

The NEHU Journal

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EDITORIAL

Several readers of *The North-Eastern Hill University Journal of Social Sciences and Humanities* may remember the hard work put in by its editors and the quality of articles published in its issues. Unfortunately, the journal failed to maintain its regularity and seriality due to many reasons one of which was the appointment of the Director of the Publication Cell as the Editor of the journal. As a result, the work of giving the journal a chance to grow and mature was sometimes taken as a routine work, just as headship and deanship, which usually lasts for a period of three years. This arrangement has changed now, with the segregation of directorship of the Cell and the editorship of the journal. One other serious handicap was the vacancy of the post of the Publication Officer for a very long period,

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was holding other charges simultaneously. Now we not only have a full-time Publication Officer, Dr. T. B. Subba, the Associate Editor, but also an efficient Copy Editor in Ms Nabonita Ganguly. With their presence, the journal gets its backbone and its life. Now even if the Editor has to go the journal will not.

With some such happy developments under the guidance of the Vice-Chancellor, Professor Mrinal Misi, we also thought it prudent to open the journal to all branches of knowledge and to name it *The NEHU Journal*. Thus we start the journal with a new name and serial number and pledge to give it a much longer life than its earlier *sister*. We hope to receive your cooperation in subscribing, contributing (as authors and/or referees), and helping it grow as the most important journal of Northeast India. We wish to make the journal not just a mirror but also the most important forum for discussing the issues that living in this region brings us close to. We desire to make it the very idiom of the region.

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Process and Agency of Precolonial States in Arunachal Pradesh

A.K. THAKUR

Despite contrary claims¹ and systemic neglect² by the earlier scholars working on the aspects of the early history of Northeast India and Arunachal Pradesh, the aspects of the formation of precolonial states in Arunachal Pradesh have been seriously researched recently³. However, much more is still to be studied. The present paper attempts to study the technological base as the process and agency of precolonial states of Arunachal Pradesh. It is based on my archival researches, library and field studies⁴ and primarily deals with the defence and agrarian technologies. The article may be seen as the shift from generalized description of tribes to problem oriented specialized studies.

I

The people of Arunachal Pradesh are described by the anthropologists as Indo-Mongoloids, while *Kirata* is the generic name given to them by the Indologists. Though we find stray reference to these people in the *Sabhaparva* (Book II) of the *Mahabharata*, the *Periplus of the Erythrean Sea*, the *Geography* of Ptolemy, the *Kalika Purnana* etc.; but these do not give us sufficient clue to study the social and material foundations of the tribes. However, it is apparent from the literary sources in corroboration with the myths among the Hrussos (Akas), Mishmis, and the Banferas (Noctes) that during the early medieval period the tribes living the first range of hills from the side of Assam had attained some degree of acculturation and at least a rudimentary beginning of stratification among the Hrussos (Akas) and the

Banferas (Noctes) was already made. Thus assuming the nature of "post-primitive" tribe. Here the suggestion of the *Kalika Purna* is also an important pointer to evaluate the process of upward social mobility of the Sanskritised tribal groups. It mentions that the *Kiratas* were driven out for settling the twice-born. The *Kiratas* were pushed back to further east and towards the seashore. Even at this juncture (A.D. fourth - fifth century) the social formation among the tribals of Arunachal Pradesh was not complex and the differentiation was also not clearly marked.

Initially, the people of Arunachal Pradesh were primary hunters and gatherers moving in bands among whom lineage or clan organisation was not developed. However, in their long struggle against nature for survival, they developed the clan organization. At this stage, hunting was done by the whole community and the prey was distributed almost equitably among all the members of the community. But the system of chiefs originated at this juncture to regulate the hunting and gathering activities and proper distribution of the fruits of labour. However, insecurity of gains from hunting and food gathering and difficult geographical conditions compelled the people to take up domestication and breeding of animals. So, the animals became the item of property. Initially these were held communally, but gradually these became the exclusive possessions of individual families. Therefore, powerful tribes started predation of their neighbouring territories as an extension of hunting and gathering activities as well as for capturing animals.

At this stage the first great social division took place between pastoral communities and communities living in the hunting stage. Gradually in the intra and inter tribal relationship for a medium of exchange and a measure of value cattle, especially *mithun* assumed a significant role. The *mithun* is a browser and prefers the tender shoots and younger leaves of the forest to the grass of the open country. Hence, it is particularly suited for wooded country and the environment of shifting cultivators provides suitable forage in

the secondary forest springing up in the abandoned *jhum*. Here, it should be mentioned that the total land under *jhum* cultivation is reported to be 1,26,900 hectares which works out to 87.34 per cent of the total cultivated area.⁵ The *mithun's* meat is highly prized, but *mithuns* are usually killed only for sacrificial or on ceremonial occasions and unlike common cattle, are not butchered solely for the sake of meat.⁶

Though important as a medium of exchange and measure of value in the society but being perishable, subjected to reduction in the value through ageing and highly coveted consumable items for ritual feasts and ceremonies, the *mithun* along with other animals could not be a dependable means of surplus accumulation for long. Yet those possessing a relatively large number of *mithuns*, cows, yaks, pigs, etc. were recognized as affluent in the society. Since the rate of increase in family was less than the rate of increase in animals and hence more and more people were required to look after the animals. Therefore, powerful tribes started predation to their neighbouring territories as an extension of hunting and gathering activities for war captives. These captives were enslaved first for breeding of animals and then for cultivation.⁷

Persons with notable skills either in maintaining peace and solidarity of the community or in performance of animistic rites and rituals became influential and acquired a large number of cattle. And now having a sizeable cattle reserve in their hands, this influential section mustered a labour force also from within the clan members. With this the rudimentary beginning of differentiation and thereby stratification in a loose sense may be observed which set forces in motion to effect changes. The occasional voluntary tributes given by clansmen and defeated clans along with retaining greater share from communal assets might also have proved a catalyst in this regard.⁸

Firstly the influential section within the community developed mainly because of animal wealth, especially *mithun*. Again when cultivation began this dominant group pressed their

will to acquire more suitable plots of lands from the community land for jhumming. In other words, the process of differentiation which began with accumulation of an increasing number of animals was supplemented further by accumulation of surplus in foodgrains because of their better control over the means of production and appropriation. Slaves captured mainly during the predation of the foot-hills of Assam were a significant addition to the evolution of social stratification in Arunachal Pradesh. And, slave-owning became an essential component of social processes in Arunachal Pradesh. Not only the institution of slavery but some other forms of un-free labour too received recognition from laws and customs of the society, tribal eschatology and sanctions from the conventional religion.⁹

The influential section of the society made successful attempts to control both resources and production. This took the form of claims over land and revenue accompanied by using the labour of others to work on the land. This section, due to enhanced agrarian production and acquisition of coercive powers, was in a better position to extract an unprecedented quality of surplus. At this stage it is clear that beginning and continuance of settled agriculture and organized village communities have been instrumental in the process of state formation in Arunachal Pradesh. The leaders or chiefs or kings tried to maintain a balance playing the following roles: controlling/protecting the people of the area from above, extracting surplus, building up an army or tribal-peasant militia, expanding the territorial domain and acting as the patrimonial heads of the polity or state.¹⁰

II

At the outset of the discussion on the technological base of the precolonial states in Arunachal Pradesh it is important to mention that we have the evidences of the distortion of facts¹¹ as well as neglect in the studies on various tribes of their technology¹² and planned destruction of centuries old archaeological features of

defence technology of tribals. The destruction was officially planned by the British because the fortification was regarded as the symbol of resistance to colonialism. Hence, for the reconstruction of a technological base we have used literary and archaeological evidences, as far as available, either to corroborate each other or to fill up the lacuna; to get a really satisfying and complete picture in serving the cause of history.

Besides some equally important technologies of people of Arunachal Pradesh, which are to be seriously examined separately, such as building construction, paper making, sericulture, weaving and printing of cloth, indigenous poison, windmills, handlooms, handicrafts, etc. we have analysed here the defence and agrarian technology. It is mainly because the two factors a) conquest/defence b) irrigation/agriculture are very important agencies in the process of state formation¹³ also in Arunachal Pradesh.

The defence technology in Arunachal Pradesh had rapid, and considerable progress during the waring ages. During the periods of internal feuds the pace of development was not rapid because of almost the same level of technological advancement on both sides. But, during the period of external aggression and exposure to the neighbouring world the response and necessities made the indigenous techniques more effective in respect of defence technology. Here, it is important to mention that Arunachal Pradesh, bounded by Tibet and China in the north, Assam in the south, Myanmar in the east and Bhutan in the west; provides today the best example of a cultural continuity that has survived a long and diversified history where changes have occurred, old images of life have been altered and new elements and influences have been absorbed and amalgamated, enriching and variegating the cultural strands, without, however, mutilating them; because it lies at the tri-junction of the Indo-Chinese, Indo-Myanmar and the Indian sub-regions.

In the geo-political, socio-cultural and economic arena of Arunachal Pradesh tribal feuds and other aggressions had been a

regular phenomenon which had naturally given birth to and made to develop the defence as well as offence technology. The defence technology is evident from the making and placing of stockades, *panjies*, stone chutes (booby traps) as well as selection of sites for establishing villages, etc. Here, all these have been combined into one term: the fortification technology, because of their combined and effective use for the defence of villages against any external surprise attack or planned aggression.

The placing of stockades were the principal elements of fortification. They were constructed by placing stout tree trunks in the ground and tying them with cane. The end of each post was sharpened to a point and the height of the structure was also sufficiently difficult to be crossed. The bamboo stockades were temporary affairs and were used mainly for field fortification. However, bamboo was also common in use to reinforce the timber. Sometimes big stone pieces (boulders) were also used for the stockades. These stockades usually encircled a village, except where the ground made it unnecessary.

The *panjies* were spikes of bamboo or other hard wood of eight to ten inches, sharpened to a needle-like point and hardened by fire, impregnated with fatal poison at one end while the other used to be inserted in the ground amongst the grass at an angle that just could catch the feat of any unobservant walker. They were laid in thousands all around the village or were concealed under leaves about the paths leading to it where it was imperceptible to the eager invader. As the attackers were unfamiliar with the position of planting of *panjies*, they generally attacked at night or adopted the method of surprise attack, one by one felled to the ground and met instantaneous death or in this state *panjies* easily penetrated a soft boot or gaiter and were disastrous to a barefooted coolie. Sometimes similar pieces of bamboo, placed horizontally some two or three feet from the ground, were also employed for this purpose.

The stone chutes or "booby traps" were also a part of the fortification. It is assumed that most of the villages were cordoned

of stone chutes formed of boulders which were so placed that they were released by the enemy himself as he advanced along a jungle path through some defile leading to the village. In some cases, the stone chutes were so skillfully placed and tied that a single cut in a rope or cane was used to release a number of chutes from above on the attackers.

The selection of a site for establishing a village was an important aspect of the defence technique. The approaches to the villages were often up through tortuous narrow covered ways or lanes, with high banks on either side, sometimes through a steep ravine and the bed of an old torrent. It has been rightly stated that they selected "... very inaccessible places for their villages. Surrounded by bamboo palisades or protected by a stockade of tree trunks, with all approaches carefully "panjeed" and flanked by 'chutes' the village presented a formidable position to an attacking party".¹⁴ The unpublished archival materials as well as diaries, memoirs, reports, etc. of the British period are very important source materials for the reconstruction of the technological base of the precolonial states of Arunachal Pradesh. It has been reported that the initial British operations against the Singphos (1824-26) were "invariably against fortified villages and entrenched positions".¹⁵ A more detailed account of the Singpho technological base of stockades, warfare, etc. have also been reported subsequently. It says that "The Singphos like to have their villages on the bank of a running stream ... a number of their villages are stockade ..." ¹⁶ Further F. Jenkins writes in detail to formulate a policy regarding the Singphos. He observes: "The Singpho country is eminently unfavourable to the operations of regular troops, owing to the closeness of the country, its mountainous character ...on these grounds unless absolutely necessary, I think war should be avoided — the more so that a little experience must teach the Singphos how to take advantage of the natural defences of their country, and recent events show that they are improving in this respect". ¹⁷

The Khampti villages were also strongly fortified, not only during those troubled years but even half a century later. The military report clearly shows that village fortifications were not a thing of the past. "All the big villages are stockaded; the stockades are very strong and high 16' to 20', the stockades are double and upto a height of 4 feet from the ground, the spaces between area are filled with earth and stones; the tops of the stockades are pointed; sharp pointed panjees are indigenously placed to prevent men from scaling up the sides. Within the stockades which surround the village is often an inner one, in which is built the house inhabited by the Raja".¹⁸

The technological base of the Khamptis are more importantly conveyed in the proposal of 1840. It mentions: "I would beg to recommend that Khampti Dhaos (hatchet) be purchased for the whole of the sepoy's at an estimated expense of Rs. 1350/- as proposed by Captain Vetch ... that the Dhaos should always be kept complete hereafter and be mustered as a part of the regular equipment of the regiment ...

"I would also urge the great advantage, may necessity for adding Khampti Dhaos to the equipment of the corps as in the jungle warfare in the Frontier, the men are in a measure helpless without some instrument of the kind, either for cutting into an enemy's stockade, or in erecting one for themselves. ... and calculate the average price of each at Rupees 2, annas 8 it would require an expenditure of Rs. 1,350 to complete the equipment for the whole regiment but as these Dhaos are brought (from) a great distance it would probably be a year or two before enough would be procured if my suggestions be approved."¹⁹

About the Khamptis the findings of Verrier Elwin are significant and should be mentioned here. He writes: "It is customary for the chiefs to employ themselves in useful and ornamental arts. They work in gold, silver and iron, forge their own weapons and make their wives' jewels. They also manufacture

embossed shields of buffalo or rhinoceros hide, gilding and lacquering them with skill and taste".²⁰

The control over iron by the Khamptis in their hills and the technology evolved by them for the Dhaos and other war weapons and the settled agriculture only in the Dihing river valleys²¹ must have positively contributed as the process and agency of state formation and expansion of the precolonial states of eastern Arunachal Pradesh.²² The permanent place of the Khampti chief in the "Great Council" of Ahoms is also indicative of the power and privilege enjoyed by them. Even the British continued their privilege after the occupation of Assam²³ and were proposing to procure the Khampti Dhaos for the British soldiers stationed in the area.²⁴

Though among the Adis there did not evolve the chiefdom similar to the Singphos and Khamptis but in the precolonial polity formation among them²⁵ the defence technology of villages is very important. The defence technology of the Adis had some sort of advancements during the period of British aggression of the area. The response and necessities made the indigenous techniques more effective similar to the Singphos²⁶ and other tribes. The advancement is in the form of rapid strategical changes and advancement in stockades techniques. The system of a double row of stockades with earth and stone in between is a later innovation and was the result of the introduction of firearms by the British. Another technological development is in the placing of the stockades. Earlier it was a "defence perimeter" of village later on for the safety of the village, minimum loss of the defenders of the village as well as the villagers and making the evacuation of the village safer and easier, the stockades were even "two miles" away from the village.²⁷

A brief discussion of the three British aggressions in the Adi area will make my formulations clear. It has been reported²⁸ that in the expedition of 1858-59 "... in three cases it was necessary

to use the howitzers to open a way for the assault”, and the British were able to defeat the natives. But the victory was not so easy during the second campaign (1893-94). It has been mentioned that “The Abors (Adis) fought well standing to their defences and keeping up showers of arrows on the attackers who have to back away from the *chevaux de frise* of bamboo stakes and long *panjis* which prevented the stockades being reached. At last the Abors gave way and the defences were carried, many dead were found inside, Maxwell’s casualties being 25. Success occurred, however, too late in the evening to allow any further move on the village, which the next morning was found deserted.”

Further advancement in the defence technology is witnessed during the third and final expedition in the year 1911-12. It has been reported “Here it was found the large stockades believed to have been at the village were two miles south of it, defending the crossing of Egar river from the top of a steep spur. As the advance guard neared it the Abors cut loose a number of ‘rock-shoots’ sending down an avalanch of boulders, narrowly missing the General, who was close up, and knocking one of his staff down the ‘Khud’. The Abors then opened fire with arrows and muskets, one of the former (fortunately for the attackers was non-poisoned) hitting the GOC slightly in the hand. Two companies climbing high up while the defences were held in front, out flanked the stockades which were then rushed but found to have been evacuated”.

The features of defence technology during this expedition can be seen as the combined use of stockades, stone-shoots and fire from arrows and muskets. As a consequence, the possibility of heavy and tactical casualties on the aggressor became quite real and the defences of the local population became more effective. The defence techniques of the Adis, on the one hand, demonstrate the gradual advancement and on the other, it also demonstrated state of defence arrangements according to the status of the village. As reported²⁹ (during the expedition of 1911-12), “This brings us

to the next occasion on which the British encountered the Abors ... To punish the tribes and also to explore and survey this country, for owing to China's moves in Tibet and along its south-eastern borders a real interest was at last being stirred in this long stretch of unknown border lands... From Rohtang reconnoitring parties of Gurkhas and M.P. (Military Police) located a very large stockade some 3 miles up to the Dihang Valley at Kakyar Monying Unlike other such defences, this one could be seen built down to the water's edge, which beyond it was a large Abor (*Adis*) encampment, and here it was hoped to inflict a severe blow before the chief village was reached (Kembang-village)."

Like many uncommon traits among various tribes of Arunachal Pradesh, their process and agency of precolonial state formation and defence technology are also different. It has rightly been reported that among the *Dafla* (Nishis or Nishings) tribe of Arunachal Pradesh, there was neither any attempt to fortify their village nor were the village sites selected with a view to facilitate defence.³⁰ The Daflas tended to migrate, dispersal was its defence and it was impossible for a raiding force to surround the whole village. Their security lay in their number. Besides, the institution of *gingdung* assured the settlement of their own feuds and strong clan affiliation made possible combination against forces. In addition to the strategic analysis of the Daflas, their indigenous genius has come to light through our discussion during field studies.³¹ They justify their scattered village establishment techniques to cater to the demand of defence against sudden attack or planned aggression. In such a case with just a call for emergency preparedness people from all the houses from every direction could come rushing thereby leaving the attackers in confusion and bewilderment, consequently compelling them to flee for their own self-defence.

In the discussion of the technological base of the precolonial states of Arunachal Pradesh an analysis of the remains of the forts/fortress is also important. Here, it is essential to mention that after

independence much of the energy and resources of the Department of Research, Government of Arunachal Pradesh was channelised in the ethnographic studies of different tribes and on the studies of Ita fort and the forts of Bhishmaknagar and Rukmininagar.³² The remains of forts/fortresses of Bhalukpong and Thembang could not draw the attention of earlier scholars practically. Though, the forts of Arunachal Pradesh cannot be compared with the Muslim, Maratha and Rajput forts of India in their structural technology, but the former would have been best suited to the nature of terrain and to the warfare of the times.

The Ita fort³³ (built between A.D. 1350 and 1450) is within the new capital of Arunachal Pradesh, Itanagar. The fort could be identified with Mayapur, of a local king Ramachandra, alias Mayamatta and his son Arimatta. The fort is actually a fortified area of an irregular shape enclosed with natural ridges and brick ramparts. There are two brick walls and three gates. The walls cross over uneven terrain and deep *nallahs*, where remains of culverts and steps exist. The area thus fortified is more than a square kilometres sloping from south to north and has a number of *nallahs* and gorges providing ample water as well as escape routes. The bricks are of varied sizes. Even decorative bricks are available. Their mass production was obviously made at the site itself. The sandstone seems to have been brought from elsewhere. Thus the entire complex is, indeed, a meticulously planned work. It is a monumental task based on intimate knowledge of the terrain and involving immense resources, human as well as material.

The forts of Bhishmaknagar and Rukmininagar actually represent the first Aryanized kingdom of the easternmost India that extended in the plains between the Dibang and Lohit rivers. The tradition of Rukmini, the daughter of Bhishmaka, the King of Vidarbha (Berar) who was kidnapped by Shri Krishna, can be associated with this area. The forts existed as early as the tenth century and the thirteenth century came under the Chutiyas and passed on to the Ahoms in the sixteenth century. The excavated

evidence is clearly indicative of their know-how. Besides classical fort architecture, they were also familiar with wheel-turned pottery, terracotta art and advanced metallurgy.³⁴

The Bhishtmaknagar Fort³⁵ is built on a flat piece of land, jutting out towards the south, from the northern hills. The mountain wall provides a natural defence and on three other sides an earthen rampart runs about 5 kms in length, though broken in between. The fort has an elongated semi-circle shape, extending over an area of about 10 square kilometres. After the excavation of the area "... it became quite clear that it was a well planned and well protected city inhabited by people who reached a high degree of culture and civilisation".³⁶

Regarding the study of the technology of Bhalukpong Fort a most pathetic scene emerges on account of the non-existence of remains today. It is shocking to see that a road (connecting Arunachal Pradesh with Assam) passes through the fort complex and its bricks were used for construction purposes. The entire area was levelled mainly for the construction of government buildings and also for private purposes. However, a recent archaeological find³⁷ of 248 silver coins of mainly two types (small and big) of a Muslim ruler of Bengal encourages us to look afresh at the aspects of the fort. As reported,³⁸ the fort was situated on a hillock 300 feet high at the débouch point of the Kameng or Bhareli river. Three sides were surrounded by a brick wall and on the fourth the fortifications carried across to an adjoining hillock that sloped gradually to the plain. Hewn stones, remains of plinths within the ramparts and a steep pathway paved with stones leading to the eastern face of the hills also existed.

As part of my field studies to the area, I came across the fact that the king's treasury was in the north-western side of the complex. A very thick (3 to 4 feet) boundary wall, almost touching the treasury was constructed over a rivulet (50-60 feet deep) perhaps for the protection of the fort in general, and treasury in particular. An alternative source of water was obtained in the fort complex

by digging two wells one in the south east and the other in the south-west parts of the complex. The whole complex of about 3 square kilometres provides ample scope for archaeological excavations by experts.

An Aka legend initially reported by R.S. Kennedy and confirmed during my field studies is a significant pointer towards the Bhalukpong Fort. It mentions³⁹ “Long long ago all men descended from heaven to earth by means of a ladder. The Assamese and Akas of the royal blood came down by a golden ladder, the remaining Akas had a silver ladder; the Tibetans and Monpas were given a ladder of iron; the Daflas and Abors had to be satisfied with a bamboo ladder; while the Cacharis and Khoas shared a plantain ladder. All these men came to earth on the Longkapur Hills in the Lohit Valley, whence they scattered in search of land The Akas spent so much time resting and drinking beer that the others got the best land and they had to accept what was left They first settled near Bhalukpong built their respective capitals” In a somewhat different way it has been reported,⁴⁰ “At Bhalukpong in the gorge of the Bhareli, ...are the ruins of a fort, which is said to have been the capital of Bana’s grandson, Bhaluka, from whom the Akas trace their descent”.⁴¹ The fort (Durga) and treasury (Kosa), which are the important elements of the state described by Kautilya, are also significant in case of Arunachal Pradesh. The forts lie along the foothills, connected with rivers and were constructed actually at strategic spots, intelligently fortified for defence purposes. A position of geographic vantage, water supply, sufficient land to support the population inside, secret routes for escape, the expected direction of the enemy’s attack, and communication with the Brahmaputra Valley have been the major considerations in building the Bhalukpong fort. Similar in most of these features except for its location in the foothills and sufficient land to support the population inside is another important fort in Arunachal Pradesh which provides us great potentials — to be discussed in our studies in the technological base to precolonial states of Arunachal Pradesh. A brief description of the findings of

my field study of this fort, not yet studied by any scholar so far, of this area is worth mentioning in this regard.

The fort, fortifying the village Thembang, under the Dirang Circle of the West Kameng District, Bomdila as the headquarters, is yet to be fully connected with a pitched road. The village Thembang is inhabited by the Buddhists and the villagers have a separate identity as "Thembang Monpa".⁴² The village was fortified after shifting it from the plainsland to the slope of a hill mainly because of the pressure from Rupa, Rurang and Sangti villages of the area. The fortified area about 400 mts. east-west and 200 mts. north-south of the village surrounded the compact houses of the kings (*Bapus*) and their dependents (*Gilas*). On the eastern and western sides of the village two gates were constructed of stone pieces of irregular sizes with the provision to close them during the night. Though the gates exist the 8 to 10 feet high boundary wall of the village (as reported by the villagers) is presently almost non-existent.

The fortification was completed mainly with the manual labour of the villagers of Khoina, Boot (now Jirigaon), Khoitaro and Rahung as well as the *Gilas*. Their services were also utilized for *ungyangben* (seed sowing), *ungashing Cheewan* (plantation of trees), *rongbanghen* (carrying goods), *phijangben* (construction of houses) and the most important here is *jangri* (construction of fortification wall), adopting the method of *tchikpen* (putting the stone pieces one above the other).

They also had to help the *Bapus* while on attack or being attacked. The villagers of Khoitam beheaded the military commander of Rupa village while he was returning from Thembang after an attack. They sent the commander's head to their kings (*Bapus*) and body to Rupa (the Sherdukpen Rajas). From the incident the people of Rupa area call the villagers of Khoitam the *songa-sha-benkenba* (divider of human flesh). The fort provided the kings of Thembang (better known as the Thebangia Bhutias in the British records) and upper hand in the area and to some extent also upon their neighbouring counterparts. The Tibetan gun/rifle

in the possession of the kings of Thembang was another advantage which the others lacked.⁴³ These two elements combined with high agricultural production and a fairly large tax base extending upto Assam, significantly contributed not only to the establishment of their authority but also successfully resisted the expansion of the monastic order in their areas.⁴⁴

The monastic order established its initial control in the Tawang area of Arunachal Pradesh which was already divided into three territorial units (*Tsosum*) : (a) the area from Tawang to Kitpi as Shar-tso, (b) the Lhou area as Lhou-tso (c) the Jung area as Sher-tso (also known, as Jung-tso).⁴⁵ Our field studies provide us with clues to suggest that the control over the area provided the initial material base for establishment and subsequent expansion of the order in Arunachal Pradesh. The structural organization of the government of Lhasa in Arunachal Pradesh was quite elaborate. The whole area under Tawang Deo raja or Deo Abott was divided into three dZongs: the Tawang, Dirang and Kalaktang, each under a dZongpen. However, the Galong (an officer under dZongpen) was responsible for the collection of taxes and tributes and performing religious rituals in the area. He was assisted by the Lamas at village level. An important network of communications along with a large bureaucracy provided it with the necessary condition to achieve this. The existence of a common script (the Tibetan) must have helped the process. An attempt at bringing about homogeneity is reflected at the ideational level in the form of the policy of Lamaism and construction of the monasteries all over the area of influence. It was considered to be a vehicle of persuasive assimilation, not the military confrontation in which conforming to the broad ethical ideas of Lamaism was central. The three to four storeyed buildings of the dZong at Gyangher (near Tawang) and Dirang sometimes also served the purpose of jails to punish those who defied the order.⁴⁶

For the success of the ideological state the mining and forging of iron (Leh Cheme Rong) near Tawang monastery for building a

bridge, connecting Kitpi and Mukto with Tawang also contributed significantly to better communication for effective control. The monastery controlled over the iron mines and the same was also utilized for weapons etc. Subsequently it became the symbol of power and control in the area. Among the weapons spears (dung) and swords (podung) are most common and the gun from Tibet a rare one. Iron remained under the exclusive control of the monastery and its use in the plough was never promoted.

III.

While coming to the study of the agrarian technology as an important agency of state formation and the precolonial states, we find that existing studies at macro level are obsessed with the iron technology and its role in the social and polity formations and subsequent changes. Another focused area is the ongoing debate between the technological improvements and the role of the state, which facilitated the growth and development of Ahom or which one of the two came first the state or advanced agrarian technology.⁴⁷ In the case of Arunachal Pradesh, the models for the study of agrarian technology as discussed do not hold good. It is mainly because Arunachal Pradesh is a rugged hilly terrain with varied topographical climatic features which leave minor ratio of total landed area for amenable human settlements. Total cultivated land is 1,45,300 hectares which works out to 1.74 per cent of the total geographical area of Arunachal Pradesh. Further, the forests cover about 61.67 per cent (51540 sq km.) of the total geographical area of the territory, that is 83578 sq.km. according to the 1981 census (the census report of 1991 states its total geographical area as 83743 sq.km.). The total land under jhum cultivation is reported to be 1,26,900 hectares. This works out to 87.34 per cent of the total cultivated area. The constraints emanating from the tortuous nature of the terrain have prevented the scholars from outside from delving deep into the realities of the pattern of resource use in Arunachal Pradesh and facilitated ample scope for speculations

and misrepresentation of facts.⁴⁸

The tribes of Arunachal Pradesh practised agriculture and crafts of various descriptions for which they had indigenously developed tools and equipments. The tools and methods of slash and burn (jhum) cultivation had technology of an incipient type, whereas the use of the plough was an improvement which in itself was a revolution in agrarian technology and agricultural production as an agency of precolonial states. They used knives or hatchets, (dao) and hoes made of bamboo or iron (iron became popular only after the British colonization in the area) as principal tools for agricultural operations. Differing in both shape and size, the basics of the *dao* and hoe were almost similar among the tribes of Arunachal Pradesh. Abstaining from any attempt towards parochial glorification of the technological past of Arunachal Pradesh, we are concentrating here on the plough technology. Here it is important to mention that like the absence of uniformity in the polity formations and defence technology among the people of Arunachal Pradesh, the plough technology had also not been in practice uniformly. For example, among the *Apatanis* and *Akas* the plough cultivation is yet to start, whereas among the *Nishis* it is barely 15 to 20 years old. The ploughs in practice in Arunachal Pradesh is the outcome of exposure to the neighbouring world and consequent response and also of indigenous origin.

On the basis of our serious scrutiny of the plough (during and after the field studies) in the western part of Arunachal Pradesh, we do not find the use of iron in the ploughs, with scarce exception in the *Kalaktang* area of Bomdila. In some cases, iron is in use as the *thongpa* (ploughshare) and for the same a recent term (*perthongpa*) has become popular. In some cases iron is also used as the strip (*Khamer*) to tighten the *thongpa* in the *langli* (plough). This is a recent change for improvement in the technology of the plough of the *Kalaktang* area. Here, it is not intended to suggest that this change in any way has contributed to any increase in production.

Despite use of iron in the plough of the Kalaktang area, they are almost similar to that of neighbouring Shergaon in many other aspects. But these two differ from that of Tawang, Thembang Shangti and Dirang. The variations can be observed in both the parts — (a) the *Sur* (plough including ploughshare) and (b) the *Ngyashang* (yoke). In the *Sur* of these areas technological arrangements with some more implements have been found for desired tilling (deep or shallow). On the other hand in the yoke a provision is made to till even the corners of the field. This provision is known as the *Ngyasa*.

The absence of a uniform technology in the plough in the western part of Arunachal Pradesh suggests its indigenous roots. It also appears that the monastic order as well as other precolonial states had not been instrumental in the promotion of the plough and other allied technologies. From the above discussion, it can also be suggested that iron had not been a deciding factor in the plough technology and subsequent surplus production and consequent chain reactions, like stratification in the society and the emergence of trade, market and money, and states in Arunachal Pradesh. The detailed report⁴⁹ about the Singphos also provide sufficient clues in this regard. It mentions, "Buffaloes for agricultural purposes are more common". Further it informs "... is a pointed bamboo used in the hilly ground both for tilling and ...to make the holes" (in the ground). Besides this information, we get a detailed account of wooden implements used in the agriculture.

IV

The foregoing discussion on the technological base of the state formation processes in Arunachal Pradesh reinforces the essential truth that the tools and techniques developed and used here were largely the products of indigenous materials and native genius used effectively in the varied ecological niches. That is why all the tribes under discussion had technologies of their own and often different from those marvelled by others. Hence, any attempt at

⁴⁹ For details, see the study made by Ajit K. Danda, *Tribal Ethnography*.

generalization by a superficial survey at macro-level by arm-chair historians and outside scholars will be grossly misleading and biased. In the case of Arunachal Pradesh, neither the role of iron in transforming the agrarian and war technologies seems to bear any significance nor any irrigation technology in the shape of watermills has any bearing. Thus, one may surmise that only an in-depth study dealing with cognitive and non-cognitive domain of cultures of various tribes may provide us information about stimulants and barriers behind continuity and change in the technical process leading to material complexities which formed the technological base in the state formation process.

NOTES AND REFERENCES

1. For details, see the findings of J.B. Bhattacharjee, "The Tribes of Arunachal Pradesh in India's Northeast Frontier, who did not experience state-building before the British colonization in the last century" (Technology, Social Formation and Historical Inquiry, *Presidential Address, History, Archaeology and Cultural Section*, Indian Social Science Congress (Bangalore, 1992), p. 11, and the observations of L.N. Chakravarty, "The present history (of Arunachal Pradesh) begins with the inception of British rule in Assam ..." (Preface) and "Nothing is known definitely about the conditions prevailing in the eighteenth century and before that in the area lying to the north of Darrang....", in his book *Glimpses of the Early History of Arunachal*, Directorate of Research, Government of Arunachal Pradesh (Itanagar, 1989).

2. A number of serious articles and some books have been published on the aspects of state formation in northeast India in the past, but Arunachal Pradesh remained an exception. For details of this phenomenon, see the aspect of sources in the forthcoming book by A.K. Thakur and B.N. Jha entitled *Precolonial States in Arunachal Pradesh*.

3. For details, see the articles of A.K. Thakur "Peasantisation and state formation in early Arunachal Pradesh", *Proceedings of Indian History Congress* (Bangalore session, 1997) pp. 303-12 (hereafter quoted as Peasantisation and State Formation); "State Formation in Arunachal Pradesh" *NEHU Journal of Social Sciences and Humanities*, 1-1, Shillong, 1998 (hereafter quoted as "State

Formation”) and “Evolution of Social Stratification in Arunachal Pradesh”, *Journal of North East India Council for Social Science Research*, 22-01, Shillong, 1998 (hereafter quoted as “Social stratification”), and the article of B.N. Jha “Politics of Posa: A Case Study of Pre and Post Independence Scenario in Arunachal Pradesh and Assam, *Proceedings of the Indian History Congress*, Madras Session, 1996, pp. 446-58.

4. I am grateful to the ICHR and ICSSR, New Delhi for financially sponsoring my research projects “Archaeology of Arunachal Pradesh” and “Slavery in Arunachal Pradesh” respectively. The grants helped me to carry out my field studies and researches in archives and libraries.

5. For details, see S.D. Jha, *Socio-Economic and Demographic Dimensions of Arunachal Pradesh* (New Delhi, 1988), p. 198; and A.K. Thakur, “Social Stratification”.

6. For details, see Verrier Elwin, *A Philosophy for NEFA* (Itanagar, 1988), p. 9; c.f. Furer Haimendorf, *Highlanders of Arunachal Pradesh* (New Delhi, 1982), pp. 43-45 (passim) and 109; *Gazetteer of India, Arunachal Pradesh, Subansiri District* (Shillong, 1981), pp. 131, 137 and 272; *Tirap District* (Shillong, 1980), p. 173 and *Lohit District* (Shillong, 1978), pp. 84-85 and 137-38 and the articles, published in the volumes of *NEFA Information* and *Arunachal News*, June, 1968, pp. 23-27, August-September, 1976, pp. 20-24; February 1982, pp. 13-15 and June-July 1982, pp. 16-22.

7. For details, see A.K. Thakur “From Cattle to Crop: A Case Study of Peasant Formation in Arunachal Pradesh” (accepted for publication in the special volume of the *Indian Historical Review* on peasantry) and “Social Stratification”.

8. For details, see A.K. Thakur “Social Stratification” and “State Formation”.

9. For details, see *The Parliamentary Papers, Slavery in East Indies*, Vol. 28, 1941, No. 19; *The Report Upon the Subject of Slavery*, Indian Law Commission, 1841; Verrier Elwin, *A Philosophy for NEFA*, op.cit.; V. Elwin et al (eds.) *Important Directives on Administration of NEFA* (Shillong, 1967), pp. 181-85 and the Project Report of A.K. Thakur for ICSSR sponsored project “Slavery in Arunachal” July, 1999.

10. For details, see A. K. Thakur “Peasantisation and State Formation”. “State Formation” and “Social Stratification” and the article by A.C. Talukdar “Political Evolution of Arunachal Pradesh”, *The Proceedings of North East India History Association*, Seventh Session (Pasighat, 1987), pp. 131-36 (thereafter quoted as *Procs. of NEIHA*).

11. S.N. Mishra writes “...the single most important common feature of all in the region is their living by shifting agriculture which did not involve an animal drawn-plough and was solely based on human energy.” (“Private Property Formations among the Highland Tribal Communities of North-East India” *Social Science Probings*, Vol. 4, No.4, 1987, pp. 384-85.

12 For details, see the study made by Ajit K. Danda, *Tribal Ethnography*,

ICSSR (New Delhi, 1996). He writes, "Sense of aesthetics, crafts, arts, including fine arts, for which tribal people enjoy a distinction have received practically no mention ..." (p. 33). The neglect of the technological aspects of the tribal people was also because the main concern of the contemporary writers, administrators as well as anthropologists was the study of an existing socio-cultural structure that regulated the daily life of tribals. Unfortunately, the studies of the post-independence period on various tribes of Arunachal are also on the same lines and the aspects of technology are not taken much into consideration. The absence of technological aspects in the studies of tribal people is mainly because of the success of the industrial revolution in Europe and the consequent political hegemony that followed. It brought the Europeans face to face with people who being somewhat archaic in terms of technology had remained tied up with distinct ways of life. For Europeans tribals were nothing but strange and exotic.

13. For details of these two variables, see J.H. Steward, *Theory of Cultural Change* (Urbana, 1955); Karl A. Wittfogel, *Oriental Despotism: A Comparative Study of the Total Power* (New Haven, 1956); H.J.M. Claussen and Peter Skalnik, *The Early State* (The Hague 1978); J.B. Bhattacharjee, "Technology, Social Formation and Historical Inquiry", op.cit.; R. Buragohain, "Tai Ahom-State Formation: Role of Conquest and Irrigation in the Origin of the Tai Ahom State" *Procs. of NEIHA*, Aizawl, 1984 and A. Guha, "The Ahom Political System An Inquiry into the State Formation Process in Medieval Assam, 1228-1714", *Social Scientist*, Vol. 11, December 1984; R.S. Sharma, *The State and Varna Formation in the Mid-Ganga Plains: An Ethno-archaeological View* (New Delhi, 1996).

14. A. Hamilton, *In Abor Jungles of North-East India* (Indian reprint, Delhi, 1984), p. 22.

15. *Military Consultations*, 16 December 1828, Nos 28-29 (National Archives of India, New Delhi). Even as late as December 1828, Captain J.B. Neufville was asking for light mountain howitzers and rockets against these fortifications. For details of the village fortification in North-East India, see the article by Imdad Hussain, "Village Fortification in Tribal North East India: A Preliminary, Note" in J. P. Singh and G. Sengupta, (eds) *Archaeology in North Eastern India* (New Delhi, 1991).

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17. Letter from F. Jenkins to H.T. Prinsep, Esq. *Foreign Deptt., Political Branch*, 18 April, 1838, Nos. 56-57 (NAI, New Delhi).

18. For details, see C.R. Macgragor, *Military Report on Khampti-Singpho* (Calcutta, 1887).

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20. Verrier Elwin, *The Art of the North East Frontier of India* (Itanagar, 1988), p. 84.

21. For details, see Muhammad Kazim, *Alamgir Nama*, ed., Khadim

Husain and Abdul Hai, Calcutta, 1863-73 in Shireen Moosvi's *Man and Nature in Mughal Era* (Indian History Congress, Thematic Symposium) Delhi, 1993.

22. For details of the areas of the possessions, military force maintained by the chiefs, population etc. see: *Foreign Deptt., Political Branch* K.W. File, 7 January 1833, No.82 (NAI, New Delhi). (This file is not only important for the precolonial chiefs of Arunachal Pradesh but also for most other chiefs of North-east India).

23. For details, see letter from J. Brodie to F. Jenkins, Foreign Deptt., Political Branch, 9 March 1840, Nos. 176-77 (NAI, New Delhi).

24. *Ibid.*, No.169.

25. For details, see A.C. Talukdar "Political Evolution of Arunachal Pradesh", *op.cit.*

26. From F. Jenkins to H.T. Prinsep, *op.cit.*

27. For details, see A.K. Thakur "Technology in Village Defence of Arunachal Pradesh : A Study in Archaeology" *Proceedings Indian History Congress* (Archaeology Section), Patiala Session, 1998.

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30. For details of the Dafla defence, see John F. Michell, *Report on North Eastern Frontier of India*, Calcutta, 1883 (Defla section); U.G. Bower, *The Hidden Land* (London, 1953) (the fifth chapter); C. von Furer Haimendorf, *Highlanders of Arunachal Pradesh*, [New-Delhi 1987], pp. 30-36 (Passim) and A. C. Talukdar "Political Evaluation of Arunachal Pradesh", *op.cit.*

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33. For details, see Y.A. Raiker, *Itafort*, *op.cit.*; D.N. Das, "Ruins of Mayapur" *The Journal of the Assam Research Society*, Vol. VIII, No.2, 1941, pp. 43-49; L.N. Chakravarty, *op.cit.*

34. Y.A. Raiker and S. Chatterjee, *op.cit.*, p. 28 and L.N. Chakravarty, *op.cit.*, pp. 119-20.

35. L.N. Chakravarty, *op.cit.*, pp. 117-21 (passim) and Y.A. Raiker and S. Chatterjee, *op.cit.*, pp. 28-29.

36. L.N. Chakravarty, op.cit., p. 117.
37. The coins were sent to the Director, Department of Research, Government of Arunachal Pradesh vide letter No.BPG/DEV/B/10/98, dated 24 August 1998. This was unearthed while making a toilet pit for the residential quarters in the fort complex.
38. Though a sizeable number of government records provide information regarding the fort but they are mostly arranged haphazardly. For details of the fort, see the relevant parts: B.C. Allen, *Assam District Gazetteers*, Vol. V, Darrang., (Allahabad, 1905); B.C. Allen et al *Gazetteer of Bengal and North East India* (Delhi, 1979) (First Indian reprint).
39. For details, see A.K. Thakur, "Peasantisation and State Formation", "State Formation". 16n. and R.S. Kennedy, *Ethnological Report on Akas, Khoas Mijis and Membas of Tawang, 1914*.
40. B.C. Allen et al., op.cit., p. 549.
41. For details, see A.K. Thakur, "State Formation".
42. The Buddhists of Western Arunachal Pradesh are of the two socio-cultural groups viz the Sherdukpens and Monpas (the Thembang-Namsu Monpa, the Dirang Monpa, the Kalaktang Monpa, the Tawang Monpa etc.).
43. The gun/rifle is preserved in the Thembang Gompa *Chhorten* and is not open to any researchers to exactly determine its features.
44. For details, see A.K. Thakur "State Formation" and "Peasantisation and State Formation".
45. The book by N. Sarkar, *Tawang Monastery* (Shillong, 1981), though it discussed some aspects of the monastic order in the area but is unable to analyse the role of iron, communication network, role of surplus accumulation, etc. For a comprehensive picture, see the forthcoming book by A.K. Thakur and B.N. Jha on *Precolonial States of Arunachal Pradesh*.
46. Here it is worth mentioning that the Monpas of Arunachal Pradesh have resented the exaction of tributes and forced labour by the Tibetan, government to the British. The extension of the British rule in the areas of Buddhist influence was smooth unlike the other areas of Arunachal Pradesh, because people were of the view that the British rule would not be so harsh and exploitative in nature as the Tibetans. For the same reasons the Tibetans are called *Zakpas* in Dirang area meaning the "plunders". For further details, see Robert Reid, *History of the Frontier Area Bordering Assam, 1942*; J.N. Chaudhary, *Arunachal Through the Ages* (Shillong, 1982). For the Tibetan oppression in Sikkim and Bhutan, see J. Ware Edgar's, *Report on a visit to Sikkim and the Tibetan Frontier in October, November and December, 1873* (Calcutta 1874), pp. 23-24.
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48 Supra, fn. 5 and 11.

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South Asia: Search for Early African Connection

LALIT P. PATHAK

Introduction

Racial, ethnic and linguistic affiliation between the communities settled far away from each other, can be determined on the basis of their naming pattern. When some ethnic and linguistic groups migrate from a place and settle in a far away place, the naming pattern of places is retained, and even the name of the ethnic group, or individuals indicates the name of the place of origin, in some form or the other. It is believed that the racial and ethnic people of North-East India belong to the Tibeto-Burman, Sino-Tibetan, Tai-Ahom and Mon-Khmer groups, deemed to be of Mongoloid races. People now settled in Himalayan areas, Tibet, China, Japan, Northeast India, Mongolia, South-East Asia, Oceania and all others, with Mongolian features appear to have arrived in these areas, from the African continent. The similarity of ethnic groups and other names indicates that maximum impact of African names is visible in Central Himalayas from Central Africa area; in Arunachal Pradesh from Western Africa; in Assam from Western Africa; in Manipur and Mizoram from South-eastern Africa; in Nagaland from western and central Africa; Garos from Western Africa and Khasis from Central and Eastern Africa, and names of other tribes and linguistic groups of South-East Asia have similar names with that of Western Africa.

Some of the main names in Africa which have equivalent

Book Review

Sustainable Regeneration of Degraded Lands edited by Jyoti K. Parikh and B. Sudhakara Reddy, Tata Mcgraw-hill Pub. Co. Ltd., New Delhi, 1997 (IGIDR, CAP21), pp.295 + x, price not quoted on cover.

Land is the most tangible of all natural resources. It is upon land that man has left the imprints of all his cultures and civilisational remains, sufferings and happiness, achievements and failures. It is for land that many a battle has been fought, civilisations rose and perished. And yet, land remains the most contentious of all human affairs. When land as private property emerged with the development of the agrarian civilisation, some ten thousand years ago, considerable amount of land remained as a common resource for the community on which the community has *use* and occasionally, *occupancy* rights. This is often common to all the developing societies where various social groups and communities at different evolutionary phases of their social history, may co-exist. In such societies, rights on *Common Properly Land Resources* (CPLR) are generally accepted concepts of the *community* vis-a-vis the *state* and also, the individual holder of *ownership* rights. Even the developed nations do recognise the *use rights* of citizens over certain forms of environmental or infrastructural resources. This phenomenon is quite common among forest dwellers, quasi-nomads and village communities of India. However in recent times, the traditional use rights of various communities, under various circumstances, over common land resources, have come under severe stress both through the restrictions imposed by an all pervading, sovereign state and the greed of the individual encroachers over common land resources. This has resulted in severe erosion of the livelihood-system of many communities, who traditionally survived on their use rights on the common land resources.

In this light, the contributions of various scholars in a national seminar held at IGIDR, Mumbai in November, 1996 and encapsulated in the current volume is a refreshing departure from the main-stream economics— into an area much neglected but of immense significance to a large number of Scheduled Tribes, castes and village communities through-out the country. The book contains a total of thirteen papers arranged into three parts: Part I dealing with the concepts and status of CPLR, Part II dealing with specific methodologies and Part III dealing with various management practices and alternative institutional arrangements on specific case studies. Majority of contributions, of course, emanate from the CAP21 group of IGIDR.

The first paper by Vijay Laxmi and Jyoti Parikh deals with the concept of CPLR and its current status in India. The second by N.C.Gautam (of NRSA) stresses on the modern methodologies like remote sensing applications to identification of various categories of waste land and to the extent they could be utilised for land regeneration. Iyengar's paper on CPLR in Gujarat points to the modernisation forces that beset the traditional relationships like land encroachment and the possibility of state intervention in parceling the degraded *commons* to co-operatives for land regeneration, as income and employment generating activities. Nadkarni emphasises the revival of the traditional use rights system as an important component of the strategy of rural poverty alleviation in the country. Dixit narrates the travails of the Banni villagers (of Kachchh) where frequent droughts in recent years have degraded the quality of the grasslands, a common property resource and thus affecting their livelihood system.

Part II contains three papers by NTGCF and the IGIDR faculty and largely deals with the economics and methodological innovations in environmental accounting (of case studies from Gujarat and Karnataka) of National Tree Growers' Co-operative Federation Ltd. and demonstrates that many such co-operatives are not only economically viable but remunerative and thus, are

eminently viable enterprises and could be replicated in many such villages with degraded village commons for bettering their livelihood system—a major task that NTGCF has ventured upon.

Drawing extensively upon the Palamau experiments (on village co-operatives), Gopal Kadekodi emphasises the successes of such alternative institutions and management practices (primarily, land co-operatives) and their economic viability in enhancing the quality of life of the villagers. Reema Nanavathy (SEWA) takes an extreme feminist stand by forcefully arguing to hand-over the entire forestry sector to women and under women's management. Riya Sinha's paper, while commenting on various CPLR institutions (NGOs), is of the opinion that 'reward in proportion to effort and contribution' works the best. The study based on six Rajasthan villages by Kanchan Chopra and S.C. Gulati addresses the problems of linkages of CPLR system and stress migration.* The last paper by Reddy, Parikh and Parikh is based on a stakeholders' survey of Mallanhally village that analyses the strengths and weaknesses of the TGCS system adopted.

No doubt, India now is saddled with nearly one third of her land area degraded, either degraded forest land, wastelands or marginal lands, a major part of which falls under CPLR. It needs regeneration and the regeneration process can create millions of man-days of work and employment and economic regeneration of many marginalised communities. Many traditional CPLR management systems are available, many new experiments in the form of JFMCS, TGCS and the Palamau-type land co-operatives are also available. The government has no funds to regenerate all these land on its own (the ventures like the social forestry or NWDB etc.) and the successes of such efforts are limited only, and the

* Some of our own studies on Meghalaya indirectly vindicate the hypothesis that 'ecological degradation in the rural areas has led to distress migration from rural to urban areas'. It may be noted that Meghalaya, like many other North-Eastern states, has a very strong tradition of CPLR.

programmes are not quite cost-effective.

CPLR provides an alternative to such approaches, where the community is the investor and harvester of benefits. The institutional arrangements and management systems could be adopted in such a manner that the ventures truly become 'bankable', i.e., without surviving on doles from public funds. The role of government or NGOs to that extent should be that of a promoter and facilitator, allowing co-operatives to take a plunge in land regeneration as an *economic venture*.

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***Urbanization in India: Challenges and Opportunities* by R.P Misra**, Regency Publications, New Delhi, 1998 (NERC-ICSSR, Shillong, Lecture Series), pp.106 +vii, Price: Rs. 175.00 (HB).

The book under review was the outcome of a series of three lectures delivered by Professor R. P. Misra on the same theme on the auspices of the North Eastern Regional Centre of the ICSSR in the annual lectures series in November, 1996 Shillong. The book is divided into six chapters, the first two chapters highlighting the general problematic of urbanisation, the third on evolution of urban system in India, the fourth on urban growth and associated problems in India in recent times, the fifth and sixth constituting a thesis on the future scenario and agenda of India's urbanisation in coming decades and its sustainability. The book is lucidly written, not too cluttered with figures and equations and contains visions to address the ground realities (of the urban dilemma) — food for thought to planners, administrators and students as well.

The UN report on world (1993) clearly states that the future impetus for further urbanisation has to come from the developing countries, since the developed world is an urban civilisation already

and by 2025 AD, of the projected 8 billion world population 5.2 billion will be urban of which the developed will contain only 1.2 billion and the rest (4 billion) coming from the developing ones. This could be a frightening prospect given the resource constraints in developing countries and the magnitude of investment required to provide even a semblance of urban services and infrastructure in these countries.

Public policy interventions in containing urbanisation have generally failed, except under extreme regimentation as was in China where rural to urban migration for long was not permitted without official sanctions. Otherwise, though governments and administrators would wish to intervene — these are futile. Cities are not made — they evolve. They grow because of migration and migrants create accentuated wealth for the cities, build their cultures and make the urban civilisation successful.

One has the lurking fear that Prof. Misra's agenda for the future urban (desirable) situation of India suffers from a prescriptive methodology. He however, acknowledges that the *wired society* of the future on its own volition would perhaps dampen somewhat the impetus on agglomeration economies that industries and services have enjoyed for the past two centuries of industrialism. But this is just a possibility. To what extent can the developing countries transit to *information age* and to what degree and when, remains the moot question. No body would question the wisdom in having cities of more manageable sizes, better managed, disaggregated, decentralised and well integrated with the rural economy of the country —but how to achieve all that? Greater direct public intervention perhaps is no answer.

(a) Contrary to the Gandhian idealism of a prosperous village economy, what we confront is a decadent, moribund village —the city no better. What is needed is not *re-architecturing* the settlement system of the country —an utterly futile exercise, rather a well conceived public policy of larger investments in the rural economy, a sectoral shift of rural economy from primary to secondary and

service activities (— that China did so successfully in the last two decades) and maintaining a steady share of the primary sector in national GDP at about 40 per cent. (It has fallen below 30 per cent in recent times). This means in general, higher productivity in the rural sector and a balanced *terms of trade* between the rural and the urban economies of the country.

(b) A system of incentives and disincentives through fiscal means can be helpful in discouraging industries and new economic ventures coming to larger urban agglomerations and metro-cities. Infrastructural investments in small towns and their physical linkages with the larger urban centres could create counter-forces to further agglomerations in the latter.

(c) A concerted national policy for removal of regional disparities is required so that all further developmental impetuses do not polarise in developed regions alone and developmental forces are well distributed throughout the country, allowing each region to capitalise on its comparative advantages. However, *competitive federalism* may not be a useful way that has been going on after initiation of liberalisation of the economy since 1991. The least developed regions (or states) are likely to lose out in the race and there are little public resources available to develop them through setting-up of public enterprise. That this method has failed is no news. Decentralisation and *de-agglomeration* of the urban system need to be ushered in by market forces calibrated through public policies.

(d) On the front of the cities themselves, it requires more organisation and management from the precarious situation in which the Urban Local Bodies (ULB) are placed, even after five years of enactment of Nagar Palika Act (74th. Constitutional Amendment, 1993). The ULBs require to be more professionally managed, participatory and proactive to market forces, generating resources through well-designed policies of taxation, incentives and disincentives. The market growth would augment their revenues that can be re-invested into further development of the

city. The vast land resources at the disposal of the ULB must be put to productive and revenue yielding ventures. Employment will increase, income of the average city-dweller will increase, so also the wealth of the city. A vibrant and growing rural population will not run to the city for a living. There would perhaps be some answer to the urban problematic in developing countries and hope of a light at the end of the tunnel.

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