in 1900) and Irkutsk (49,106)—the capitals of West and East Siberia respectively; Blagovyeshchensk (37,368), Vladivostok (38,000). Tyumeñ (29,651) in West Siberia, head of Siberian navigation; Barnaul (29,850), capital of the Altai region; Krasnoyarsk (33,337) and Tobolsk (21,401), both mere administrative centres; Biysk (17,206), centre of the Altai trade; Khabarovsk (15,082), adminis­trative centre of the Amur region; Chita (11,480), the capital of Transbaikalia; Nikolsk (22,000); Irbit (20,064); Kolyvañ (11,703), the centre of the trade of southern Tomsk; Yeniseisk (11,539), the centre of the gold-mining region of the same name; Kurgan (10,579), a growing town in Tobolsk; and Minusinsk (10,255), in the southern part of the Yeniseisk province, trading with north-west Mongolia.

*Education.—*Education stands at a very low level. The chief town of every province is provided with a classical gymnasium for boys and a gymnasium or progymnasium for girls; but the education there received is not of a high grade, and the desire of the local population for "real schools" is not satisfied. Primary education is in a very unsatisfactory state, and primary schools very scarce. The petitions for a university at Irkutsk, the money required for which has been freely offered to the government, have been refused, and the imperative demands of the local tradesmen for technical instruction have likewise met with little response. The Tomsk University remains incomplete, and has only 560 students. There are nevertheless eighteen scientific societies in Siberia, which issue publications of great value. Twelve natural history and ethnological museums have been established by the exiles—the Minusinsk museum being the best. There are also twenty public libraries.

*Agriculture.—*Agriculture is the chief occupation both of the settled Russians and of the native population. South Siberia has a very fertile soil and yields heavy crops, but immense tracts of the country are utterly unfit for tillage. Altogether it is estimated that not more than 500,000 sq. m. are suitable for cultivation. The aggregate is thus distributed—192,000 sq. m. in West Siberia, 20,000 in Akmolinsk and Semipalatinsk, 100,000 in East Siberia, 85,000 in Transbaikalia, 40,000 in Amur, and 63,000 in Usuri. In the low­lands of West Siberia cultivation is carried on up to 61° N.@@1 On the high plains fringing the alpine tracts on the north-west it can be carried on only in the south, farther north only in the valleys, reaching 62° N. in that of the Lena, and in the alpine tracts in only a few valleys, as that of the Irkut. On the high plateau all attempts to grow cereals have failed, the wide trenches alone (Uda, Selenga, Jida) offering encouragement to the agriculturist. On the lower plateau, in Transbaikalia, grain is successfully raised in the Ner­chinsk region, with serious risks, however, from early frosts in the valleys. South-east Transbaikalia suffers from want of water, and the Buriats have to irrigate their fields. Although agriculture is carried on on the upper Amur, where land has been cleared from virgin forests, it really prospers only below Kumara and on the fertile plains of the Zeya and Silinji. In the depression between the Bureya range and the coast ranges it suffers greatly from the heavy July and August rains, and from inundations, while on the lower Amur the agriculturists barely maintain themselves by growing cereals in clearances on the slopes of the hills, so that the settlements on the lower Amur and Usuri continually require help from govern­ment to save them from famine. The chief grain-producing regions of Siberia are—the Tobol and Ishim region, the Baraba, the region about Tomsk and the outskirts of the Altai. The Minusinsk district, one of the richest in Siberia (45,000 inhabitants, of whom 24,000 are nomadic), has more than 45,000 acres under crops. Mining, the second industry in point of importance, is dealt with above.

*Land Tenure.*—Out of the total area of over 3,000,000,000 acres of land in Siberia, close upon 96 % belong to the state, while the cabinet of the reigning emperor owns 114,700,000 acres (112,300,000 in the Altai and 2,400,000 in Nerchinsk) or nearly 4 %. Private property is insignificant in extent—purchase of land being permitted only in the Amur region. (In West Siberia it was only temporarily per­mitted in 1860-1868.) Siberia thus offers an example of the nationali­zation of land unparalleled throughout the world. Any purchase of land within a zone 67 m. wide on each side of the trans-Siberian railway was absolutely prohibited in 1895, and the extent of crown lands sold to a single person or group of persons never exceeds 1080 acres unless an especially useful industrial enterprise is projected, and in that case the maximum is fixed at 2700 acres. The land is held by the Russian village communities in virtue of the right of occupation. Industrial surveys, having for their object the granting of land to the peasants to the extent of 40 acres per each male head, with 8 additional acres of wood and 8 acres as a reserve; were started many years ago, and after being stopped in 1887 were commenced again in 1898. At the present time the land allotments per male head vary greatly, even in the relatively populous region of southern Siberia. In the case of the peasants the allotments vary on an average from 32 to 102 acres (in some cases from 21·6 to 240 acres); the Transbaikal Cossacks have about 111 acres per male head, and the indigenous population 108 to 154 acres.

The total cultivated area and the average area under crops every year have been estimated by A. Kaufmann as follows@@2:—

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Province or Government. | Area cultivated, Acres. | Under Crops (Acres). | | |
| Total. | Average per House­hold. | Average per 100 Inhabit­ants. |
| Tobolsk | 5,670,000 | 3,270,000 | 13∙2 | 243 |
| Tomsk . | 8,647,000 | 5,259,000 | I5∙7 | 310 |
| Yeniseisk | 1,830,000 | 977,000 | 13∙0 | 267 |
| Irkutsk . | 1,800,000 | 910,000 | 13∙2 | 265 |
| Transbaikalia . | 1,415,000 | 872,000 | 9·4 | 159 |
| Yakutsk  Amur (Russians) South Usuri | 81,000 | 43,000 | 0∙8 | 16 |
| 143,000 | 143,000 | 19∙4 | 275 |
| (peasants only) | 151,000 | 151,000 | 24∙0 | 375 |
|  | 19,737,000 | 11,625,000 |  |  |

These figures are somewhat under-estimated, but the official figures are still lower, especially for Tomsk. Tillage is conducted on very primitive methods. After four to twelve years’ cultivation the land is allowed to lie fallow for ten years or more. In the Baraba district it is the practice to sow four different grain crops in five to seven years and then to let the land rest ten to twenty-five years. The yield from the principal crops fluctuates greatly; indeed in a very good year it is almost three times that in a very bad one. The southern parts of Tobolsk, nearly all the government of Tomsk (exclusive of the Narym region), southern Yeniseisk and southern Irkutsk, have in an average year a surplus of grain varying from 35 to 40% of the total crop, but in bad years the crop falls short of the actual needs of the population. There is considerable move­ment of grain in Siberia itself, the. populations of vast portions of the territory, especially of the mining regions, having to rely upon imported corn. The forest area under supervision is about 30,000,000 acres (in Tobolsk, Tomsk, Yeniseisk and Irkutsk), out of a total area of forest land of 63,000,000 acres.

As an independent pursuit, live-stock breeding is carried on by the Russians in eastern Transbaikalia, by the Yakuts in the province of Yakutsk, and by the Buriats in Irkutsk and Trans­baikalia, but elsewhere it is secondary to agriculture. Both cattle-breeding and sheep-grazing are more profit­able than dairying; but the Kirghiz herds are not well tended, being left to graze on the steppes all the year, where they perish from wild animals and the cold. The live stock includes some 180,000 camels.

Bee-keeping is widelycarried on, especiallyinTomsk and the Altai. Honey is exported to Russia. The seeds of the stone-pine are collected for oil in West Siberia.

*Hunting.—*Hunting is a profitable occupation, the male population of whole villages in the hilly and woody tracts setting out in October for a month’s hunting. The sable, however, which formerly con­stituted the wealth of Siberia, is now exceedingly scarce. Squirrels, bears, foxes, arctic foxes, antelopes and especially deer in spring are the principal objects of the chase. The forests on the Amur yielded a rich return of furs during the first years of the Russian occupation, and the Amur sable, although much inferior to the Yakutsk and Transbaikalian, was largely exported.·

*Fishing.—*Fishing is a valuable source of income on. the lower courses of the great rivers, especially the Ob. The fisheries on Lake Baikal supply cheap food (the *omul*) to the poorer classes of Irkutsk and Transbaikalia. The native populations of the Amur—Golds and Gilyaks—support themselves chiefly by fishing, when the salmon enters the Amur and its tributaries in dense masses. Fish *(e.g.* the *keta,* salmon and sturgeon) are a staple article of diet in the north.

*Manufactures.—*Though Siberia has within itself all the raw produce necessary for prosperous industries, it continues to import from Russia all the manufactured articles it uses. Owing to the distances over which they are carried and the bad organization of trade, all manufactured articles are. exceedingly dear, especially in the east. The manufactories of Siberia employ less than 25,000 workmen, and of these some 46% are employed in West Siberia. Nearly one-third of the total value of the output represents wine­spirit, 23 % tanneries, 18 % tallow-melting and a considerable sum cigarette-making.

It is estimated that about one-half of the Russian agricultural population supplement their income by engaging in non-agricultural pursuits, but not more than 18 to 22% carry on domestic trades, the others finding occupation in the carrying trade—which is still important, even since the construction of the railway—in hunting (chiefly squirrel-hunting) and in work in the mines. Domestic and petty trades are therefore developed only round Tyumeñ, Tomsk and rkutsk. The principal of these trades are the weaving of carpets —about Tyumeñ; the making of wire sieves; the painting of ikons or sacred images; the making of wooden vessels and of the necessaries for the carrying trade about Tomsk (sledges, wheels, &c).;

@@@1 The northern limits of agriculture are 60° N. on the Urals, 62° at Yakutsk, 61° at Aldansk, 54° 30' at Udskoi., and 53°to 54° in the interior of Kamchatka (Middendorff, *Sibirische Reise,* vol. iv.).

*@@@2 Russian Encyclopaedic Dictionary,* vol. lix. (1900).