

introduction on the climatic and general influence of forests, a brief historical account of forest management in Germany, France, and Italy; two memoirs on the structure, nutrition, and cultivation of forest trees; and a paper on the valuation of forests and the preparation of working plans. This publication is to appear periodically in the form of a forest journal, and the first volume contains, besides the larger papers mentioned, various short notices on matters relating to forestry. Italian forest literature otherwise is not rich, but of late there has been a series of important and interesting official publications by the Ministry of Agriculture, which is entrusted with the direction of forest administration in Italy. The two most important of these are a collection of the laws and statutes relating to forests which have legal force in the different territories composing the kingdom, and a general statistical account of forest lands in Italy.* Of the last-named work, the introductory part has been separately published in the "Annals of the Ministry of Agriculture." Of a total area of 28½ million of hectares, inhabited by a population of 24½ millions, five millions of hectares was, in 1870, classed as forest land, made up as follows:—

State forests	...	...	...	...	194,000 hectares.
Communal forests	...	...	...	...	2,170,000 "
Private forests	...	...	...	...	2,662,000 "
Total	...	...	...	...	5,026,000 "

The large ecclesiastical estates which of late years have become public property have not been retained as State forest, but have been sold, and a considerable portion of the Crown forest lands and other dominions of the different Italian territories has also been alienated. This explains the small extent of State forests in the present Kingdom of Italy. The question of the forest lands in the Island of Sardinia, which are, or were until lately, the joint property of the State and communes, has not yet, I believe, been finally settled, and to the extent of half a million of hectares they are entered under the head of communal forest lands.

Projects of a general forest law for the whole kingdom have repeatedly been submitted to the Italian Parliament. The evil effects of denudation are keenly felt in many parts of the country, and the aim of these proposed legislative enactments has hitherto been to guard against further mischief, by determining beforehand which lands shall, in the public interest, be clothed with forest or be kept under forest, and then to place the whole of these lands under the supervision or control of the public forest officers, without distinction, whether they happen to be the property of the State, of village and other communities, or of private persons. From the report with which the Minister of Agriculture submitted a project of general forest law, in March, 1870, it appears that the financial exigencies of the country had rendered imperative the alienation of the greater part of the forests at the disposal of the State, and that it was only intended to retain a limited area of State forests, mainly with the view of supplying the timber required by the navy, and the forests required for this purpose the Bill proposed to declare inalienable.

Thus, with regard to forest matters, it seems probable that Italy will pursue a policy different from that which has of late years been initiated in most provinces of India. In those provinces we acknowledge the necessity of maintaining certain areas under forest, or of clothing them with forest when they are bare, but we do not expect any satisfactory success in these attempts, unless the forests to be thus maintained or created are under the entire control of the State, and we entertain no serious hopes of effecting any real good by the supervision of private forests, or by any general kind of control over communal forests, unless the administration or management of such communal forests can be vested entirely in the hands of the public forest officers.

In those provinces, therefore, of the Indian Empire to which I now refer, our principal aim is, in the first instance, to consolidate the State forests wherever the State has suitable forest lands at its disposal; and we hope that eventually, when the majority of public forest officers shall have acquired that professional knowledge, skill, and experience which is necessary for a satisfactory management of forest lands, that they may be found competent, not only to manage the State forests entrusted to their charge, but also to induce large landed proprietors to follow their example in the management of their own estates, and, if such should ever be found necessary and expedient, to exercise an efficient supervision over private and communal forest lands; but we think that any attempt to exercise supervision and control over private and communal forest lands through the agency of forest officers who have not actually charge of public forests entirely under their control, and who cannot point to the management of their own forests as an example to be followed in the management of the private or communal forests, would lead to unsatisfactory results. The further development of the general forest policy in Italy will doubtless be followed with great interest by Indian foresters, and on this account it appeared to me right to add the present remarks.

Besides the silver fir forest of Vallombrosa, there are many other public forests of interest in Italy. A mere enumeration would be of little use, and a descriptive account would lead too far: it must suffice to state that any forest officers who may visit the communal forests of Friaul will do well to see some of the old forests of the Venetian republic, which, in the middle ages and during the centuries immediately following, yielded a large portion of the timber required for the navy of that rich and powerful State. The oak forest of Montello, near Treviso, the mixed beech and silver fir forest of Cansiglio, on the limestone hills north of Ceneda, are some of the old State forests of Venice, and the boundary marks of the republic cut in the live rock were shown to me eight years ago on the south-east limit of the Cansiglio forest. High up on a tributary of the Piave, near the small town of Auronzo, is the Sommadida forest, of limited extent, but on deep rich soil, and with exceedingly luxuriant growth of spruce, larch, and other trees. The larch is here in its native home, and I have never seen finer specimens, both as regards length of stem and quality of the wood. The mast pieces for the Venetian navy were partly brought from this forest. I understand that it is not intended to alienate the Sommadida, which I fear may be the case with many of the other old Venetian State

* "Raccolta delle Leggi Forestali, 1866." "Statistica Forestale, 1870." Some of the figures in the latter work are believed to be open to correction.