received special attention due to its strategic importance. Consequently, there was increased military movement and accelerated road construction. The latter provided additional economic stimulation to the reigon. This in its turn prompted the construction of roads, strategic as well as non-strategic (29).

The pattern of growth of urban population during 1961–71 was the cumulative result of the operation of edogenous as well as exogenous forces operating during the pre-Independence period and also the planning effort in the post-Independence era.

In addition to Muni-ki-Reti and Pithoragarh which were reclassified, six new towns emerged in the census of 1971. Of these Chamoli Gopeshwar, Joshimath, Bageshwar, and Badrinathpuri were Hindu pilgrimage centres functioning since the earliest decade but were not recognised as towns (30). Tanakpur also had indigenous origins and had been functioning as an inportant market centre for the traders from Tibet and the plains (31). Vikasnagar had beeen established at a much later stage as an industrial estate.

Except two, Dogadda and Raipur, all the towns in the Region experienced an increase in their population (Table II). The urban population of the Region itself increased by 49.8 per cent as compared to the state average of 31.0 per cent.

All the towns in the Region were located in the Outer, Lesser and the southern flank, of the Inner Himalayas. The distribution of towns followed the valleys not because the river was a line of transportation but because the river terraces provided flat and gently sloping land for the building of the towns and for providing the routeways. The valley-head locations are particularly marked in the indigenous and older Himalayan urbanisation. These locations produced a strongly lineated pattern such as Rishikhesh Muni-ki-Reti, Devaprayag, and Srinagar, Chamoli-Gopeswar and Joshimath, located along the Ganga and the Alaknanda respectively. Many of the towns, such as Devaprayag, Joshimath, Dogadda and Tehri were located on the point of confluence of the rivers.

The distribution pattern of towns essentially comprises of linear belts with one extremity near the main Himalaya in the north and the other at the foot of the Siwalik Hills in the south (Fig. I). The latter is a strikingly developed belt running east-west along the hillfoot contact zone with the adjacent Indo-Gangetic Plains. Beginning from the east, the belt passes along the southern edge of *Tarai*, *Bhabar* and Siwalik Hills respectively.

Contrary to the logical expectation, the hill-foot towns did not originate first. The towns of interior locations are oldest and were originated by indigenous urbanisation (Fig. II). Many of them were the capitals of erstwhile principalities or the halting places along the Indo-Tibetan and Tibetan and Indo-Central Asian trade routes or were functioning as pilgrimage centres. Subsequently, the British established military cantonments, sanatoria and hill stations on higher slopes and the ridges flanking the important river valleys. In order to link these interior towns with the adjacent plains a series of towns were developed at the foot of hills along the contact zone. The development of Nainital and Kathgodam, Lansdowne and Kotdwara are good examples of such development. Thus, in a time sequence, the indigenous towns would be the oldest, and the hill-foot urban settlements the youngest. This is contary to the norm of the hill-foot town being younger to the interior settlements. This may be termed as the phenomenon of inverted chronological sequence in which the interior town is older than the contact point town (32).

Conclusions

The urbanisation in the region has strong indigenous roots in the form of

capitals of native states and principalities, pilgrimage centres, trading centres for the exchange of goods from Tibet, and halting places for the journeys to and from the last two types of places. On this base were implanted the British created settlements, namely, cantonments, sanatoria and hill stations. In addition, the British superimposed the administrative function on many of the older settlements and also created some new towns to perform the same function. In some cases the different functions operated parallel to each other, in others they converged. In the latter cases the growth was comparatively high.

The hypothesis, so often proposed, of altitudinal zonation in the mountainous regions like Uttarkhand needs to be modified in the context of the characteristics of terrain, specially in relation to the terrain controlled pattern of transport lines and linkages. The different transverse valleys are, in fact, the conveyors of urbanisation impulses. Within each valley belt, therefore develops a kind of sub-regional system of urban growth producing a linear pattern of interlinked towns. Thus, the urban centres are essentially concentrated in north-south extending belts aligned with the major river valleys. Such a zonation in the east-west direction is less marked. This validates the hypothesis that the urban places in mountainous regions would form a linear distribution pattern.

Another striking feature of the distribution pattern of towns in the region, and in other mountainous areas in India, is the construction of wide roads and railways up to the hill-foot towns during the British period. This was done to interlink these towns to the British patronised hill settlements generally located at higher interior slopes and on the ridge crests. The hill-foot towns and those on the hill crests thus formed interacting pairs. The *raiosn de etre* of the hill-foot town, which is younger to the one located in the interior, is its functional relationship with the latter. This pattern, marked by early and independdent emergence of interior towns, indigenous or colonial, is contrary to the logically expected chronological linkage in which the hill-foot town should be older. This phenomenon is termed as the inverted chronological sequence of the emergence of towns.

The Trans and the Great Himalayan regions have consistently remained devoid of any town. This is related to the severe physical and climatic conditions in these regions and indicates the continued preference for the lower altitudinal zones (generally below 2000 metres) which contain almost the entire urban population of the region. Most of the towns are situated on the flat land of the river terraces, the valleys, the confluence points of rivers, and on ridge crests. The random distribution of these sites has controlled the distribution pattern of towns, which is also random. Each linear belt is, therefore, separated by a vast stretch of rugged terrain. One of the consequences of this development was that in the region as a whole could not emerge a higher order node with the characteristics of a primate city. This is a striking characteristic of the urbanisation in the region and is suggestive of only limited economic, social and cultural interaction within it and with the adjacent plains.

The random distribution of towns, accompanied by a diverse growth rate of the towns located in the same general area makes it extremely difficult, if not impossible to delineate regions of urban growth. The term regions of urbanisation connoting a homogeniety in terms of the rate of urban growth either becomes meaningless or possesses limited significance.

In overall assessment, considering the relative isolation, severe terrain and climatic handicaps, low level of the exploitation of natural resources and the relativeiy sparse transportation network, the urbanisation of the region has been consiberable even though most of the towns are small in size. The urbanisation of the Study Region

Appendix-1.

TABLE I

Uttarkhand : (U. P. Himalava)

Percentage of population in each class of town to total urban population (1901 - 1971)

Census Year / Town Class	1901	1911	1921	1931	1941	1951	1961	1971
Class I	23.8	25.2	25.3	27.4	37.3	45.2 (39.9)	54.4 (34.1)	57.0 (29.7)
Class II	13.9	13.4	15.3 (39.0)	13 9	10.6 (31.5)	9.0	11.7	10 8 (9.4)
Class III	11.4 (32.7)	11.0 (39.4)	10.6	15.3 (33.1)	16.5 (11.1)	14.4 (18.1)	16.6 (23.8)	16.7 (20.8)
Class IV	18.4 (12.7)	18.6 (27.5)	15.8 (16.7)	15.8 (17.3)	13.5 (31.5)	11.4 (14.0)	11.0 (17.6)	10.4 (24.2)
Class V	20.9 (31.3)	19.5 (26.9)	19.5 (32.2)	16.8 (30.5)	15.4 (17.4)	13.7 (18.4)	5.9 (18.0)	4.7 (12.4)
Class VI	11.3 (23.3)	12.1 (10.5)	13.2 (11.8)	10.5 (18.9)	6.6 (8.3)	6.0 (9.4)	0.5 (6.3)	0.2 (3.3

Note : Figures without brackets indicate state values, and those within are for the Study Region
Source : Computed from Census of India (1971), Part II-A (i), General population Tables)

is typical of a backward region functioning in an inherited and continuing colonial spatial organisation. Most of the towns which were implanted by the colonial administration did not develop adgquate hinterlands Temporary in nature, they failed to acquire economic viability. In comparison, a majority of the towns of the region originated as capitals of principalities, pilgrimage centres, and market towns. This indigenous urbanisation is much older than the exogenetic urbanisation which operated in response to stimuli originating from North India Plains, as well as the strategic location of the region. The two kinds of urbanisation in recent year have merged into each other. Wherever they have done so, the towns have geown at a faster rate. However, an analysis of the pattern of distribution of towns, and the growth in their population indicates the necessity of modification in many of the commonly believed propositions of urbanisation considered to be having a universal application.

Foot notes and References

1 The Study Region is bounded by the Siwalik Hills, the *bhabar* and the *tarai* tracts in the south. In its east, north, and west are located Nepal, Tibet, and the Indian state of Himachal Pradesh respectively.

2 The river valleys which functioned as the main arteries of transportation carried the pilgrim traffic and trade movement the two more or less concomitant activities. However, in the upper reaches the trade between Tibet and India was a more important factor than the pilgrim traffic.

3 Some of the common sites are :
   a *At the foot of the hills* : Kotdwara, Haldwani, Kashipur, Tanakpur, Kathgodam, Jaspur and Ramnagar.
   b *At the confluence of rivers*: Bageshwar, Rudraprayag, Tehri, Devaprayag, Joshimath, Dogadda.
   c *At the river bank* : Srinagar, Bah Bazar, Kotdwara.
   d *Ridge crest* : Landsowne Cantonment, Landour Cantonment, Mussoorie, Almora and Almora Cantonment, Ranikhet Cantonment, Gopeshwar.
   e *valley and valley head*: Nainital, Nainital Cantonment, Dehra Dun, Dehra Dun Cantonment, Rishikesh, Chamoli.
   f *Other sites*: Pauri is located on a hill slope, Pithoragarh on an elevated inter-montane basin.

4 The historical account of the Region based upon the descriptions in, Atkinson, Edwin T. (1974). Reprint Edition. *Kumaun Hills : Its History Geography and Anthropology with reference to Garhwal and Nepal*, Delhi: Cosmopublications. Addition information has been taken from the various volumes of the *Imperial Gazetteer of India (1908)*, Oxford, Clarendon Press, Reference to the latter has been made at appropriate places.

5 The main characteristic of the hill station was its seasonal occupance. These began as health sanatoria as a part of the British colonial ecosystem and were an expression of the sociospatial organisation peculiar to colonial urban development. See, Mitchell N. (1972). *The Indian Hill Station : Kodaikanal*, Chicago : University of Chicago, Department of Geography, Research Paper, 141, p. 11 and King, A. D. (1976) *Colonial Urban Development : Culture, Social Power and Environment*, London : Routledge and Kegan Paul pp. 108, 117 and 156–179.

6 The substantial role played by the small towns in the urbanisation of Uttar Pradesh has been worked out by Mukerji. See, Mukerji A. B. (1973). " Levels of Urbanisation in Uttar Pradesh, 1961, " *Geographical Review of India*, Vol. 35, No. 1, pp. 31–43.

7 This model applicable to urbanisation of the the recent years has been proposed and validated by Mukerji for the Avadh Region; and has also been applied to the vast hinterlands of Calcutta for the early years of the 20 th century by Raza. See, Mukerji, (1975): " Urbanisation in the Avadh Region : Uttar Pradesh," *Geographical Viewpoint*, Voll 6. pp. 1–30 : an Raza, Moonis and Atiya Habib (1976). " Characteristics of Colonia. Urbanisation A Case Study of the Satellitic Primacy of Calcutta (1850–1920), " in S. M. Alam and V. V. Pokshishesky (eds.). *Urbanisation in Developing Countries*, HyderabadOsmania University. pp. 185–218.

8 Gosal, Gurdev Singh (1962). "Regional Aspects of Population Growth in India, 1951–61, " *Pacific Viewpoint*, Vol. 3, No, 2, p. 87; also (1966) " Urbanisation in (India) : 1881 – 1961 ", *Research Bulletin (N. S.) of the Panjab University* Punjab Vol. 17, Party I–II p. 24 and Krishan, Gopal (1675). " Some Aspects of Population Growth in India 1961 – 71 ". *Pacific Viewpoint*, Vol. 16, No. 2.207. The characteristic of the great Demographic Divide have been elaborated in detail in Davis, Kingsley (1951). *The Population of India and Pakistam*, Princeton : Princeton University Press.

9 *Almora* was the capital of Chand Rajas in the 15th and 16th centuries. *District Gazetteers of U P. (1911). Vol. 35. Almora District*, Allahabad : Govt. Press, p. 199; *Jaspur* was a cloth export centre for the hills. *Gazetteer of Nainital*, Manuscript available

at Gazetteer office, Delhi; also Atkinson, *op. cit.*, p. 549.

10 There were many pilgrim centres scattered through the Region which were recognised as towns only in 1961 and 1971. See, Bhardwaj, S. M. (1973). *Hindu Places of Pilgrimage in India A Cultural Geography*, Berkeley : University of California Press, p. 81.

11 *Srinagar* was founded in 17th century and functioned as the capital of Garhwal State : *Imperial Gazetteer of India, op. cit*, Vol. V, p. 105; *Ramnagar* emerged as a market somewhat later than Almora. It was patronised by the Bhotias coming from Tibet to trade the hill produce; *Haldwani ibid.*, p. 249; and *Kathgodam* carried considerable traffic between Almora and other centres on this route; *ibid.*, and Vol. XIII, p. 11.

12 Landour, Chakrata, and Lansdowne Cantonments were created in 1827, 1869, and 1887 respectiveiy, See *ibid;* Vol. XVI, p. 135, and Vol. X, p. 126.

13 Mussoorie was considered the most popular health resort in north India; *ibid*, Vol. XVII, p. 61.

14 *Bhatia, B. M.* (1963). *Famines in India; A Study in Some Aspects of Econcomic History of India*, Bombay : Asia Publishing House, pp. 1717, 239 and 250.

15 *Nathan R.* (1898). *The Plague in India : 1896-97*, Simlat Govt. Central Printing Office, Vol. I, pp. 90-91.

16 Bhardwaj, *op. cit.*

17 *Census of India (1911)*, Vol. 15, United Provinces of Agra and Oudh, Part I, Report by E. A. H. Blunt. p. 71.

18 *Imperial Gazetteer of india, op. cit.* Vol. XX, p. 79.

19 *Singh, R. L., Ed.* (1971). *India : A Regional Geography*, Varanasi; NationalGeographical Society of India, p. 466.

20 During this decade there was a maximum concentration of population in the health resorts. *Census of India (1921)*, Vol. 16. United Provinces of Agra and Oudh, Par-I, Report by E. H. H. Edye, p. 36.

21 See, Gosal, Gurdev Singh, f. n. 8 above.

22 *Census of India (1937)*, Vol. XVIII, United Provinces of Agra and Oudh, Part-I, Report compiled by A. C. Turner, P. 68.

23 *District Gazetteer of U. P. (1161)* Vol. 35, Almora District, p. 276.

24 *District Gazetteer of Tehri-Garhwal, (1976)*, Compiled by Madhuri Srivastava, pp. 247 and 250.

25 Rishikesh was the first pilgrimage centre to be recognised as a town.

26 *Census of India, (1951)*. Vol. II, Uttar Pradesh, Part I-A, pp. 172-178.

27 *Census of India (1961)*, Vol. 15, Uttar Pradesh, Part I-A (i) General Report, p. 205.

28 Atkinson, *op. cit.*, p. 549.

29 *Bose, S. C.* (1972), *Geography of the Himalaya*, New Delhi : National Book Trust, P. 98.

30 Bhardwaj, *op. cit.* f. n. 10.

31 *Imperial Gazatteer of India, op cit.*, Vol., XXIII, pp 218-219.

32 The time sequence of the emergence of towns in different census years tends to present a different pattern However, a comparison of this censal sequence with the pattern of indigenous towns which had been functioning for a few decades before being recognised by the census leads to the present conclusion. Also, it is apparent that the indigenous urbanisation had its own economic system of hill-foot and interior townst, he British only created an appendage to this system.

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