

In the Northern Circle, under the advice of the Inspector-General of Forests with the Government of India, a detailed project of fire-protection measures was drawn up and given effect to to save the Tansa Lake catchment area, which measures 33 square miles. It consisted of surrounding the wooded portions by a complete network of fired belts, aggregating 169 miles in length, and varying in width from 50 to 200 feet, and maintaining these under efficient condition throughout the season by employing a staff of fire patrols, mostly Wariies by caste, from the adjoining villages. Moreover, with a view to minimise the risk of internal fires occurring, permanent blanks round deserted village-sites, mostly barren of tree-growth owing to out-cropping trap sheet rock, but covered with dense grass, were burnt deliberately, as it was from these very areas that fires in the past used to spread into the wooded tracts in the hollows and ravines covered with valuable teak forest. The success was unprecedented, as only 400 acres out of the 33 square miles under systematic protection caught fire in the remote south-western corner of the lake.

2,222 square miles of forest were entirely closed to grazing, while 8,464 square miles were open to all animals, and 5,490 were open to cattle only. Notwithstanding the fact that the estimated value of the free grazing allowed amounted to 3½ lakhs, much illicit grazing went on. In the Central Circle over 60,000 animals were impounded, and in other circles the amount of illicit grazing was by no means small.

The Central Nursery at Mangri in the Central Circle was continued and extended. 20,000 acres were added during the year to the area planted up, and over 200,000 plants were distributed among the several divisions of the circle.

The total revenue amounted to Rs. 26,09,361, while the expenditure was Rs. 20,27,268. The surplus of slightly under six lakhs was obtained mainly from the Southern Circle, and is less than half what it was ten years ago. The deficit in the Central Circle amounted to Rs. 87,000, while Sind, on the other hand, furnished a surplus of Rs. 1,44,105.

Forestry in German East Africa.*

FROM the reports before us it is evident that a good deal of attention is being paid to forestry in German East Africa.

The only area under regular working appears to be the mangrove forest in the delta of the Rufiji River, which, during the year under report, yielded 710,365 cubic metres of timber

* *Berichte über Land-und Forst-wirtschaft in Deutsch-Ostafrika*, published by the Imperial Government of German East Africa, Dar es Salam, 1902.

compared with 851,922 cubic metres in the previous year, the financial results being as follows:—

	Rs.	Rs.
Receipts	57,253
Expenditure—		
Conservancy and works	38,407	
Establishment	5,350	
	43,757	
Surplus	10,492

Cultural operations were carried on to a considerable extent in this forest, both in the way of under-planting areas previously felled over on the selection system, and planting up open blanks. In both cases the species principally planted was *Bruguiera*, as it was found that the equally valuable *Heritiera* reproduced itself naturally in sufficient quantities. In stocking blanks the chief difficulty to be contended with was the rank growth of ferns and wild date palms, and plantations were only successful on areas low enough to be covered by spring tides.

There seems to be a general dearth of woods, and consequently also of timber, throughout the colony, and for this reason afforestation and experimental plantations are being undertaken on a considerable scale. The principal operations were in the district of Wilhelmsthal, where an attempt is being made to reclothe the bare hillsides with forest. Good results were obtained with various species of eucalyptus, Australian wattles and *Pinus insignis*, especially when planted out in baskets. Indigenous species were also sown in groups in existing forests. The baskets mentioned above are made out of the dried leaf sheaths of the plantain. The dried sheaths are cut in lengths of about 18 inches, and two pieces previously moistened are placed crossways on the top of a short stake of the diameter of the basket. The strips are then bent down and tied round the stake at the required length, the free ends being turned back and again tied. A man can make 150 such baskets in a day, and plants can be kept in them for several weeks before putting out. They are thus much cheaper than the bamboo baskets ordinarily used in India, and probably equally serviceable. It is noted that in Réunion planting baskets are made in the same way from *Pandanus* leaves.

Plantations of indigenous trees as well as *Cassia florida*, teak and other species were also undertaken in the Tunga district, where as an experiment the so-called Sachsenwald is being managed after the manner of a "Protected Forest" in India. Good results as regards reproduction have been attained wherever protection from fire and grazing has been successful, and blanks have to a large extent been filled up with exotic *Albizzias* and other species. Elsewhere no attempt at Forest Settlement seems to have been made.

Large quantities of seed, principally teak, sandal, Australian acacias, and *Acacia Catechu* were received from the Indian Forest Department and distributed for experimental cultivation at suitable stations.

In the future it is intended to make extensive plantations of teak in the coast districts and on the lower lying land along the railway, where teak does well, and where there are large areas suited to it. It is expected that these plantations at an age of 80 years will yield a much needed supply of timber. It is also proposed to make plantations of Australian tanning wattles at accessible stations in the hills, and to work them, chiefly for their bark, on a six to eight years' coppice rotation.

As a result of the International Conference on game protection held in London, the export from German East Africa of elephant tusks less than 5 kilos in weight has been prohibited, with a view to putting a stop to the destruction of immature elephants.

V.—SHIKAR AND TRAVEL.

The Indian Pheasants and their Allies.

By F. FINN, B.A., F.Z.S.

CHAPTER IV.

THE LONG-TAILED PHEASANTS.

(Continued from p. 351.)

Of the various long-tailed types of pheasants, the true Argus is certainly the most remarkable, the genus being quite unique among birds in general. The most important characters, in addition to the bare head and long secondary quills mentioned in the previous chapter, are the rather long legs and the tail, which is folded like that of a common fowl and composed of only 12 feathers. It is only moderately long in the hen, barely exceeding the wing; but in the cock the middle tail feathers are of enormous length, up to over four feet. In this sex also the secondary quills, which are very broad as well as long, exceed the primaries by considerably more than a foot; even in the hen the primaries are some inches shorter than the secondaries.

THE ARGUS.

Argusianus argus:—Blanford, Faun. Brit. Ind. Birds. Vol. IV, p. 71.

Native names:—*Quou*, *Burong quou*, *Kwang*, Malay; *Kyek-wah*, Siamese at Bankasoon.