

small quantity of the grain produced was exported. The railways have made prices of grain uniform over large tracts; and in times of famine and scarcity in the neighbouring Provinces the surplus grain of the country is exported, thus causing a rise in prices. During the famines of 1897 and 1899-1900 prices of grain were extraordinarily high, though, while grain was being imported for the relief of the affected areas, it was being largely exported for the relief of the affected areas, it was being largely exported from the other parts of the State to Provinces where large profits were probable. During the famine of 1899-1900, *jowars* sold at 5 seers per rupee in Aurangabad, at  $3\frac{3}{4}$  seers in Bhir and Nander, at  $4\frac{1}{4}$  seers in Parbhani and Osmanabad, and at  $5\frac{1}{4}$  seers in Bidar. In Table III the price of salt is given for Hyderabad city only, the prices in the country being almost the same.

#### Forests

A total area of nearly 18,000 square miles is under forests, which are divided into three classes: the 'reserved' (5, 184 square miles), the protected (4, 408 square miles), and the open or unprotected (8, 387 square miles). In the 'reserved' and protected forests, trees are under the control of the Forest department; but in the open forests only sixteen species are 'reserved': namely, sandal (*Santalum album*), teak (*tectona grandis*), *shisham* (*Dalbergia Sissoo*), *Eboni* (*Diospyros melanoxylon*), satin-wood (*Chloroxylon Srvieteneia*), *eppa* (*Hardrvickia binata*), *nallamadi* (*Terminalia tomentosa*), *bijasal* (*Pterocarpus Marsupium*), *batta-gunam* (*Step hegyne parvifolia*), *somi* (*Soymida febrifuga*), *dhaura* or *tirman* (*Anogeissus latifolia*), *kodsha* (*Cleistanthus collinus*), *sandra* (*Acacia Catechu*), *bhandara* (*Adina cordifolia*), *mokab* (*Schrebera srvietenoides*), and *chinnangi* (*Lagerstroemia parviflora*). The forests from six divisins - Warangal, Indur, Nirmal,

Mahbubnagar, Aurangabad, and Gulbarga - the two last being in Marathwara, and the remainder in Telingana. Each division is under an Assistant Conservator. The management of this department is guided by the Forest Act of 1899, which empowers the Conservator to exercise full control over 'reserved' and protected forests, and 'reserved' species of trees in open forests. Timber is supplied to purchasers at prescribed rates, while cultivators receive free timber and fuel for agricultural implements and domestic purposes. Minor produce, such as grass, branches, and leaves, &c., is likewise granted free to the local ryots. Free grazing is also permitted, under certain restrictions. After meeting the local demand, timber of various kinds is exported to different parts of the State. Local railways and the military workshop are also supplied with timber, exploited and transported departmentally. No use is made of elephants nor are floating operations resorted to.

No special fuel and fodder Reserves are maintained, but the grazing in the 'reserved' and protected forests is regulated by the department, and fees are collected either departmentally or through contract agency. Grazing rights in the open forests are auctioned annually by the Revenue department. In years of scarcity cattle are sent to the forests, which are then thrown open to free grazing. Measures are adopted to prevent the destruction of trees for leaf fodder, and some attempts have been made to store fodder. Edible fruits, roots, and flowers are utilized during famines by the destitute and starving poor. Some of the valuable forests are protected from fire by making regular fire lines, prohibiting the carrying of inflammable materials, closing areas to grazing, and by the appointment of patrols and guards.

## FORESTS

There are no special plantations of any economic value in the State. The following table shows the area of each class of forest in each Forest division in 1901:-

| Forest Divisions | Area in square miles |              |              |               |
|------------------|----------------------|--------------|--------------|---------------|
|                  | Reserved             | Protected    | Open         | Total         |
| Warangal         | 2,368                | ...          | 2,000        | 4,368         |
| Indur            | 907                  | 644          | 2,980        | 4,531         |
| Nirmal           | 700                  | 3,307        | 2,000        | 6,007         |
| Mahbubnagar      | 800                  | 322          | 547          | 1,669         |
| Aurangabad       | 288                  | 69           | 600          | 957           |
| Gulbarga         | 121                  | 66           | 260          | 447           |
| <b>Total</b>     | <b>5,184</b>         | <b>4,408</b> | <b>8,387</b> | <b>17,979</b> |

As the forest survey and demarcation have not been completed, the areas shown above are only approximate, and it is possible that as much as one-third of the total is really cultivated. The forests are not equally distributed in all parts, the two Districts of Osmanabad and Bhir having no forest at all, while the forests in Karimnagar (Elgandal), Warangal, and Adilabad (Sirpur Tandur) occupy half the area of the State lands. The Marth Districts are far less wooded than the Telingana country.

The figures given below the average revenue, expenditure, and surplus of the Forest department for a series of years:-

|             | Average for ten years ending 1890 | Average for ten years ending 1900 | 1901     | 1903     |
|-------------|-----------------------------------|-----------------------------------|----------|----------|
|             | Rs.                               | Rs.                               | Rs.      | Rs.      |
| Revenue     | 1,02,546                          | 2,02,546                          | 3,45,445 | 3,69,511 |
| Expenditure | 72,360                            | 1,14,904                          | 1,44,369 | 1,47,125 |
| Surplus     | 30,186                            | 87,100                            | 2,01,076 | 2,22,386 |

valuable coal, being semi-bituminous hard coal which does not coke but yields a good gas for lighting purposes. This is the seam which is now being worked. Its thickness is from 3 to 7 feet and its area about 9 square miles, and at the average thickness of 5 feet it is computed to contain not less than 47, 500, 000 tons of coal. The royalty paid to the State varies from 8 annas to R. 1 per ton. In 1896 the total royalty released was Rs.1,25,000. The output of coal from the Singareni coal-field rose from 3, 259 tons in 1901, in to 1887 to 144, 668 in 1891 and 421, 218, and was 419, 546 tons in 1904.

Gold occurs in Lingsugur District, in the rocks of the transition series, in the Muski, Bomanhal, and Sagar formations. The total area of gold-bearing rocks in this territory, as proved by the Geological Survey of India and by the prospecting operations of the Hyderabad (Deccan) Company, is about 1, 240 square miles. The first band of rocks lies between the Tungabhadra and Kistna rivers, and is composed essentially of a schistose black hornblendic trappoid. This band was actively prospected in 1896-97 by the Hyderabad (Deccan) Company, and a subsidiary company has since been formed to work the quartz. The average yield here, it is alleged, has been an ounce to the ton, and certain specimens have yielded as much as 20 oz. to the ton, but this is rare. Want of water for working the stamps has hampered operations, but this difficulty has been got over by the construction of an artificial reservoir. The next band is at Bomanhal, extending from the left bank of the Kistna west of Surapur for about 20 miles, and disappearing under the black cotton soil between the Bhima and the Kistna. This band is not more than 3 miles in width and is chiefly composed of hornblendic schists. Undoubted traces of old workings have been found in this locality, and from

The practice of shifting cultivation in forests, or *pode*, which was very common some years ago, is now strictly prohibited; but illicit clearances for temporary cultivation are sometimes made, and, when found out, departmental punishment is inflicted on the offenders.

Several grasses are known to possess economic properties. The fibres of *mannakopri* and *modian* are extensively used for making ropes, stringing cots, and various agricultural uses. If properly treated, these might also prove suitable for manufacturing paper. Among other minor products, *mahua* flowers are of importance as being generally used for distilling country liquor.

Mines and  
minerals Coal

The Hyderabad State is rich in minerals, chief among which may be mentioned the extensive coal-measures of WARANGAL and the gold-mines of LINGSUGUR. The coal-field of Singareni was discovered by Dr. King of the India Geological Survey so far back as 1872. Active operations were, however, delayed till 1886, when the Hyderabad (Deccan) Company obtained a concession and opened the mine at Singareni, which is the only mine profitably worked at present. Four distinct seams have been discovered in the Singareni field. The first varies in thickness from 30 to 50 feet and is composed of alternating layers of coal and carbonaceous shale, the former being of tolerably good quality and supplying a fair steam coal. The second seam, lying about 100 feet below the first consists of shaly coal. Similarly, the third seam, which is about 30 to 40 feet below the second, consists of a hard shaly coal; and as the coal these two contain gives 30 per cent. of ash, they have been abandoned as being of no commercial value. The fourth seam, called the King seam after its discoverer, consists of the most