SECTION III.—FORESTRY.

(From Report on the Moral and Material Progress of India during 1871-2, by Clements R. Markham, C.B.)

The Forest Departments in most provinces in India have not been in existence for more than 15 years, and much will have to be done, many difficulties and obstructions must be removed, before they will be in thoroughly effective working order. The importance of their work, is, however, beginning to be understood, and when the forest revenues largely increase, the value of conservancy will be recognised, even by the numerous class which looks upon any thought for future generations as a waste of time and money.

Probably the most important, though indirect, object of forest conservancy is the natural influence exercised by trees on the drainage of a country. Where the mountains are bare the rain rushes down in torrents, destroying roads and bridges, giving rise to destructive floods at the outlets on the plains, and doing other injuries, both in the hill tract and the plains, and the supply of water is uncertain and capricious during the dry season. On the other hand, where the forests are preserved, the superficial drainage and dry weather discharge are both gradual, the springs are better supplied,

and regularity and safety are insured to irrigation works on the plain.

The direct objects are, first, to meet a rapidly increasing demand throughout India for enormous supplies of timber and fuel. The cultivators, as their condition improves, require to exchange miserable huts for better-built houses and better furniture. There is an immense demand for railway sleepers, for fuel for steamers and railways, and for timber and fuel for large towns. The interests of trade, which have a direct bearing on the prosperity of the people, also require consideration, in order to meet the demand for teak, sandal-wood, catechu, lac, caoutchouc, and other forest products. The rapid increase in the magnitude of these demands is strikingly shown by the effect it has had on the export timber trade in some parts of India.

Unless the small extent of remaining available forest is very carefully managed, there will be great difficulty in meeting the demands for timber, bamboo, and fuel, which are increasing everywhere. In 1846 a department was organised in the Bombay Presidency under Dr. Gibson; in 1856 Drs. Cleghorn and Brandis commenced work in Madras and British Burmah respectively. Dr. Cleghorn not only created the department in Madras, but also laid the foundation of forest administration in the Punjab, and was subsequently associated with Dr. Brandis in organising the Forest Department in Bengal. In 1864 Dr. Brandis was appointed Inspector-General of Forests to the Government of India.

It has been found necessary to retain as many important forest tracts as possible in the hands of the State for exclusive management, as it is impossible to control the forests efficiently when in private hands, and the Government forests offer the only means of training an experienced body of foresters with practical knowledge. The reserved forests are under the exclusive management of the department. But the largest portion of the forest area is still unreserved, and the people retain rights of pasturage, of destructive burning, of desultory cultivation, which is equally destructive, and of collecting products. These unreserved forests are generally under local district officers, and when well managed they yield a good revenue available for roads and other public improvements. Thus the forests under the control of Government are divided into three main divisions,—reserved forests, unreserved forests, and plantations. The forests reported to have been reserved and secured to the State cover 6,200,000 acres as compared with 6,000,000 acres in Prussia, 2,500,000 in France, and 112,000, comprising the Crown forests of England. Much time must elapse before the Forest Department in India can reach a really prosperous condition as regards financial results.

The great mass of the forests, owing to past neglect, is in a poor and exhausted state, and large sums must for a long time be annually spent on surveys, demarcations, boundaries, roads, and plantations. The income of the last three years has fluctuated