

# The 'Problem' of Shifting Cultivation in the Garo Hills of North-East India, 1860-197

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*Although several alternative critical perspectives on shifting cultivation have been elaborated, the practice of this form of agriculture continues to be viewed in north-east India in a deprecatory manner. This pervasive attitude has now come to affect the cultivators themselves. While the calculations and compulsions of the electoral process do confer some space for shifting cultivation, it survives in extremely sub-optimal circumstances. The gap between what could be done and what has been done has worked to the disadvantage of shifting cultivators. This essay studies the historical processes that gave rise to this situation and is part of a larger study based on extensive written records and fieldwork in the Garo hills region.*

## INTRODUCTION

SINCE THE 1950s, shifting cultivation in north-east India has been trapped in a low-level and unstable equilibrium owing to two equally unviable paradigms that operate at the policy and institutional levels. The dominant perspective is that shifting cultivation is a wasteful and ecologically dysfunctional system detrimental to forests and soil, and hence needs to be eradicated by inducing cultivators to adopt other forms of livelihood. When such efforts meet with failure, the other paradigm comes into play, according to which shifting cultivation is a legitimate practice that ensures the survival of people living on marginal lands and hence should be allowed to carry on as it is without external influence. As a result, shifting cultivators fall through the crack between marginalisation and traditionalism.

The reality is that shifting cultivation, in an increasingly intrusive market environment, is on a downward spiral of production and regeneration, and both approaches preclude the need of interventions necessary to make it a feasible basis of livelihood for cultivators without practicable options. If shifting cultivation is accepted as one more type of agrarian practice that, like with other forms of 'permanent' cultivation, needs the services of agronomical study and agricultural

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ension, it can be transformed into an occupation whose detrimental effects can be mitigated and productivity increased.

This essay traces the historical trajectory that made shifting cultivation, still a widely prevalent agricultural practice in the Garo hills, Meghalaya in north-east India, a victim of two imprudent policy choices that prevail despite the existence of critical literature pointing to the third option. The government's efforts to eradicate shifting cultivation by changing the subsistence basis of cultivators have been met with failure, as the last part of this essay shows. In the absence of practical alternatives and a stoic aversion by the state to step in and improve shifting cultivation from within, shifting cultivators are increasingly vulnerable, and their lands are progressively being degraded. The dominant official ideologies and policies relating to shifting cultivation have been instilled and reproduced over a period of time.<sup>1</sup> These ideologies and policies in turn, directly or indirectly, have influenced the corpus of knowledge (techniques, practical skills and know-how) of shifting cultivation communities.

#### HISTORICAL PROFILE OF SHIFTING CULTIVATION IN THE GARO HILLS, MEGHALAYA

In the Garo hills shifting cultivation, *jhumkheti* or *aba-oa*, has historically been the principal mode of agricultural production. It is difficult to estimate the population/area figures for shifting agriculture in the north-east as a whole. Even today, figures are an approximation and do not include land degraded and subsequently abandoned by shifting cultivators. The practice is carried out in semi-evergreen forest in the upper reaches and moist deciduous forest at lower elevations. The flora includes a wide variety of tree species, bamboos and an arrested succession of weeds. The soils on which cultivation is carried out are red and lateritic, they are acidic, and low in phosphorus and potassium. Nitrogen availability is irregular due to steep slopes that cause cation losses and due to depletion during the burning activities accompanying grazing and agriculture.

The climate is subtropical at lower elevations and sub-temperate in the hills. Annual rainfall averages are higher than in other Indian regions where shifting cultivation is practised, ranging from 2,000 mm per year to over 9,000 mm in Cherrapunji. Maximum temperatures do not exceed 33°C. Climatic factors make for quick regeneration of vegetative cover in contrast with the hotter and drier tracts of central and south-eastern India. Hence, *jhum* cycles of even just over seven years may be viable under certain conditions (Singh 1996). Other areas, by contrast, have a twelve-year rotation.

Historically, the Garos of the plains were under a *zamindari* system of land tenure of the Mughal empire. Under this system, land was allotted by the Mughal state to a *zamindar* who was given a land revenue title. In 1765 the region, which formed part of Rangpur district of Bengal, came under the East India Company. In 1826, when Assam too came under British rule, a separate district consisting of Goalpara, Dhubri, Kariabari and the Garo hills was created out of Rangpur. At

the time British power extended mainly to the plains. David Scott was made the commissioner of the new district and he concluded several agreements with the *akhing nokmas* (heads of clans or *machongs*) of the region, extending the control of the British into the hills. Administratively, the Garo hills were a district under an Assam commissioner within the division of Bengal. Between 1905 and 1911 Assam was added to Eastern Bengal and formed into the province of Eastern Bengal and Assam under a lieutenant-governor. It became a separate governor's province in 1912. The Garo hills were first deemed an excluded area (as per the provisions of the Montague-Chelmsford reform proposal of 1917) and subsequently a backward area (following the Government of India Act 1919) with the nomination of a member representing the area in the Legislative Council. In 1935 according to Schedule VI of the Government of India Act 1935, the area was again declared a partially excluded area with limited franchise given to the headmen. In 1947 the Garo hills were included within the union of India as a part of Assam. By the provisions of Schedule VI of the Constitution of India, in 1952 the district was declared autonomous, under an elected district council, and universal adult franchise was introduced for the first time. In 1971, after the North Eastern Areas (Reorganisation) Act, the state of Meghalaya was carved out of Assam. The Garo hills became part of this new state.

The region forms a large, complex ecosystem in which various forms of production coexist with each other and with the forests as a whole. These activities include shifting cultivation, terrace agriculture, wet-rice cultivation, fishing, grazing, and hunting and gathering. Orchard and plantation cultivation are relatively recent additions. Over 80 per cent of Meghalaya's population is tribal.

Shifting cultivation systems exhibit continuities despite transformations attendant on a still circumscribed capitalism, expanding market economy and demographic pressures. While more land-intensive systems also relate organically to forests, shifting cultivation is more closely integrated with forests and has been called an agro-forestry system. Here, the agricultural system is characterised by continuous fields, which witness long fallow periods interspersed with shorter periods of cultivation, rotation of fields rather than of crops, mixed cropping, almost exclusive reliance on human labour, absence of artificial irrigation and most characteristically, firing of the fields before sowing. Long fallows and firing before cultivation are the two hallmarks of the system. Most shifting cultivators domesticate animals, tend tree crops, and gather and hunt. As with grazing, there are common misconceptions of the practice, where it is called 'roving' and 'nomadic' in a sense that erroneously implies that shifting cultivators have no notion of usufruct rights. Like elsewhere, there are varieties of shifting cultivation practices in the region, employing different techniques and varied fallow lengths depending on the locale and its circumstances.

The dominant perspective precluded policy makers from viewing *jhum* as legitimate form of resource use.<sup>2</sup> *Jhum* has at various points been the concern of the forest department, the tribal areas department and, since 1955, of the soil conservation department, whose primary concern has been to limit and control

he practice, as a prelude to 'weaning cultivators' away from it. At no point has it been on par with wet-rice cultivation, terrace, plantation or horticultural systems, or has it come under the direct purview of the state agricultural department. Officially, well into the 1990s, shifting cultivation has been regarded as a menace to be done away with, at best tolerated. The enduring image of the practice as inferior and wasteful, supporting an economy on the brink of impending collapse, became the justification for interventionism particularly in post-independence India.

#### ATTITUDES TO SHIFTING CULTIVATION

##### The Colonial Period

This section considers the broad processes within which the dominant attitudes to shifting cultivation came to be produced and articulated by individuals and groups who influenced policy. The dominant outlook, strands of which even had some sympathy for shifting cultivation, remained trapped within a limited and limiting framework from the 1850s onwards. The early observers of *jhum* found it strange, repulsive and fascinating all at once, to witness the destruction of commercially valuable timber by what seemed a primitive practice of setting fire to the jungle.<sup>3</sup>

The earliest accounts of *jhum* fall in either of two frameworks:

- 1 Shifting cultivation was a primitive and inferior system of cultivation that needed to be changed, even done away with. Baden-Powell's views expressed at a forest conference held in Allahabad in 1874 are a sample:

The fact is that the system is so wasteful that somehow or the other it must be put a stop to, just like 'suttee' or any other great evil. It consists in destroying a large and valuable capital to produce a miserable and temporary return. To put a stop to it, is only to anticipate by a few years, the natural determination of the system which will happen if the system continues long enough, because there will be no more forest to cut down and burn. The way out is to reserve large areas and prohibit *jhum*. Efforts should be made to change people to permanent agriculture.<sup>4</sup>

- 2 Shifting cultivation was seen as the response of a marginalised people to natural conditions, the termination of which would mean starvation.<sup>5</sup>

Both these generalised approaches were strong enough to preclude the need for, or the desirability of, distinguishing between the different systems of *jhum* or studying the principles of the system in earnest. On the one hand, if *jhum* was as much of an evil as *sati*, the question of 'improving *jhum*' did not arise, since by definition there could be no reformed version of either. On the other hand was the

view that *jhum* should be left alone since it was a matter of survival for those dependent on it. Neither approaches actually tried to look beyond the phenomenological, and so *jhum* was not really understood by policy makers in the colonial period, a lacuna compounded by the absence of a land revenue levy in the upland regions of north-east India. Empirical surveys on land use practices, productivity, soil types and cropping patterns were never undertaken in areas under *jhum*. Consequently, *jhum* as a practice tended to be captured through superficial and impressionistic categories.

*Forest Department* To begin with, the department's only concern with shifting cultivation was to control and limit the practice in the areas directly under its control (forest reserves). The official policy of forest use and the practice of shifting cultivation seemed systemically at odds. The department, determined to impose scientific and 'rational' forest management, banned shifting cultivation wherever possible. The justification of reservations was on the ground of arresting degradation of forests. In Assam, as elsewhere, the department viewed fire in the forests with some horror. *Jhuming*, along with grazing and burning the forest, remained the bane of the forest department. In the annual progress reports of the forest department, firing due to *jhum* and grazing ranked on par with insects, pests and disease, which caused 'injuries to the forest'.<sup>6</sup>

While settling forests, the department proceeded on the assumption that shifting cultivators were migratory and nomadic, and lacked defined notions of territoriality. It was believed that the *jhumias* would be displaced only temporarily as a result of reservations. Deprived of access to parts of the forest, they would simply move elsewhere and resume their practice of slash-and-burn. In forest working plans, when fresh areas were reserved, *jhum* areas did not fall within the ambit of 'rights of the population', and hence were not required to be compensated for by the department. By administrative fiat, hill and forested regions became government property and proprietary rights were conceded only to 'permanent cultivators'. Only they were paid compensation.

In the early years of state forestry there are few recorded instances of organised protests on the part of the cultivators, perhaps because productivity crises, arising from demographic pressure on shrinking arable, had not begun to manifest themselves on any significant scale. Subsequently, protests of surprising intensity were expressed through different modes, ranging from outright refusal to surrender lands for the creation of further reserves even after being compensated, petitions organised movements (Sonaram Sangma's agitation, 1904 to 1912)<sup>8</sup> and request for the dereservation of some forest tracts. These protests led to an official examination and recording of existing rights over land in the Garo hills, and the enthusiasm for demarcating 'reserves' waned in the region.

'Primitive', 'irrational' and 'short-sighted' *jhum* was contrasted with rational scientific, long-term state management of forests. The non-reserved areas were designated 'unclassed forests' where shifting cultivation was permitted.

On the subject of highlands in the Jaintia lands I have the Honour to bring to your notice that although the Chief Commissioner permits Syntengs to carry on shifting cultivation in its highlands without payment, it would not permit any permanent occupation of such land or admit the growth of private rights in them or pay compensation if such land was taken up for any purpose.<sup>9</sup>

Shifting cultivators vigorously contested the proprietary claim of the government. The sub-divisional officer of Jowai was surprised by the flood of petitions from shifting cultivators claiming private proprietary rights.

It does not appear from the sub-divisional office records that any special notice or proclamation of any kind has been issued to the people on this point. . . .

In 1887, certain inhabitants of Satunga who had been jhumming on the borders of the Saijung reserve forest were ordered by the then SDO to cease further operations until the boundaries of the reserve forest were demarcated. Upon this a number of petitions were filed by the people of Satunga claiming private rights in the land where they jhummed.

The people of the affected area produced sale deeds claiming rights to the land dated before 1885, the year the order claiming all highland belonged to the government came into being.<sup>10</sup>

The government's claim to proprietary right over such land arguably redefined to some extent the notions of rights to land among the cultivators in Satunga. They also began using the coloniser's language of proprietary right.

By the turn of the century ideas related to 'ecology' and management were incorporated into the rhetoric of the forest department. The colonial administration aimed in political confidence in the upland regions of the north-east. The importance of timber and commercial forest produce in the imperial war effort lent an aggressive thrust to state forest operations. Finally, in a parallel movement, there was the subtle but emphatic shift away from the forest department's pursuit of purely exploitative and commercial interests (albeit in a utilitarian sense: the greatest good for the greatest number for the longest period). The new emphasis on the role of forest management was in the prevention of deforestation, deemed to be the single greatest cause of floods, soil erosion and disturbance of the water-table system. This lent an immediate and practical aspect to state forest operations and undoubtedly gave it credence. Influenced by the concept of climax vegetation in biology,<sup>11</sup> state forestry aimed at minimising irrational interference (usually by human actions), which would arrest the development of species. Forest management was simply to aid natural processes. However, this rhetoric did not seem to interfere with the plantation of purely commercially valuable species. In fact the rhetoric was deployed to justify commercial plantation on the grounds that these operations afforested lands that might otherwise have remained unforested.

Commercial forestry of this nature required labour. Both due to local protests and international outcry, the existing regimes of labour such as *begar* or impressed

labour were no longer feasible on the same scale. Therefore, a new system of labour management had to be devised. The fact that prior to 1900 the negative attitude to firing in the forests had changed to a recognition of its benefits, proved to be handy in securing the necessary labour. This was done by assigning *jhum* plots to cultivators in forest reserves on condition that they planted and tended commercially valuable trees on these plots. Thus, *jhum* from having been an unequivocal vice became a tolerable practice, particularly so under controlled and modified forms that would also meet the labour requirements of commercial forestry in an overall climate where the scientific forestry community had come to revise its views on the effects of firing on forests. People who had once been ousted from the forest when reserved areas were demarcated were brought back into these policed reserved areas as cultivators labouring for the forest department.

The conversion to the merits of controlled firing came about with the successful incorporation of shifting cultivation in British colonial forestry in Burma.<sup>12</sup> This was known as the *taungya* system and was extended to parts of British India including Assam, where it continued until 1969 and was actively used for forest 'regeneration'. It seemed to solve several problems all at once: management of labour, and the need for regulated firing, supervised planting and careful tending of tree saplings, especially in the first few crucial years. In the north-east it could only be attempted in the reserved forests. The department could not extend the ban on *jhum* to the unclassed forests, the other category of forests, mainly for political reasons. Too many people depended on this form of agriculture (Stebbin 1926: 218). *Taungya* rendered shifting cultivation a supervised caricature of its former self. The point is that people often confuse *taungya* and *jhum*, while *taungya*, as used by the department, entailed shifting cultivation procedures, it was vastly different from shifting cultivation as *jhum*.

A working plan from 1921 explains the principles of *taungya*:

Jhumias are required to plant stakes in lines in *jhum* fields after they have been burnt, at a distance of 24 feet apart with the distance between each stake to be 2 feet. At each stake, many trees were to be planted. Under the scheme *jhumias* had to cultivate for 2-3 years in succession according to the fertility of the soil. . . . [T]he *jhumers* were under obligation to cherish such seedling as came up, and to resow blanks, so long as they were cultivating any piece of ground, and to free the young plants from oppressive jungle in the abandoned portions, until they were out of danger.<sup>13</sup>

The conditions of work combined with the general repression in the forest reserves made *taungya* an exploitative system strongly resented by the cultivator ('labourers' would be a more suitable term). Forest officials closely monitored the entire operation, including choosing the sites for the year's cropping and stipulating rigidly the distance at which tree saplings could be planted in the *jhum* field. Cultivators, besides tending to their crops, had to attend to tree saplings, the belief being that weeding, protection from animals and tending would give the

saplings a fighting chance. Punitive measures were taken if any sapling perished.<sup>14</sup> 10 years later the officials would choose another area for cropping and the cultivators had to resume the process at the next site. In the early years, when foresters are experimenting with the cultivation of species in the region, some experiments failed and the plantation failed to take off. Cultivators then had to replant the all-wood plot with a fresh crop of trees while simultaneously cultivating the fresh lot, the two areas often not being contiguous. What this implied for the *jhum* crop is not difficult to imagine. Shifting cultivation was rendered a caricature to benefit the department, at the cost of the cultivator-labourer:

Interestingly, there is evidence of wet-rice (*chan kheti* or *apah*) cultivators being taught the principles of *jhum* by the forest department. In the Angratuli Forest Reserve, Garo hills, in the 1920s, the first *taungya* cultivators were immigrants from the neighbouring Mymensingh district of Bengal. The system worked to the benefit of both cultivators, given the scarcity of cultivable land, and the forest department, in need of labour. Realising that in fifteen or twenty years the entire reserve would be covered with valuable tree species (which would eventually result in their eviction), the cultivators began demanding the grant of plain land in the reserve for the purpose of wet-rice cultivation. This was granted by the mid-1940s. The system worked wonderfully well for the department, which managed to convert large amounts of forest land into commercial stacks of trees. It efficiently and economically solved the problem of labour by converting agriculturalists into a proletariat totally dependent on the forest department for its subsistence (Peluso 1992: 64). The government was forced to end the system in 1969 in Assam due to opposition from the members of various elected bodies of the state.<sup>15</sup>

*Taungya* plantation was largely successful from the foresters' point of view, given the absolute degree of control they could exercise on the labour that cultivated their own crops (mainly food) in the same site. The method was called 'easy, heap and certain',<sup>16</sup> notwithstanding the costs of supervision. Foresters I met during fieldwork said that *taungya* plantations were 100 per cent successful, whereas plantations by paid labour met with varying success. The cultivator-labourer was completely dependent on the armed forest department. He could be arrested at any point for unsuitable conduct. Given the conditional nature of the tenure, any formal unionised activity was not possible.

The forest department could afford to postpone its agenda of social forestry here *jhum* was concerned. Furthermore, since it was concerned with *jhum* only to the extent of either ignoring it (in the unclassed forests), using it or banning it, there was little interest in developing the practice. There was no scope for 'reforming' the *jhumias* or their practice, and consequently there was little need for the forest department to 'know' or familiarise itself with *jhum*.

*Christian Missionaries* Christian missionaries, by definition, had to 'know' their flock. As it happened, they lent authority to and reinforced many of the dominant perceptions about shifting cultivation. More directly, through their initiatives in the field of formal education, missionary presence in the region proved

significant. Paternalistic pedagogic activity had two implications. The first was less direct and affected the ethos and world-view of the 'converted'. More directly, time spent at school meant both time away from the field as well as the practical demonstration of alternative ways of living. This helped the educated to imagine a future different from the one they had been socialised into expecting. New possibilities seemed feasible. A retired deputy commissioner of the Garo hills wrote

The general tendency of the Garos is to migrate to the valleys and plains as education spreads because the irksome and continuous hard work needed to exist in the hills on *jhums*, dependent so much on the whims of seasons, does not appeal to the softened Garos, both male and female, mostly educated in American Government schools.<sup>17</sup>

While we may question his presumptions, there does seem to be a link between Christianity and the suspension of *jhum*. A half-century later, my informants in Chandigre village refused to accept the possibility of the existence of cultivator who cultivated by methods other than shifting cultivation. (When I insisted that it was a fact, I was told that it must be the practice of villagers who were 'Christian and educated'.) However, wet-rice = Christian and *jhum* = animist does not capture reality either, as Agarwal (1994) seems to imply in her study.

Some missionaries viewed shifting cultivation with revulsion. William Carey, a prominent missionary, described a *jhum* as a 'very repulsive sight, with its rotting and half-burnt stumps of trees standing against the sky, and the crop struggling with the weeds of the jungle' (Carey 1919: 19).

Missionaries denigrated the entire sum of tribal life-material, cultural, ideological and social. The early converts among the tribals were proselytised into novel way of living. The prodigious use of rice and money after the harvest was seen as a waste. The rites, rituals and sacrifices of the cultivators, an integral part of cultivation itself, were regarded as 'propitiating spirits', a practice born out of ignorance and superstitions (ibid.). Converts to the faith were expressly forbidden from drinking *beetchi* (fermented rice brew), dancing or participating in agricultural rites and ceremonies. This was ostensibly to show their difference from the unconverted, the pagans. Further, strictures and censures were passed on those who were seen as 'morally lax sexual mores and dresses'.<sup>18</sup> This marked the end of the self-evident world of shifting cultivators. Detailed research is required as to whether there was no effective challenge to the missionary deprecation of Khasi, Jaintia and Garo societies.<sup>19</sup>

*Civil Government* The civil administration on the whole adopted an ambivalent position towards shifting cultivation. From the legal aspect, the areas under shifting cultivation were subject neither to direct colonial authority nor to its land revenue impositions. The civil and district authorities were solicitous of the seemingly 'wasteful', 'unscientific' and 'crude' methods of cultivation. To bring about 'reform', it was incumbent on the district administrators to comprehend the rudiment

of shifting cultivation. In any case, direct prohibitive action on *jhum* was not feasible for the civil administration. This stood in sharp contrast to the more interventionist policies of the forest department in the same period, a difference in approach that found expression in the records and led to a certain amount of tension between the two departments. The SDO Jowai wrote to the deputy commissioner of Khasi and Jaintia hills:

Of course it will be argued that *jhuming* is a wasteful and unscientific method of cultivation, but I fail to see that it does much harm in the Bhui country. . . . The forest department would no doubt keep trees till they rot rather than allow *jhuming* or let the trees go for less than the prescribed royalty, but in the Bhui country forests which contain first class trees are very few and far between and when such forests are discovered their commercial exploitation is rendered impossible on account of their inaccessibility. *Jhuming* is not wholly unreasonable and with ordinary care it can be continued indefinitely, and land will be again ready for *jhuming* 10 or 12 years hence. In these circumstances, I am not in favour of adding 'thou shalt not *jhum*' to the M'kir decalogue. The forests were made for man and not man for the forest.<sup>20</sup>

This empathy did not imply that the civil administrators accorded a respectable status to shifting cultivation. Efforts to encourage *jhumias* to take to wet-rice and plough cultivation began from the nineteenth century itself. In some recorded instances cash incentives were given to cultivators to construct terraces for intensive and continuous cultivation.<sup>21</sup> In addition, revenue waivers were given to cultivators on settled land for what was referred to as 'ordinary' cultivation.<sup>22</sup> The civil authorities inferred a direct relationship between the splitting of villages, a dispersed settlement pattern and rapid soil exhaustion. Their notion was that due to an unfavourable land-person ratio, fallow periods shortened, which led some cultivators to shift their settlement site and cultivate elsewhere. So a shift in settlement was an indication of soil exhaustion.

This connection was established a priori without ascertaining the link between landholding and the fallowing cycle. This supposition exists to date, and the regrouping of villages has been on the 'development' agenda ever since. The American Baptists associated themselves with efforts to regroup villages, which, it was presumed, broke up on the feeblest provocation.<sup>23</sup>

Officials on an individual basis undertook the task of introducing improvements in shifting cultivation. Encouragement was given to the planting of fast-growing tree species, especially on hill slopes where the soil was particularly prone to erosion. As a corollary, the district administration prohibited *jhum* on hill tops. Trees were planted on fallow plots (referred to unimaginatively and rather typically as 'wastelands').<sup>24</sup> Political conditions in the 1920s and 1930s curtailed endeavours to intervene more explicitly in controlling the *jhum* cycle or to prohibit the cutting of commercially valuable species while *jhuming*. Officials also introduced the cultivation of several new crops: potatoes, oranges, pineapples, and

ginger, to name but a few. The crusade to intensify cultivation and thereby increase the value of the output was helped by the Christian missionaries. Each mission compound had its own orchard as a demonstration of possible alternatives to shifting cultivation.

These efforts, made through education, intensified in the post-1930s period. The context of the measures became far more complex as several new variables entered the picture, significantly the process of 'democratisation', which accompanied the 1935 Government of India Act. The districts of Khasi and Jaintia, and the Garo hills were designated 'Partially Excluded Areas' even while they were allowed representation in the Legislative Council. Concurrently, debates at the central level focusing on the 'future of the aboriginal' were to influence policies and shape attitudes in the north-east. The dispute was between the 'isolationists' and the 'assimilationists' who differed in their perception of the role and position of the tribals in emergent notions of Indian nationhood. The situation at the regional level defied simplistic analysis. On the whole, there was unanimity that intervention of some sort was required. The contours of actual intervention were influenced by considerations of political feasibility. The policies of this period anticipated those of the subsequent period in this region. As noted, the policies and dominant ideas were based on an as yet uninformed and tentative view of shifting cultivation. There was no rigorous or scientifically conducted research on the different kinds of *jhum* or on the conditions under which it was counter-productive and detrimental to the environment. The conclusions about the problems of shifting cultivation were received uncritically by generation after generation of policymakers.

At variance were the views of the missionary-turned-social-worker-turned-anthropologist-turned-policy-maker Verrier Elwin, who finally became advisor of tribal affairs in the North East Frontier Agency (NEFA) in post-colonial India. Elwin felt that, in sum, civilised society had more to learn from tribals than the other way around. Elwin defended the practice of shifting cultivation from its sternest critics and while one may, with the hindsight of over half a century, find much that is conceptually flawed in Elwin's writings, the significance of this defence at that point of time cannot be overstated (Elwin 1939/1986: 100-118). Subsequently, he advocated a policy of positive intervention given the inevitability of larger processes affecting the tribals. According to Elwin, this entailed using science to help the tribals without destroying their culture. How change could be effected in one sphere of society without influencing the others remained unexplained even as it contradicted the basis of the functionalist analysis he employed with respect to tribal societies. At the political level, in the north-east, Elwin's ideas became vulnerable to charges of 'idealism' and 'promoting separatism' levelled sometimes by the upper echelons of tribal society.<sup>25</sup>

In the 1940s the exigencies of the Second World War, the Bengal famine and the increased frequency of floods in the Surma and Brahmaputra river system led to a revitalised effort to increase food production through 'scientific and rational means', entailing an intensification of cultivation. The campaign of the day was 'Grow More Food' and the *Assam Tribune*, a leading English newspaper

ublished from Guwahati, was full of reports on the progress of the campaign. His campaign synchronised with a shift in ecological ideas. The concept of the climax vegetation community, restricting the role of humans to managers, had given way to new ideas centred around agronomic efficiency, productivity and enhanced yields. Technological and institutional changes were seen to lead directly to enhanced productivity. The land area was constant and the number of people varied, which meant that land was to be used in a rational manner according to its capabilities. Such a perspective led to a new interventionist thrust by the state and was compatible with the precepts of central planning and governmental initiatives, and reforms, technology transfers and education were the pillars of this approach. On an individual basis, district-level officers tried to improve the productivity of output, without effecting dramatic changes in the system, through the introduction of new implements, a change in sowing and cropping practices and so on. Donald, the deputy commissioner of the Garo hills in 1941, wrote vehemently:

Unless someone takes a Garo village and insures it against the famine that would be the natural penalty for the failure of any agricultural experiment, and then finds out by actual trial and error how the Garos can continue to live and even to multiply and yet to stop the processional deterioration of their land, I doubt of all the ink we sling and all the gas that we talk, whether we call ourselves 'Agricultural Department' or 'Forest Department' or 'Civil Authority' will avail to change the main body of Garo agricultural custom by as much as zero per cent in a hundred years.<sup>26</sup>

Evidence of declining yields was collected from the Lashkars, the revenue collecting officials in the Garo hills.<sup>27</sup> Efforts were also made to educate cultivators in other ways, such as the benefits of planting quick growing tree species in fallow plots in order to fertilise the soil faster.<sup>28</sup> Demonstrations on terrace cultivation are held in plain areas and in the flatter terrain in the hills.<sup>29</sup> There were efforts to encourage cultivators to plant *arhar* (legume) seeds to fertilise the soil in fallow fields<sup>30</sup> and to control the burning in the cultivated fields.<sup>31</sup>

The opinion-making and policy-shaping strata in these regions were enthusiastic proponents of the mission of the period. *Jhum* came in for much attention.<sup>32</sup> The pedagogic process had instilled a lasting framework for looking at shifting cultivation. The democratic process in no serious way challenged the existing views, which were strengthened when they found practical enactment in policies. The bureaucratic process ensured the practical space within which shifting cultivation was carried out. The proceedings of the Hill Officers' Conference in Shillong and various statements of ministers bear testimony to this.<sup>33</sup>

The perceived choice was between terrace and shifting cultivation, and it was with a degree of condescension that nineteenth-century ideas were reiterated in making a case for the continuation of *jhum*, employing the familiar argument of cultivators *jhuming* in order to survive, of the limited availability of flat lands for terrace cultivation, and of the enormous costs of constructing terraces in the

upland regions. Given that reasoning, it followed that force or coercion could not be employed in the matter. The tone of the divisional forest officer (DFO), Garo hills, on the observations of the minister, Nichols-Roy, was characteristic. Acknowledging the fact of drying up of rivers and the deterioration and denudation of soil in the Garo hills, and conceding the minister's attribution of these to shifting cultivation, the DFO went on to say:

You sir, can appreciate the fact that nothing can be done by force or by order in these hills. It is only by education, kindly advice and demonstration, that we can gradually organise jhuming and afforestation so that this may be practised with the minimum detriment to the soil, and the people themselves as well as to the surrounding plain's population.<sup>34</sup>

This emphasis revealed the rather unique situation of shifting cultivators in the region. Their counterparts in central India were subject to far more stringent controls besides having suffered colonisation in many guises before they had first encountered an English face through the expansion of the arable, and the resultant clearing of forests which was part of the process of state formation.

#### *The Post-colonial Situation*

The post-1950 phase marked, in several senses, an accentuation of the tendencies outlined in the previous section. The denigrating ideas regarding shifting cultivation became entrenched, reinforced and legitimised in the institutionalised intellectual and political arenas. The inculcation of these beliefs in the publicly articulate spheres of society simultaneously served to undermine the 'native', 'traditional' 'practical' knowledge and values with respect to shifting cultivation. The dominance and continuity of entrenched beliefs was assured. Social and political equations combined with material conditions to ensure that these ideas were easily absorbed. This section sketches the processes at work at the global, regional and local levels from the 1950s onwards.

The aftermath of the transfer of power was marked by the extraordinary confidence about the role of central planning in development tasks. Two trends coalesced in the early 1950s:

- 1 An overwhelming concern with the progress, development and garnering of the resources of the nation.
- 2 A policy of institutionalised protection and the provision of some measure of 'autonomy' for the hill tribals of the region through Schedule VI of the Indian Constitution, which provided for the formation of the 'autonomous district councils' in specified regions of north-east India. The Khasi and Jaintia, and the Garo Hills Autonomous District Councils were formed in 1952.

The dominant approach of the period was on the whole geared towards the large-scale transformation of shifting cultivation from a system based on the principle of simple reproduction to a capitalist system based on yielding a marketable surplus and guided by the profit motive. That this transformation has not occurred long anticipated lines reflects a sustained lack of correspondence between the expectations (needs, objectives, values and principles) and compulsions of those who participate in the subsistence economies and those of the planners at various levels. Dominant ideas about the system of shifting cultivation belonged largely to the mechanical and reductionist frameworks of either the livelihood imperative or the cultural imperative. The failure of various government schemes may be attributed to this lack of correspondence. Faced with the prospect of falling yields and a none too reassuring future, some shifting cultivators accepted these schemes and absorbed aspects of these into their own production process.

A grand state initiative, the 'Jhum Control Scheme', was launched in the region in the early 1950s. This followed the visit of a study group of senior forestry and agriculture experts, working in collaboration with the Food and Agriculture Organisation (FAO) in north-east India. This study was part of a global initiative on shifting cultivation. The FAO's concern was (and still is) to enhance food production and food availability in the world, and to concentrate on the underdeveloped regions (developing regions) as part of the global post-war peace programme. This concern stemmed from the apprehension that food production could not keep pace with the growth of global population. By the 1940s the sombre Malhusi argument had given way to optimism about the role of technology and innovation in production. This promising shift had far-reaching implications for policy measures related to agriculture in the developing parts of the globe. There was a confidence in the intensification of production through the adoption of sophisticated technology and improved know-how. This could be the solution for the growing population pressure, which, it was felt, had simultaneously to be reckoned through the introduction of population control measures. In this context, the view of *jhum* being a way of life and a mere response to the environment could not hold. Now there was the assurance that science could intervene in reducing human dependence on the natural world. This resulted in a profusion of programmes aimed at suitable intervention, the focus being the dissemination of suitable technologies and knowledge about scientific and rational land-use strategies in the countryside. Once this leading agricultural organisation had accepted that shifting cultivation was an alterable system, the earlier indulgent attitude towards *jhum* was abandoned. These shifts further eroded the legitimacy of shifting cultivation and denied the possibilities of state intervention to improve the system from within. To that extent, it was seen as a 'backward' system of cultivation corresponding with the general backwardness of the people who subsisted on it. Experience at global and local levels seemed to have inspired the conviction that only a paternalistic approach resting on gentle persuasion and education would deliver the results that coercive methods could not.<sup>35</sup>

The FAO-backed team was to investigate the 'causes and conditions of shifting cultivation on the basis of which remedial action could be taken to raise the level of the agricultural system and to control *jhum* in the best possible manner'.<sup>36</sup> Each 'interested' government in the tropical areas was asked to submit a similar report on the 'status' of shifting cultivation in its country.

The Assam tribal area department took great interest in the initiative. The desire for 'special expertise' on matters relating to soil conservation prompted the creation of a separate department of soil conservation in Assam. Soil conservation became synonymous with '*jhum* control' in the region. *Jhum* came to be referred to as 'roving agriculture' and the aim of the state in this respect was to 'wean away the *jhumias*' to more land-intensive techniques. The qualities associated with *jhum* were anathema for the 'development set' of the 1950s. These included the absence of marketable surplus, savings and hence of investments, the waste of whatever 'surplus' they were accruing in ritual feasting. Old and pejorative epithets such as 'destructive', 'primitive', 'uneconomic', 'inefficient use of land and labour', 'nomadic', and 'insufficient output' continued to be employed, and the system's reliance on human labour unaided by modern technologies was seen to be its principal weakness.<sup>37</sup>

The other worrying aspect of shifting cultivation for policy makers was the dispersal of villages, which was believed to be the direct outcome of land-use patterns. Villages were seen to have broken up to enable inhabitants to reside near cultivation plots. This is, however, far from ever having been uniformly an conclusively the case. Villagers are known to have shifted out because a particular site was 'unlucky' (*marang*), a belief prompted by recurring illness or sustained crop failures even after the propitiation of the spirits responsible for these maladies. However, scattered villages, each populated by a few households, were seen to pose particular problems for village-level development work. The preponderance of small villages in the Garo hills is represented by Table 1, showing the number of villages by the number of households.

Villages were located at a distance from each other, isolated and difficult to reach, and were seen to be shifting constantly, making development and extension

Table 1  
Number of Villages and Corresponding Households in the Garo Hills

Household range	No. of villages	Total (%)
1-10	544	22.41
11-20	729	30.04
21-30	431	17.76
31-40	260	10.71
41-50	132	5.44
50 and above	331	13.64
Total	2,427	100.00

source: 'Regrouping of Villages in Garo Hills', MAG 3/72, p. 1, para 3 (MSRR).



work difficult. It was decided that villages were to be regrouped at a chosen 'permanent' site to reduce pressure on the soil and to facilitate development infrastructure like electricity, water, schools, dispensaries and post offices.<sup>38</sup> The principle behind the venture was to 'settle' the cultivators and then develop them. 'Regrouping villages is necessary if Garo Hills and its people are to be brought into the national mainstream.'<sup>39</sup> In practice the scheme failed to make much headway in the region.

Once the initiative for 'reform and transformation' shifted focus from the sketchy attempts at the district level to the elevation of shifting cultivation to the status of global problem at the national level, stereotyping of the 'primitive' increased and, unsubstantiated observations such as the following one were common:

The Garo villager is so poor as to use a costume which is barely adequate to be compatible with decency. . . . He eats the flesh of almost any animal, domesticated or wild that he can get. He cannot take milk.<sup>40</sup>

Clearly, the shift in the locus of policy making had widened the gulf between the state and the shifting cultivators. The system itself was referred to in apocalyptic terms like 'suicidal'. So fervent was the effort to 'do something' that *jhum* was equated with diseases like cholera and malaria, which had to be eradicated for progress in the region to occur. Physical distance from the centre and ethnocentrism rationally mediated policy during the 1950s and the 1960s.

That such views were not confined to India is suggested by the FAO study by Watters in 1971.<sup>41</sup> Watters identifies technical, economic (lack of capital) and social (institutional) obstacles to the increase of agricultural output, and the need for replacing 'traditional' and extensive methods of land use with 'modern' methods of agriculture and the introduction of intensive methods of cultivation.

The persistence of this practice to the present day in wet tropical countries is explained by the ecological conditions of these regions. But it is also to a large extent the manifestation, or the result of the technological and social backwardness (and often of both) of the countries where it is practised. If no attempt is made to attack the cause of such persistence, or at least those conditions which it is physically and economically possible to remedy, shifting cultivation could easily become a major obstacle to economic development, checking still further the progress of those countries which have, for too long, tolerated its existence. (Watters 1971: 26)

The opinion of the regional intelligentsia, which can be gauged from newspaper reports in the English language press and from Legislative Assembly debates, attached this spirit. The regional elite shared in the meta-vision of forested hills, intensive cultivation and 'economic progress' in the region. They desired a reduction in the area 'affected by shifting cultivation'. Williamson Sangma, chief executive member of the Garo Hills District Council, singled out *jhum* as being one

of the main problems of the district.<sup>42</sup> Lyngdoh, member of the Assam Legislative Assembly, remarked in the debate following the governor's address:

The old method of cultivation is continuing in villages of our state. This is enemy number one to the forests. I have seen in many of the villages the indiscriminate cutting and felling of trees for the sake of *jhumming* cultivation. This method of cultivation if it goes on will destroy forests and food production and lead to soil erosion. Government should stop this and encourage people to adopt the new methods of cultivation. (Lyngdoh 1971: 19)

What the educated, opinion-making and privileged segment wanted did not deviate significantly from the national mainstream understanding of the 'problem'. This offers insights into the ideology of the movement behind the demand for separate state of Meghalaya to be carved out of Assam. It did not envisage a radically different development path. The demand was for a special effort in the progress of the region, which, it was perceived, was being neglected by the mainstream Assamese elite. The new state, comprising the Khasi, Jaintia and Garo Hills districts was created under the provisions of the Assam Reorganisation Act of 1969. It was an autonomous state from 2 April 1970 to 21 January 1972, after which it became the twenty-first state of the Indian Union. Meghalaya took up the question of shifting cultivation in earnest.

At the national level this was the period when the Congress Party under Indira Gandhi raised the slogan *Garibi hatao* (remove poverty), a component of which was self-sufficiency in food grain production. Increased food grain production was to be ensured through the provision of irrigation, fertilisers, high-yield varieties of seeds, multiple cropping and encouragement of subsidiary programmes like animal husbandry, horticulture and support to cash crop production wherever feasible.

In Meghalaya, the '*Jhum* Control Scheme', under which demonstration farms were set up, was launched in 1974-75 to 'resettle' farmers. Again, the progress of these efforts figured in Legislative Assembly debates. In addition, the *Report of the National Commission of Agriculture, Volume IX*, contained specific guidelines for policies relating to shifting cultivation in the north-east as a part of its 'strategy of agricultural development in hill areas'.<sup>43</sup> The guidelines recommended horticulture and pasture development on the hill slopes and food crop production in the valleys and on terraced farms on slopes. It was suggested that cultivation patterns should take environmental factors into consideration. Finally, the report went on to say that shortfalls in food grains should be met as a 'national responsibility' from other parts of the country, ending on a contradictory note: 'However, in view of the transport and communication difficulty, production in the north-eastern region should preferably be planned for food self-sufficiency.'<sup>44</sup>

Given the grandiose nature of transformation intended, officials were sceptical and the report resulted in a flurry of correspondence at the state level. It was

never, decided that given the inclusion of the last sentence, the recommendations of the commission could not be followed to the letter.<sup>45</sup>

This was all happening at the level of policy formulation. On the ground the political situation militated against the adoption of coercively interventionist measures against shifting cultivation.<sup>46</sup> *Jhum* cultivators lobbied for government relief when crops failed due to technical problems.<sup>47</sup> With the creation of the autonomous district councils, the 'unclassed state forest' areas came under the direct control of the councils, working in association with the soil conservation department. Technically, the council had the power to extensively interfere in and control *jhum*. For instance, the Garo Hills District (*Jhum*) Regulation Act, 1964, provided for the 'regulation' and control of *jhum* or other forms of shifting cultivation. Its provisions included the prohibition of *jhum* in certain areas (near roads and rivers, on very steep slopes, in areas covered by *sal* and other commercially valuable species, and village forests). The council could fix the minimum allowance for cultivation and take measures for the recuperation of soil in the fallow land for the introduction of terrace cultivation and horticulture. Along with these came the right to enforce a penalty in case of contravention of any of the provisions of the regulation.<sup>48</sup>

In practice, being an elected body, the council interfered minimally in *aba-oca* cultivation in the district, which continues to be practised on steep hills, in flat areas, near rivers and at a distance of not less than 10 metres from 'black top' roads. The soil conservation department works quite independently of the district council. It acquires land directly from the *nokmas* for its various projects. This and continues to be *akhing* or clan held, with the elected *nokma* in charge. The soil conservation department has to work entirely by persuasion and 'education'. Sometimes it offers cash payments for plantation works. This has resulted in a not favourable image of the soil conservation department in the shifting cultivation regions, in sharp contrast to the image of the forest department. The absence of direct control or a generalised prohibition of cultivation in this region ensured that cultivators were saved the experience of cultivators in central India and other parts of the subcontinent. For the schemes, part of the *akhing* is handed over to the department that supervises plantation ('social forestry') and horticultural work on the land, and the hiring of villagers as labour (ostensibly to 'emotionally integrate' them with the projects). The department finally hands over the plantations and orchards to the villagers after ten and five years respectively. The soil and forest departments realised that the popularity of these schemes was a direct consequence of their labour intensity, which generated employment and supplemented household incomes.<sup>49</sup> It would be fair to suggest that the schemes were taken up by those villagers who felt that their lot would improve by going along with the soil conservation department.

State forestry was concerned with shifting cultivation since it was as much a system of forest use as it was of land use. The forest department imposed sanctions, which were not legally or coercively enforced, in contrast to the early years of state forestry when forests were being reserved. The guidelines of the National

Forest Policy of 1951 emphasised the need for forest cover for the hill regions given their susceptibility to soil erosion, and recommended that ideally 33.5 per cent of India's land area should be under 'forest'. Further, most of this proportion was to be met through forestation of the hills, which had to have a minimum of 6 per cent of area under forests. By definition, 'forests' referred to an 'area under permanent forest cover', which in turn meant reserved forests. Against this target it was discovered that 'forests' (that is, either forest department or district council reserves) in Meghalaya made up only 7.9 per cent of the total area in 1970. This technical definition of inadequate 'forests' lent credence to the general fear of 'deforestation in the hills'. Naturally, shifting cultivation rather than commercial forestry was singled out as the prime culprit, since it entailed what was called 'indiscriminate felling and firing of trees'. Unplanned forest use of the *jhumias* was contrasted with commercial forestry operations, conducted under what was seen as the able management of the forest department.

Another shift in the agenda of state forestry concerned its stated objectives from 'scientific forestry' to 'social forestry', and with it an emphasis on the regulative and protective function of forests rather than on their commercial worth. This implied in turn a shift from the punitive and legalistic attitude to shifting cultivation. Perhaps this change was one of nomenclature and strategy, not one of substance. This complemented, and perhaps resulted from, the increasing focus of state forestry on 'conservation', rendering the earlier cruder commercial thrust of its working far more 'social', and therefore more palatable. With 'social' (and more recently 'community') forestry, state forestry is endowed with an image of respectability and acceptability that does not enthrone critical comment. Social forestry combined several benefits. Forest cover could be expanded, cultivators' incomes supplemented and employment benefits for villagers generated. Beside these laudable intentions, the scope for upward mobility within an otherwise circumscribed forest department could be ensured.<sup>50</sup> Fundamentally, however, this shift in image did not amount to much. The forest department and the district councils were at odds, the former mistrusting the latter regarding the protection and conservation of forests.

The myth about shifting cultivation became a reality and was institutionalised through policy measures. The efforts of the state and the intelligentsia were directed at the conversion of barren land into forests and controlling the 'enemy number one' through various methods, direct and hegemonic. These methods were not without grand success. *Jhum* 'control' efforts in the post-colonial era are evaluated later.

*Jhum Control Efforts* In the early post-colonial period the government introduced plantation crops like rubber, coffee, black pepper and cashewnuts, and encouraged the cultivation of horticultural crops such as oranges, peaches, pine apples and bananas to help shifting cultivators switch to cash crops, at least partially, so that they could augment their incomes. This was accompanied in the 1970s by a concerted, centrally-sponsored soil conservation scheme in each state of north-east India. Under the scheme, pilot projects for the control of *jhum* and

iver basin schemes were started under the North-East Council Plan in 1974–75. In the early years in the Khasi, Jaintia and Garo hills, dry terraces (with contour bunding) and wet-rice terraces (with irrigational facilities) were tried in several areas. By 1983, of the 3,000 families under the project, only 150 had given up *jhum* totally (ICAR 1983: 31).

Between 1960 and 1970 'jhum colony schemes' were implemented in the north-east hill regions. These met with little success for reasons to be discussed later. Other schemes included conservation measures: 'mechanical' (terracing, bunding, fencing, stream and river bank erosion protection, dams, contours, strip cropping) and 'vegetative' (horticulture and cash crops on mid-slopes, afforestation on steep slopes and barren land, and agrostological, that is, planting grasses and legumes to feed cattle). Related measures included land development research, education and training (a training institute was set up at Bumihat). The aim of 'checking erosion and degradation of soil and the utilisation of land, water and vegetation on a sustainable basis with maximum production and minimum hazard to resources' was to be met by the simplistic Indian Council of Agricultural Research (ICAR) model, in which the hill was to be divided into three portions: the top most as to be under 'forests', the middle third under horticulture and pastures, and the bottom under 'permanent cultivation' with terraces where food crops and fodder would be grown. These programmes that tried 'knocking off *jhum* cultivation' and to 'wean the cultivators from *jhum*' were not successful.

The reason the cultivators agreed to participate in these schemes was not because of a transformation of their ethos, which has remained by and large subsistence oriented. Production was still on the basis of simple reproduction, that is, the production of goods (material and symbolic) which enabled the community to subsist and to reproduce itself biologically and socially, and along with this, to reproduce those beliefs and values that cohere the community and give it its identity. Cash crop cultivation, horticultural or plantation, where taken up, did not result in their transformation into capitalist farmers, producing purely on the basis of the profit incentive and principles of extended reproduction. The acceptance of the schemes was usually linked to the shifting cultivators shoring up their subsistence bases in the face of declining yields. Instructive is the nature of the incorporation of cash crop, horticulture and forestry into the subsistence system of *jhum* as a result of government efforts.

The cultivation of cash crops, which had necessarily to be sold, and which were not for immediate consumption, required a different ethos and conception of the future. A certain amount of planning, different from that under shifting cultivation, was required. By itself this transformation need not be an insurmountable hurdle. In the Garo hills, in the early years, the adoption of cash crop cultivation as an attempt to augment subsistence with the wages given by the soil conservation department, before the plantations and orchards were handed back to the villagers.<sup>51</sup> In this sense the scheme held tangible, immediate and practical benefits for the cultivators. In some areas, in fact, these schemes came in for public criticism on the grounds that they made cultivators daily-wage labourers on

their fallow lands, which were given over to the soil conservation and forest departments for the production of a crop that had a long production period and would take a while to bring in profits.<sup>52</sup> The concerned government department did not teach the labourer enough for him to take over in the future. The cultivators were also conscious of the fact that the areas under plantation crops would reduce the total area available for shifting cultivation. But they hoped that the loss of land would be offset by returns from the plantations and gardens.

Within *jhum* production, system variables like land and labour are not strictly quantifiable. Scientific analysis of carrying capacity of land and calculations of man-hours per day make little sense to the cultivators for whom 'labour' includes mending houses and taking care of pigs and chickens. Socialising helps in procuring labour when needed and therefore is a part of 'work' though it may look like leisure. Cultivators explain their declining yields and material standards of living in their own terms, which reveal the inextricability of production and the perceptivity of the natural world, all of which is mediated by the process of 'socialisation' in the community.<sup>53</sup>

The effort of the soil conservation and forest departments to introduce high value commodities was not generally acceptable since it required adjustment on the part of the cultivators to unfamiliar principles of production, of the future and of the labour process. Risks were higher as were the eventual returns, if all went well. All did not often go well. There existed a gap between what the government was willing to do and what its target group required. The cultivators could, even in the relatively inaccessible areas, relate declining yields to the increase in population, which altered the relationship between resources and numbers. There was recognition, arising from primary experience, that the reduction of the fallow period resulted in shorter species of trees and bushes, which did not yield optimum amounts of fertiliser after burning. They also knew of the problem of soil erosion and the cumulative effect of this on *jhum* and, consequently, steep slopes have been the last option as sites of cultivation. The first preference was to restore *jhum* to its erstwhile level of productivity.<sup>54</sup> One of the explanations given to them for the decline in yields was the shift from measurements from hands to *mauru* and kilograms. This observation provides an insight into the deeply ambiguous process by which subsistence cultivators adjust, not entirely favourably, to an increasingly penetrative market economy and at the same time to portray their declining standards of living. The government had advised the cultivators to plant trees and construct trenches on their fields, but this was impracticable given the tight schedules of cultivation and the necessity for a rigid adherence to timings which did not allow scarce time and labour to be expended. The government continued to think in terms of the cultivation of high-value crops and large-scale transformation, while the cultivators were left to grapple with their progressively meagre returns.

These schemes fell short even at the technical level, usually because of their faulty implementation. There are several instances of lapses. In Chandigre village according to Batjeng Muiin, the 'soil people' (that is, the personnel of the stat

oil conservation department) introduced coffee plantation in the 1970s. When the villagers asked what coffee was, they were told (not untruthfully) that it was beverage like tea. Convinced of the viability of its production, villagers took up coffee plantation work, first as wage labour and then independently. The 'soil people' in fact disappeared after the first year. The crop was partially damaged by *ambhar*, a species of deer. When the coffee crop was ready, Batjeng and the others took the beans to the nearby Chandigre village weekly bazaar with the intention of selling them. The beans prompted much speculation in the bazaar, but no buyers were forthcoming given the uncertainty about whether it was a vegetable or a fruit. Batjeng explained that coffee was drunk like tea. Finally, some people substituting the beans for tea leaves made a beverage. Nothing happened despite boiling them. It was only subsequently, after a great deal of effort trailing absence from the fields, that they realised the complicated procedures involved in starting a coffee plantation. The growers were paid only after the coffee Board had evaluated the coffee and graded it, a procedure which in effect implied that the growers would be paid a year after the coffee harvest. The government took too long to realise the benefits of encouraging a shift from the production of exotics like coffee, tea, rubber, cinnamon and cashewnuts (which lacked an adequate back-up marketing organisation) to the production of lower value but locally known and disposable crops like oranges and pineapples.

Dry terraces, tried on a large scale in the post-1955 period, met with limited success. Where the terraces were accepted, crops were grown in the same mixtures as they were on the *jhum* fields. On the whole cultivators realised that hill paddy (*nidokaru*) used for preparing the fermented rice brew (*beetchi*) did not do well on terraces.<sup>55</sup> In Selvalgre village there was an unexpected twist to the story. The terraces were abandoned after the first year; the fertility of the soil was reduced due to the top soil being lost in the process of making the terrace, and yields were low. Twenty years later the area was covered with trees and the people returned to *jhum* on the same terraces, achieving much higher yields than before. The government finally admitted failure in its attempt to grow cereals on terraces and discontinued these efforts.

The creation of *jhum* settlement colonies from the mid-1960s to the mid-1970s was another initiative that failed to meet with the expected success. At one level shift to the colony entailed a move from one's own *akhing* to another which was either in another *akhing* area or under the ryotwari settlement system of the 'plain areas'. It was consequently opposed by the tribals. In Tripura, a post-mortem of the Karancherra village scheme revealed that many families had abandoned the plain areas to *jhum* in the hills, others gave their land to *bargadar*s (sharecroppers) from a nearby refugee colony to supplement their resources, and many settlers worked as daily-wage labourers. Floods in the first few years of residence led to poor yield of rice, which was quickly consumed leaving little seed to resow the following year. Even the available stock was not enough for consumption and rice had to be purchased from the fair price shop. This required cash, which was earned through wage payments. The period of labour was coincidentally the period

for sowing the *aman* crop. The villagers could not cope with the transition from shifting cultivation to settled cultivation and the uncertainties of a market economy. In the hills, when crops failed, neighbours helped out, and hunting and gathering from the forest supplemented subsistence in the event of a calamity. The villager agreed to shift in the first instance only if the entire village was shifted. Hunted meat had been distributed equally in the village, which was now not possible because of the physical distance from the forests. But these options were not available in the colonies. The target group returned to the hills to *jhum* even after spending four years in the colony (Ganguly 1969: 108-25).

The Agro-Economic Research Centre (AERC), Jorhat, conducted a series of studies. One of these was a comparison between the yields under shifting cultivation and terrace systems in Darengiri village, Garo hills (Borah and Goswan 1977/1980). The study concluded that the yields under shifting cultivation were commensurate with terrace cultivation yields. Scientists explained this by suggesting that the cultivators spent more time and effort on the *jhum* plots. The report retained its faith in terrace cultivation, concluding that the barriers to the success of terraces were institutional (no private ownership) and economic (lack of technology and resources), which could be easily overcome. The study glosses over other facts. For example, terrace cultivation requires greater inputs in terms of fertilisers, pesticides and irrigation. The cost of maintaining and constructing terraces in a region of high rainfall was also not taken into account. The terrace crops were more prone to damage by insects, pests and weeds. Other reasons for the preference of *jhum* over terraces were: greater crop diversity was possible in *jhum*, a taste preference for the varieties of rice grown on the *jhum* fields, and that it was seen as the best method for growing vegetables (AERC, 1969). Ramakrishnan (1992: 198-200) has provided more technical reasons for the unsuitability of terrace systems: yields from continuous terrace farming decline after seven to eight years unless the plots are heavily manured. Further, terraces prevent soil erosion losses (that is, loss of soil), not of its nutrients, nitrogen and phosphorus losses through sediment, run-off water and percolation losses, which, though lower than under *jhum*, remain substantial.

#### CONCLUSION

The 'problem' of *jhum* in the official literature on north-east India suggests there is a dominant view that it, despite contrary conclusions arrived at by UNESCO under the Man and Biosphere Series (MAB/UNESCO 1986), needs to be eliminated altogether. The MAB studies reached the conclusion that it is possible for shifting cultivation to coexist with other forms of land use in a wider economy as a viable system of land use, with the caveat that there is a need for greater effort to increase the productivity of shifting cultivation. But in the absence of attention to shifting cultivation, a shortening of wilden cycles has contributed to desertification of the countryside in the north-east. The fallows are not long enough to allow the forest to recoup. Since the fertility of the soil depends on burnin

biomass, and the burned biomass is insufficient, productivity has fallen, leading to lower carrying capacity. Living evidence of this is visible in Cherrapunji, which is a barren area despite the heavy rainfall it receives during the year. The degradation in the vegetative cover and the high rainfall has led to soils that are leached and nutrient deficient. Recuperation is a slow uphill process.

Shifting cultivation continues its downward spiral. This sub-optimality arises from two conflicting tendencies: (a) the dominant pejorative perception of *jhm* constituting itself as policy and being diffused through various formal and informal channels and acquiring such dominance that it began affecting the swiddeners' self-perception of their own activity; and (b) the absence of a practicable alternative accompanying the efforts to eliminate *jhm*. The extension of democratic decentralisation has enabled the continuation of the practice, since policy in such instances inevitably follows politics. However, the absence of real power to the autonomous district council, especially financial power, prevents any positive intervention to integrate the shifting cultivation system with the larger regional economy. Apart from this deficiency, district-level policy makers see shifting cultivation as a ground-level reality that needs to be acknowledged due to various compulsions. If it is recognised as a legitimate system of cultivation relevant to natural conditions of its practice, it must follow that all the agricultural facilities offered to wet-rice cultivation and other such commercially valuable systems would be extended to *jhm*.

In the period under study there was an absence of an effective challenge to the dominant ideas on shifting cultivation in India. The situation looks bleak unless there is more of an effort to recognise both the fragile dynamism of the system and the very real problem of its ability to survive in the more intrusive environment of the wider political economy.<sup>55</sup>

#### Notes

Special mention needs to be made of an Indian Council of Agricultural Research (ICAR) study by Chaturvedi and Uppal (1953). The floods in the Brahmaputra valley were seen to have been primarily caused by shifting cultivation, which in turn caused deforestation and led to soil erosion, which then raised the level of the bed of the river causing it to spill over its banks and wreak havoc. These senior officials (the agricultural commissioner and the inspector general of forests respectively) noted

The surprise, therefore, is not that there is soil erosion in the Shillong plateau, but is that there is so little. In the Garo Hills riddled with age-old *jhm* (shifting) cultivation, one still sees streams carrying clear water after heavy showers. Had this area been anywhere near the Himalayas, the problem of shifting cultivation would have solved itself, by the shifting of the whole hill sides leaving no place to shift to. The situation is, however, different in the Naga and Lushai hills whose geographical formation renders them more prone to soil erosion. (ibid: 4)

Other benchmark studies are MAB/UNESCO (1986) and Ramakrishnan (1992).

Prasad (2003) advocates the need for positive intervention within shifting cultivation systems, and explores the limitations of some of the frames of analysis on shifting cultivation.

- 3 For example, a random entry in the diary of the deputy commissioner, Khasi and Jaintia hills for the week ending 3-10 April, entry dated 31 March 1864, expresses the need to request the 'chiefs' to contain the evil (Meghalaya Archives Cell).
- 4 *Report of the Proceedings of the Forest Conference, Allahabad, 1873-74*, Part III, p. 68, National Archives of India [NAI]. Calcutta: Government Press.
- 5 See Peal (1883) in *Indian Forester*. Similar sentiments are echoed in official records of different departments of the ICAR at various levels.
- 6 Department of Revenue and Agriculture, Forests, 'A' Pros., No. 16, December 1889 (NAI).
- 7 'Proposed Narengiri forest reserve', File no. and date not mentioned, DC Record Room Tura Garo hills.
- 8 'Report on the Sonaram R. Sangma Agitation by Mr J. C. Arbutnot, to the Chief Secretary to the Government of East Bengal and Assam', Shillong, May 1907 (DC Records, Tura). The movement took up the issue of *begar* or impressed labour, a demand for deservation of forest lands and recognition of certain lands as belonging to Garos.
- 9 Rev. 'A' Pros. Nos. 11-16, September 1892, 'Claims to highlands in the Jaintia Hills' from S. E. Rita, Sub-Divisional Officer, Jowai, to the DC Khasi and Jaintia Hills, No. 12, 512, July 1892, p. 1, paras 1 and 2.
- 10 Ibid
- 11 The belief being that left alone natural vegetation reaches an optimal state and continues to regenerate itself in an ideal way. Human interference disrupts the cycle and dwarfs the development of natural species.
- 12 In Burma, the practice called *tunpany sari* was the main method for artificial afforestation.
- 13 *Working Plan, Kamrup Forests, 1921*, Shillong, p. 13, para 56.
- 14 There is ample documentation of the working of the system possibly because the labourers opposed it. Most of the details I have gathered are from personal interviews at the Angratul forest reserve in the Garo hills in July 1992. Suren Marak and Raben Marak (aged approximately 92 years and 60 years respectively) were my chief informants.
- 15 Verrier Elwin (1959: 83) noted that *tunpya* cultivation was not part of a programme to improve *jhm*, but to bring it to an end by substituting it with a permanent cash crop.
- 16 *Progress Report of Forest Administration, 1914-15 to 1921-22*, p. 69, para 69.
- 17 'Note on the Garos' by W. Shaw, retd DC Garo hills, Governor's Secretariat Records (henceforth GS Records) (Confidential), File No. 228-C/1945 Assam State Archives [ASA].
- 18 Downs (1972) argues that on the whole, despite this, Christianity did not lead to a transformation in the lives of the tribal people. He holds the state administration responsible as the chief agent of change in the Garo hills. Christianity, according to him, only helped the tribals to cope with the change by giving them a positive identity and education.
- 19 There are reports (true or otherwise) that the converts were forced to work on Sundays as daily-wage labourers. Elsewhere missionary accounts record complaints that villagers were not allowed a school to run on the grounds that 'people were being forced to study' and were telling others to drink. 'Jingnan's charges against Rintang', from Dr Reverend Harding, Department GS File No. 1063, 1923, Garo Baptist Convention Records, Mission Records, Mission Compound, Tura. Whether these are acts of resistance or just some nuisances recorded by the missionaries is difficult to gauge.
- 20 'Proposed introduction of terraced cultivation in the northern parts of the Khasi and Jaintia hills district', Revenue Department (Revenue), 'A' Pros. Nos. 50-61, no. 51, paras 1-7, 18 (Meghalaya State Record Room [MSSR]).
- 21 'System of paying cash to cultivators for terraced rice cultivation in the hills', GS Records, 'A' Pros. Nos. 194-195, September 1941 (ASA).
- 22 'Settlement of 80 bighas of land with Kanan Singh of Reshu, near Damra in the Garo hills for ordinary cultivation', note by the DC Garo hills district, General Department, Revenue Branch 'A' Pros. Nos 13-16, June 1904 (MSSR).
- 23 Dr Reverend Harding took a keen interest in dissuading villagers from forming new settlements. 'Jingnan's charges against Rintang', Tura, GS Department, File No. 1063, 6 November 1923 (Garo Baptist Convention Records, Mission Compound, Tura).

- 'Denudation of forests in the Garo hills: Replacement of jhum by other methods', note by G.D. Walker, DC Garo hills, dated 30 May 1938, GS Records, Miscellaneous, 'A' Pros. Nos 1-11, September 1940 (ASA).
- Culled from various newspaper reports in the *Assam Tribune*, a Guwahati-based English daily.
- Note by A. R. H. Macdonald, DC Garo hills, dated 19 April, from the DC Tour Diary for the month of April 1941, GFR, 88/1942, 'Proposed Narenggiri forest reserve' (ASA).
- Collection of Evidence from Laskars, etc. by the DC Garo hills, report of Salrang Laskar, Mauza No. III, Village Wariboligiri, East, Antmangi, Garo hills District, dated 5 July 1940, Collection No. VIII, File No. 10, Index No. 21, Miscellaneous (DC Records, Tura).
- Notice issued (in Garo) by the DC Garo hills to all Laskars of Mauzas I-IV, 'The shifting cultivation Mauzas', Revenue Department, Collection No. V, Agriculture Branch, File No. 1, No. 387/R-1, 'B' Pros (DC Records, Tura).
- 'Demonstrations', Revenue Department, Agriculture Branch, Collection No. V, File No. 17, 1920-21 (DC Records, Tura).
- 'Denudation of forests in the Garo hills', Collection No. IX, Forests, File No. 1, Miscellaneous, 1940 (DC Records, Tura).
- Collection No. VIII, File No. 10, Index No. 21, dated 24 October 1938, DC's note dated 17 April 1938 (DC Records, Tura). This note shows the essential lack of understanding of the system of shifting cultivation. The officials assumed, and to some extent still do, that fires were lit arbitrarily on the fields which then spread causing damage to reserved forests and to property. In reality, fires were lit on specified dates and with prior careful planning, common knowledge and adequate safeguards against spreading. Firing of fields is the most delicate operation in shifting cultivation and a fire wrongly lit can lead to enormous damage; it may rain, or the fire may not light well, or it may blow towards the settlement area, possibilities of which the cultivators, more than anyone else, were (and remain) acutely aware.
- A 'Note on the deforestation of some parts of the Garo hills' by Reverend J. J. M. Nichols-Roy, Minister, Local Self-Government, triggered off a volume of enquiries by forest and civil authorities, the proceedings of which were keenly pursued in the English press and which became a major issue of discussion in the legislative assembly. The note contains the minister's comments on 'the denuded state of the country' while noting the tension between Mankachar and Tura. See 'Note . . .', dated 22 March 1938, GS Miscellaneous, 'A' Pros, Nos 1-11, September 1940, 'Denudation of forests in the Garo hills' (DC Records, Tura).
- In Letter No. 31, Tura, 17 May 1938, Jobang D. Marak, MA, to J. Rynjah, DC Garo hills, commenting on Nichols-Roy's observations on the denudation of forests and the consequent proposal to afforest the land wrote, 'Keeping in view the dearth of lands for jhumming I am somewhat disinclined to advocate the proposed propaganda; nor do I consider the question to be very urgent or expedient on a very large scale at present.' GS Miscellaneous, 'A' Pros. Nos 1-11, September 1940, 'Denudation of forests in the Garo hills' (DC Records, Tura).
- Memo No. B/955, from L. J. Denaugerede, DFO, Garo Hills to Reverend J. J. M. Nichols-Roy, Minister, Local Self-Government, through the DC Garo hills dated 22 March 1938, in the DC Records Collection No. VIII, Index No. 21 (Undated) (DC Records, Tura).
- An example is de Schlippe (1956). The emphasis on the need to understand the habits and customs of the people in order to present solutions should be seen in this context. It is not surprising that many of these studies provided excellent documentation of shifting cultivation in different regions. There have been few comparable studies in the Indian case, and those that exist are of recent vintage.
- From C. Purkayastha, Chief Forestry Working Group for Asia and the Pacific, to S. K. Dutt, Assam Chief Secretary, File No. TAD/FR/33, 1952, 'Study in shifting cultivation, jhumming in the hill areas of Assam by FAO' (ASA).
- For typical expositions see Smitth and Purkayastha (1946), Goswami (1968: 6-10) and Saha (1973).
- Unofficial note of Director, Information and Public Relations, Meghalaya, Agricultural Department (General), File No. 47, 1972 (MSRR).
- 33 'Scheme for regrouping of villages in Garo hills', p. 4, para 11, Meghalaya Agriculture (General Department) 3/72 (MSRR).
- 34 Ibid, p. 3, para 8.
- 35 Watters (1971); see pp. 1-37 for comparisons with studies in north-east India.
- 36 *The Shillong Times (ST)*, Saturday, 30 August 1969, p. 3.
- 37 *Report of the National Commission of Agriculture, Vol. IX (1976)*. New Delhi: Ministry of Agriculture, pp. 605-6, para 13.2.4 of report.
- 38 Ibid.
- 39 'Note on the National Commission of Agriculture', p. 2, Agriculture Department, General Branch, File No. Agri (G) 411/1977, Part V (MSRR).
- 40 This is one problem with the explanation in Bina Agarwal (1994), of the impetus of socio-economic change leading to altered gender roles in the Garo hills. Agarwal's identification of state action as the primary driver behind the transformation of shifting cultivation shifts focus away from the impulses generated within the system of cultivation itself, and does not account for the specificities of the political-economic space within which the practice continues to present.
- 41 There are numerous instances of petitions for relief after poor paddy yields because jhum fire could not be lit on time, or due to untimely rainfall, crop damage by insects and pests. See for instance, 'Proceedings of the Durbar El aqa regarding jhumming cultivation at Lumshong Jowai, 1972', Agriculture (General), 172/72 (MSRR).
- 42 *The Garo Hills Autonomous District Council, Acts, Rules and Regulations as Amended up to 31 December 1968*, Tura, 1968, pp. 17-20.
- 43 'Soil Conservation Scheme for Crash Programme for Rural Employment', Tribal Areas and Backward Classes Department (hereafter TAD), Soil/96/1971, para 1 (ASA).
- 44 This aspect is unambiguously brought out in an internal publication (Suchang 1987). Suchang was then a conservator.
- 45 This information has been gathered personally from Chandigre and Asangre villages in the Garo hills in July 1992.
- 46 Letter from R. T. Rynhai, Secretary, Tribal Areas Department to M. C. Jacob, Senior Conservator of Forests, discussing the criticisms made by Williamson Sangma, Chief Executive Member Garo Hills District Council, in D. O. No. TAD/FR/70/1956 (ASA).
- 47 Batjeng Moin of Chandigre village (age approximately 71 years), explained the decline in his standard of living defined by declining production, in terms of being unable to celebrate *wangala*, the main festival of non-Christian or *sansarek* Garos, coinciding with the harvest of the main crops in the *jhum* field, and the other festivals. The celebration of these festivals is seen as necessary to ensure good yields successively, and the two are related in a cyclical way. He could not celebrate the festivals due to the paucity of rice, which is necessary for the feasting that accompanies the festival rites. He recalled a time when his *jam* (storehouse) was full of grain and he had taken some rice to Tura to sell. There were no buyers for it and he disposed of it for a trifling sum. Now he has to purchase rice and fowl from the market at exorbitant rates. Noben Sangma (76 years approximately) kept his 'door open' to feed people worshipped and followed all the prescriptions keeping step with the values of the community and was seen to be better off as a consequence.
- 48 Moin of Chandigre village, when asked what would be ideal conditions for cultivation replied, 'To be able to cultivate in a thick forest where the trees are tall.' He could not imagine a life without *aba-osa*.
- 49 Information furnished by Khalisin Sangma and Rongseng Sangma of Kangkalangre village in Garo hills on 30 July 1992.
- 50 Many of the debates involving shifting cultivation neglect the technical aspects of the conditions under which it is carried out, and the limits within which it reproduces itself. The soil on which shifting cultivation is carried out is usually poor in nutrients and the topography of the area uneven, leaving the soil highly exposed and prone to weathering. The burning of the floor prior to cropping alters the soil composition even further, leading to a further depletion of

nutrient contents, particularly nitrogen. Subsequent to firing and following the fallow period, the soil is able to recuperate some of its properties, but for the overall nutrient gain to exceed the loss, a minimum fallow is crucial, or else the soil depletes itself to a point where recovery is very difficult and vegetative succession degenerates to a point when forest cover is replaced by grassland and even deserts. This has a cyclical effect on productivity under *jhum* and the whole system is trapped in a continuous downward spiral. Documentation of this kind is found in Ramakrishnan (1994). Additionally, research has shown that there could be a connection between flooding in the Bangladesh plains and rainfall patterns in Meghalaya (Hofer 1997). Cherrapunji, with its extraordinary annual precipitation of 9,527 mm concentrated between May and September, may contribute directly to flooding in the flood plains of north-eastern Bangladesh. A bald rocky landscape and shallow soils allow for easy run-off. Where has the vegetation gone? How did it disappear? Shifting cultivation played no insignificant role in contributing to the Cherrapunji topography and possibly then to the floods in Bangladesh.

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