

FROM THE INDIAN FORESTER - ONE HUNDRED YEARS AGO

THE INDIAN FORESTER OCTOBER, 1916 (502-508 pp.) DEMARICATION OF FOREST RESERVES IN BURMA BY A.J. BUTTERWICK, P.F.S.

1. According to the rules now in vogue, the following is the method usually adopted for demarcating forest reserves in Burma. The outer boundary is delineated by means of pillars or posts, boards, and blazed trees, whereas the inter-compartment boundary is marked by pillars or posts at the junction of two or more compartments, and blazed trees. This article is not concerned with boundary pillars or posts, but only with the system of blazing trees, which, in the writer's humble opinion, is neither desirable nor required.

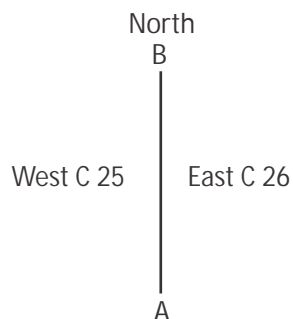
2. The following are the rules which govern the blazing of trees for demarcation:

"Trees under one foot in diameter should not be blazed if a sufficient number of larger trees are available. The blazes will be cut at a convenient height from the ground on the outer side of trees, on or within the forest as near as possible to the boundary line, and will face outwards. They should have a well and clearly cut face, both edges of which will be bevelled well back to delay occlusion, sufficient of the heartwood being exposed (in the case of tree having a distinct heart) to take at least three clean impressions of the demarcation hammer.

"Inter-compartment boundaries shall be blazed similarly to reserve boundaries, but the trees shall be blazed on the both sides, each blaze being marked with the *compartment hammer*."

Again later order on this subject are:

"Blazes must face away from the compartment to which they refer; thus in the diagram below, when walking north along the ridge AB, blazes marked 25 will be seen facing east and blazes marked 26 will face west.



"Several impressions of the number may be put in the centre of the blaze, and the C hammer put round it. To indicate places where posts have been put, it is advisable to have, say, three trees close to the post, on each line meeting at the post, blazed twice, one blaze above the other.

"Teak tree must never be blazed unless they are useless for timber or there are no other trees to blaze. Numbers should be struck on the heartwood. It is better to have a few large trees blazed than a large number of small trees; as the latter often break and rot. From one blaze tree the next should be easily visible."

3. From the above rule it may be concluded that the following trees should not, ordinarily, be blazed:
(a) Teak trees. (b) Trees under one foot diameter. (c) Trees without a distinct heartwood. (d) Trees some distance from the boundary line.
4. The practice of blazing trees has two advantages, in that it not only demarcates the reserve, or compartment, but also serves to help one to find his place easily on the map. Besides it is a comparatively cheap way of demarcation.

It has, however, the following great disadvantages:

- (a) The blazes are not permanent, as in anything from ten to fifteen years, they are completely occluded and the hammer marks are either obliterated or hidden from view.

- (b) Blazes injure the trees badly, as they not only vitiate their vigorous growth, and form misshapen boles, but also serve as entrances for harmful insects and fungi. Also in many cases trees deeply cut in are blown down by the wind. Further in plate 48, Fig. 7, it will be seen that the heartwood exposed by the blaze has been badly scorched by fire
 - (c) Repairs to a blazed tree are expensive as they have to be carried out comparatively often, if the demarcation is to be of any use.
 - (d) As the hammer marks on the blaze are all in English characters, the Burmese "tawtha" coolies are, in the majority of cases, not able to read them or to know the number of the compartment.
 - (e) As the outer boundary of the reserve is marked with the R hammer only, it is not possible for any one not thoroughly acquainted with the reserve to tell which compartment lies on the other side of the blazed trees.
6. When a blazed tree is repaired, either the old blaze must be opened out and deepened, or else a new blaze be made either above or below the old one. After the tree has thus been repaired two or three times, its vitality is bound to have become so impaired that it will either be killed and rot away or else be blown down by a strong gust of wind. It may be contended that in the forest of Burma there are so many trees along the boundaries that if one falls there is always another to take its place. Further, there is an increasing demand for good timbers besides teak, and, as in the case of teak, this demands will not allow any tree of the more valuable species being blazed for demarcation purposes. It is just these valuable species then, which, having a durable heartwood, are able to bear the heavy blazing for some time. Other inferior species soon gets fungus or insect ridden, and in a short time become hollow and rotten.
7. In the writer's opinion, instead of blazing the trees as is done now, demarcation should be done in the following manner:
- (a) Along the outer boundaries "Asoya (30 8:1)" boards as used at present, should be placed every 20-50 yards apart, the distance depending on the locality of, and density of growth in, the forests. These boards will be nailed about 12-15 feet high on trees, to be out of the reach of elephants. They should be made as at present, except that the letters should be stamped on them by means of marking hammers. The letter will then be filled in with black paint.
 - (b) Along both the outer and inter-compartment boundaries small boards should be placed high up on trees about 10-50 yards apart. Each board will be 8"x4"x1". It will be painted white and have stamped on it, by means of iron dies, the letter C, and the number of the compartment in English and in Burmese numerals. These will be painted in with black paint.

From enquiries made it is estimated that the cost of each such board, including its fixing up on the tree, will not exceed annas four.

The advantages of having these boards, instead of the blazing, are manifold:

- (a) The trees are not injured in any appreciable manner.
- (b) Small trees of inferior species can be used and the more valuable tree left alone.
- (c) Adjacent compartments can easily be marked on the same tree.
- (d) The numbers and letters having been sunk into the boards, they will be practically permanent, and will last as long as the timber does.
- (e) The boards, having been placed high up on the trees, will be more easily seen than the blazes, which are lower down.
- (f) Burmese coolies will be able to read the number of the compartment.
- (g) The outer boundaries will have the respective compartment numbers marked along them.
- (h) The demarcation lines will not require repairs as often as they do now.

The disadvantages of the system now advocated, appear to be :

- (a) the cost of demarcation will be much higher;
- (b) the boards are apt to be broken, burnt, or stolen.

In the many forests in Northern India, visited by the writer, blazing of trees was never done to demarcate the reserves, and in those parts of the country the population was far denser and the land comparatively more valuable than in the majority of places in Burma.