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CAUCASIA

LONDON:
PUBLISHED BY H.M. STATIONERY OFFICE.

1920

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CAUCASIA

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EDITORIAL NOTE

In the spring of 1917 the Foreign Office, in connexion with the preparation which they were making for the work of the Peace Conference, established a special section whose duty it should be to provide the British Delegates to the Peace Conference with information in the most convenient form—geographical, economic, historical, social, religious, and political—respecting the different countries, districts, islands, &c., with which they might have to deal. In addition, volumes were prepared on certain general subjects, mostly of an historical nature, concerning which it appeared that a special study would be useful.

The historical information was compiled by trained writers on historical subjects, who (in most cases) gave their services without any remuneration. For the geographical sections valuable assistance was given by the Intelligence Division (Naval Staff) of the Admiralty; and for the economic sections, by the War Trade Intelligence Department, which had been established by the Foreign Office. Of the maps accompanying the series, some were prepared by the above-mentioned department of the Admiralty, but the bulk of them were the work of the Geographical Section of the General Staff (Military Intelligence Division) of the War Office.

Now that the Conference has nearly completed its task, the Foreign Office, in response to numerous inquiries and requests, has decided to issue the books for public use, believing that they will be useful to students of history, politics, economics, and foreign affairs, to publicists generally and to business men and travellers. It is hardly necessary to say that some of the subjects dealt with in the series have not in fact come under discussion at the Peace Conference; but, as the books treating of them contain valuable information, it has been thought advisable to include them.

It must be understood that, although the series of volumes was prepared under the authority, and is now issued with the sanction, of the Foreign Office, that Office is not to be regarded as guaranteeing the accuracy of every statement which they contain or as identifying itself with all the opinions expressed in the several volumes ; the books were not prepared in the Foreign Office itself, but are in the nature of information provided for the Foreign Office and the British Delegation.

The books are now published, with a few exceptions, substantially as they were issued for the use of the Delegates. No attempt has been made to bring them up to date, for, in the first place, such a process would have entailed a great loss of time and a prohibitive expense; and, in the second, the political and other conditions of a great part of Europe and of the Nearer and Middle East are still unsettled and in such a state of flux that any attempt to describe them would have been incorrect or misleading. The books are therefore to be taken as describing, in general, *ante-bellum* conditions, though in a few cases, where it seemed specially desirable, the account has been brought down to a later date.

G. W. PROTHERO,

General Editor and formerly
Director of the Historical Section.

January 1920.

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I. GEOGRAPHY PHYSICAL AND POLITICAL

TRANSCAUCASIA

(1) Position and Frontiers

Transcaucasia in Asiatic Russia consists of the following six Governments, three Provinces, and two Districts:

	Square Miles.		*Square Miles.*
Black Sea (Chernomoria) . .	3,220	Elisavetopol . .	16,991
Kutais . . .	8,145	Batum . . .	2,693
Tiflis . . .	15,770	Kars . . .	7,239
Baku . . .	15,061	Daghestan . .	11,471
Erivan . . .	10,725	Zakatali . . .	1,539
		Sukhum . .	2,545
		Total . . .	95,399

The northern boundary (650 miles in length) runs from Cape Taman, on the eastern side of the Straits of Kerch, along the summits of the Caucasian chain as far as Donos Mta, and thence along the north-west frontier of Daghestan to the Bay of Agrakhan on the Caspian. The western frontier, about 400 miles long, is formed by the coast of the Black Sea from the peninsula of Taman to Cape Kopmush, south of Batum. The southern frontier falls into two divisions, the Russo-Turkish and the Russo-Persian. The former starts from Cape Kopmush and runs for 348 miles south-east to Mount Ararat, where the boundaries of Russian, Turkish, and Persian territory meet. The Russo-Persian boundary (350 miles) runs south-east to a few miles east of Ordubad, where it turns to the north-east as far as the village of Karakyavendikli; thence it again turns south-east and finally reaches the

Caspian at Fort St. Nicholas on the Astara. The eastern frontier, some 450 miles in length, is formed by the Caspian Sea from the Bay of Agrakhan to the River Astara.

Geographically Transcaucasia is so placed that, with the development of communications, it should reap considerable advantages from the commercial development both of northern Persia and of north-eastern Asia Minor.

(2) Surface, Coasts, and River System

Surface

Transcaucasia is divided across the centre from west to east by the two valleys of the Rion and Kura, the head-waters of which are separated by the low ridge of the Suram Mountains, connecting the Caucasus with the Armenian Highlands. These valleys run west and east into the Black and Caspian Seas respectively. They are roughly equivalent to the Governments of Kutais (the Rion valley), Tiflis, Elisavetopol, and Baku. The Governments of Kutais and Tiflis and parts of Batum form the region known as Georgia.

The Rion valley is narrowed in its upper part by the mountainous district of Svanetia, but begins to broaden west of Kutais, and becomes a flat, marshy plain. The Kura valley narrows about Tiflis, and then widens till, at the Mughan steppe, it is over 100 miles broad. The valley floor slopes gently east from 1,200 ft. at Tiflis to 500 ft. in the middle of its course, and 85 ft. below sea level at the Caspian. The only interruption is caused by a plateau of between 2,000 and 3,000 ft. along the southern foot-hills of the eastern Caucasus in the region known as Kakhetia.

The soil in the Rion and upper Kura valleys is extraordinarily fertile. On the southern slope of the Caucasus, in fact, almost every available patch of ground is successfully utilized for agriculture, even up to a height of 7,000–8,000 ft. Most of the steppes in the lower Kura valley are too dry to be cultivated without the aid of irrigation.

The Caucasus range dominates the whole of Transcaucasia. It is over 400 miles long, while its outskirts stretch for 150 miles and 100 miles respectively to Baku and Novorossiisk. It runs from west-north-west to east-south-east between 45° and 40° north latitude, and falls naturally into three well-defined sections: a western section from Anapa to the upper valley of the Kodor, not far from Sukhum; the main central section from the upper Kodor valley to Mount Kazbek; and an eastern section, including the Highlands of Daghestan, and extending from Mount Kazbek to Baku.

The *western* section commences with hills, which rise gradually to a height of 7,000 ft. at the source of the Kodor. The mountains fall abruptly to the Black Sea.

The *main central* section is entirely mountainous, the general elevation being within the limit of perpetual snow, which on the north side is 9,500 ft. and on the south 10,800 ft. The five highest peaks are Mount Elbruz (18,470 ft.), Koshtan Tau (16,539 ft.), Dikh Tau (16,925 ft.), Janga (16,660 ft.), and Kazbek (16,546 ft.); and there are many others over 14,000 ft. The chief passes are the Mamison Pass (9,253 ft.), across which runs the Ossetian Military Road, connecting Kutais with Vladikavkaz; and the Dariel Pass (4,122 ft.), over which the Georgian Military Road runs from Vladikavkaz to Tiflis. There are no large lakes, and few tarns.

The *eastern* section broadens as it approaches the Caspian, including on the northern side of the main range a triangular area known as the Daghestan Highlands. The country here is difficult of access, and only one military road leads up from the River Terek in Ciscaucasia, the eleven passes being mere bridle-paths. The general elevation of the main range rarely exceeds the line of perpetual snow, but there are three peaks of over 14,000 ft. From Shemakha the elevation declines rapidly; at Baku there are only low hills. The Gudam Pass, 7,977 ft., which forms the western limit of this section, is the best in Transcaucasia. Over the Vantliashet Pass runs the road from Petrovsk to Tiflis.

The Caucasus is joined to the Little or Anti-Caucasus by the Suram or Mezghian Mountains, a low range averaging 3,627 ft. in height, running from north to south and separating the head-waters of the Rion from those of the Kura.

The Little Caucasus is formed by the eastern and central part of the Russian Armenian Highlands, which occupy the southern half of Transcaucasia, and may be divided into two areas: the mountains which surround Lake Gokcha, of which the highest peak is Mount Alagez (13,436 ft.); and the mountain plateau lying to the west of these, including the plateau on which stand the towns of Alexandropol and Kars. The latter area is somewhat bleak and rugged and is intersected with numerous mountain streams in deeply cut valleys.

The western and southern parts of the Russian Armenian Highlands are composed of spurs of the Pontic Mountains and the Eghri Dagh Mountains. The latter divide the streams which flow into the Black Sea and Caspian from those which enter the Persian Gulf. There is a general elevation of 8,000 ft.; the mountains are bare of timber, have little water, and are very rugged.

The ranges composing western and southern Russian Armenia thus stretch from the south-east corner of the Black Sea 400 miles to the south-east, as far as the Kara Dagh and Salavat Mountains in northern Persia, which link them to the Elburz Mountains at the southern end of the Caspian.

Coasts

Transcaucasia includes about 400 miles of the Black Sea coast. From Cape Taman on the eastern side of the Straits of Kerch, as far as the roadstead of Anapa, the coast line is low and monotonous, with sunken reefs close to the shore. From this point south-east to Sukhum, there are steep cliffs, with deep water close inshore, and occasional beaches at the mouths of small rivers. From Sukhum to Nikolaevsk, south of Poti, the coast is low and flat; and inland from Poti there is

an immense flat alluvial plain forming the delta of the rivers Ingur and Rion. South of Nikolaevsk mountains replace the plain. For a few miles south-west of Batum the shore is formed by the flat delta of the Chorokh.

The eastern frontier of Transcaucasia extends for 450 miles along the Caspian Sea. From the Bay of Agrakhan to the small port of Petrovsk the coast is flat and inclined to be marshy. From thence to a few miles south of Derbent (Derbend) it is steep, but drops farther on to a flat area formed by the deltas of many small rivers. After another rise comes the long, low Apsheron Peninsula, off which there are several islands. From Baku the coast line trends south-west as far as Cape Vezir, beyond which is the Gulf of Salyani. The mountains then begin to approach the sea, and rise to a height of 6,000 ft.; they are thickly wooded to the water's edge.

River System

Most of the rivers are mountain torrents, and, with the exception of the wider and navigable portions of the Rion and Kura, they are all at times fordable. As a rule there is most water in them during the summer and least during the winter. The chief rivers are the Rion, Ingur, and Chorokh, flowing into the Black Sea, and the Kura with its affluents, the Alazan and Aras (Araxes), flowing into the Caspian.

The *Rion* (100 miles) rises between Koshtantau and Kazbek and enters the Black Sea at Poti.

The *Ingur* rises in the highest part of the Caucasus, in the north of the Government of Kutais, and flows in a south-westerly direction, reaching the Black Sea at Anaklia.

The *Chorokh* rises in Turkish territory, and only a small part of its course lies within Caucasia. It crosses the border from Turkish Armenia in the neighbourhood of the mountain region of Diduve, south of Artvin, and reaches the sea between Batum and Gonia.

The *Kura* (830 miles) rises in the high plateau north

of Kars and flows north into the Kartalian plain. After turning east through Gori and Tiflis it follows a south-easterly course to the Caspian, which it enters by three mouths. During the months of March, April, and May it is flooded, and inundates the surrounding country at some points to a width of 3 miles. Its chief tributaries are the Alazan on the left bank and the Aras on the right.

The *Aras* (500 miles) rises in Turkish territory, entering Transcaucasia between the villages of Khorasan and Karakurt. It flows east till it is joined on the left bank by the Arpa Chai, passing through the Erivan plateau, and then takes a wide bend towards the south past Nakhichevan as far as Julfa, after which it turns east to Ordubad and then north-east, finally discharging into the Kura. The current is very rapid in the upper course, and also between Julfa and Ordubad, but is moderate from Erivan as far as Nakhichevan. There are many islands in the lower reaches.

In the Russian Armenian Highlands are the only important lakes in Transcaucasia: Gokcha, 540 square miles, at a height of 6,340 ft.; Chaldir, 33 square miles, at a height of 6,520 ft.; and several smaller ones, all at heights between 6,500 and 7,000 ft.

(3) Climate

It is possible to divide Transcaucasia into three climatic areas: the Black Sea basin, the Caspian basin, and the Armenian Highlands.

West of the Suram Mountains, which form a dividing line between the Black Sea and Caspian basins, the atmosphere is moist and temperatures are moderate. The winter is mild, and, though snow falls, it rarely lies; the summer is hot and conditions are unhealthy on the Black Sea littoral. The annual rainfall averages from 60 to 80 inches. Periodical changes of wind are not uncommon, and cause sudden alterations of temperature. The effect of the climate on the country is noticeable;

	Locality.	Height in feet above sea level.	Mean Temperature in Degrees Fahrenheit.				Annual Rainfall in inches.	Prevailing Wind.		
			Jan.	May.	August.	Annual.		Winter.	Spring.	Summer.
Black Sea Basin	Batum	173	41	61	78	58	80·15	S.E.	—	N.W.
	Kutais	480	40	66	76	58	44·35	N.E.	N. by E.	W.N.W.
	Poti	10	43	62	76	58	65·30	S.E.	S.S.W.	S.W. by N.
	Sukhum	30	44	64	76	59	40·47	S.E.	S.W.	S.W.
Caspian Sea Basin	Baku	53	38	64	78	58	12·86	—	N.N.W.	N. by E.
	Lenkoran	65	37	66	77	58	—	N.W.	S.E.	S.E.
	Tiflis	1,343	33	63	76	55	18·44	N.E.	N. by W.	N.W.
	Temir Khan Shura (Daghestan)	1,510	26	—	73	51	17 to 21	S.W.	—	N.W.
Armenian Highlands	Alexandropol	5,090	13	53	66	42	13·40	—	N.E. by N.	N.E.
	Aralikh	2,606	20	65	79	53	6·08	—	N.N.W.	N.W. by N.
	Erivan	3,174	13	69	80	53	—	—	S.E.	N.E.
	Shusha	3,870	33	56	66	49	20·79	—	—	S.E.

vegetation is abundant, and near the sea semi-tropical in its luxuriance.

East of the Suram Mountains the climate is dry, with extremes of heat and cold. The summer is oppressively hot, particularly in the Kura valley. The Caspian basin, as a whole, suffers from drought, and in the Baku district violent sand and dust storms are common.

The climate in the Armenian Highlands shows characteristics similar to those of the two areas above described. At Alexandropol snow lies till the middle of April, spring lasts a fortnight, and the summer parches the country to the condition of a desert. The Aras valley has a somewhat less rigorous climate.

Recent climatic statistics for the three areas are shown in the table given on p. 7.

(4) Sanitary Conditions

Sanitation in anything like the modern sense of the word is practically unknown in Transcaucasia. Medical facilities, except in the larger towns, are practically non-existent. Constant epidemics of malaria are caused by the marshy conditions prevailing on the Black Sea coast, and in the valleys of the Rion, Aras, and Kura. Goitre and epilepsy are common among the natives of Svanetia. Leprosy occurs among the poorer classes of the Persian population. Elisavetopol is notorious for the so-called Sartian sickness, a kind of skin eruption.

(5) Race and Language

Of the numerous peoples represented in Caucasia, some belong to the white race, others to the Mongolian or yellow race.

I. The inhabitants who are of white race belong to the Indo-European, Semitic, or Caucasian families.

Indo-European Family.—Everywhere there are *Russian* officials, merchants, and soldiers, and there are also large numbers of peasants, who are either voluntary colonists or religious exiles from European Russia. They speak both Great and Little Russian.

Germans, who came originally from Württemberg, live chiefly in the Tiflis Government and at Helenendorf near Elisavetopol.

There are some 14,000 *Greeks* in Tiflis, near the Turkish frontier, and in Chernomoria. They speak a corrupt form of Greek.

The *Iranians* include *Persians* at Tiflis, who number several thousands; the *Tates*, *Tats*, or *Tads*, descendants of Persian conquerors, who live chiefly in Baku, and speak either Persian or Tatar; the *Talyshes*, who are also of Persian descent, and live in the Lenkoran district; the *Kurds*, who come from the mountains on the Assyrian border, and have spread over a large part of Asia Minor and the Caucasus; and the *Ossetes* (calling themselves *Iron*), who occupy the central mountainous region from Mount Elbruz to Mount Kazbek in the east, and from Vladikavkaz in Ciscaucasia to the district round Dushet and Gori in the Tiflis Government.

The *Armenians* form the merchant and trading class in most of the towns. Armenian peasants are chiefly confined to the Governments of Erivan and Elisavetopol; they are more virile than the townbred Armenians, and cannot be easily distinguished from the Tatars.

Semitic Family.—There are over 45,000 *Jews* in the Tiflis and Kutais Governments and in Daghestan. The Jews of Tiflis and Kutais speak Georgian, those of Daghestan local dialects.

Caucasian Family.—This family is divided into three groups: the Kartalian or southern, the western Highland, and the eastern Highland. The language of the Kartalian group, except when otherwise stated, is Georgian; there are many dialects. The language is distinct from those of the Indo-European family, but has few affinities with other main Caucasian groups. To the *Kartalian group* belong the *Georgians* or *Gruzians*, who form the majority of the population of the Government of Tiflis, inhabiting the upper reaches of the Kura from Akhaltsikh to below Tiflis

and the Yora and Alazan plains as far as Zakatali. The *Imeretians* live in the Kutais Government, west of the Suram Mountains as far as the River Tskhenis Tskhali. The *Gurians* are found between the Rion and the Chorokh. The *Adzharians* and *Kabuletians* live in the Adzharis Tskhali valley in the Batum Province. The *Khevsurs*, *Tushes*, and *Pshavs* are wild mountain tribes belonging to the central Caucasus. The *Mingrelians* inhabit the country between the Rion, Ingur, Tskhenis Tskhali, and the Black Sea. There are a few *Lazis* in the south-west corner of Transcaucasia; most of this tribe live in Turkish territory in Lazistan. The *Svanetians* live in the valleys of the upper Ingur and Tskhenis Tskhali on the southern slopes of the main Caucasian chain.

To the *western Highland group* belong the tribes who call themselves *Adighé*, but whom the Russians call *Cherkess* (Circassians). They used to inhabit the Caucasus range from Taman to Pitsunda and the left bank of the Kuban in Ciscaucasia. They speak a harsh dialect of their own. The *Abkhasians*, who speak a similar dialect, occupy the Black Sea coast from Pitsunda to the Ingur.

Of the peoples in the *eastern Highland group*, the *Chechentsy* or *Chechens* live mostly in the Terek Province, but there are still a few on the Daghestan frontier. The *Lesghians*, including the *Avar*, *Darginian*, and *Kurinian* tribes, are the chief occupants of the Daghestan Highlands. They speak a guttural dialect of their own, though in the east the Azarbaijan Tatar patois is in common use.

II. Of the peoples of Mongolian race the chief are the *Tatars*, who mostly come from the Persian province of Azarbaijan and occupy both banks of the middle and lower Kura, intermingled with Armenian and Kurd colonies. Their language is akin to Turkish, and is the *lingua franca* of western and southern Transcaucasia. There are a few *Nogaitsy* Tatars in Daghestan. The Tatars in Kars Province are known as the *Karapapakhs*. The *Kumyks*, who live on the Daghestan

coast north of Derbent, are closely akin to the Azarbaijan Tatars. The *Turks* or *Osmanli* live chiefly in the Provinces of Kars and Batum. In the Province of Kars there are a few *Turcomans*.

To sum up for Transcaucasia, it may be said that the four important peoples are the Russians, Georgians, Armenians, and Tatars. It is upon these peoples and their mutual relations that the future of the country depends.

The official census of 1897 gave statistics of the various peoples in Transcaucasia. Though with regard to the more remote tribes these figures are only approximate, they are the best available and have served as a basis for all subsequent estimates. The distribution of the various peoples is shown in the following table:

GOVERNMENTS AND PROVINCES[1]

	Baku.	*Daghestan.*	*Elisavetopol.*	*Kars.*	*Kutais.*	*Tiflis.*	*Chernomoria.*	*Erivan.*
Abkhasians –	2	28	—	7	59,469	46	2	—
Armenians –	52,233	1,636	292,188	73,406	24,043	196,189	6,285	441,000
Chechens –	10	757	13	63	46	2,207	5	3
Cherkess –	18	37	10	71	165	—	1,939	1
Czechs – –	149	19	25	11	167	245	1,290	36
Georgians –	1,616	375	1,239	526	343,929	465,537	976	566
Germans –	3,430	261	3,194	430	1,065	8,340	748	210
Greeks – –	278	38	558	32,593	14,482	27,118	5,969	1,323
Imeretians –	23	20	119	7	270,513	1,546	158	9
Jews – –	8,172	7,361	185	1,138	7,006	5,188	990	850
Kabards –	23	31	—	19	7	14	—	—
Karachais –	—	4	29	6	16	67	—	3
Kumyks –	26	51,209	2	21	24	25	3	5
Kurds – –	8	22	3,042	42,968	1,824	2,538	22	49,389
Lesghians –	62,972	450,912	22,601	524	446	43,094	72	124
Lithuanians –	272	520	116	892	450	1,263	47	384
Mingrelians –	39	10	37	10	238,655	498	304	13
Moldavians –	48	66	105	46	197	198	923	29
Nogai – –	—	1,909	—	1	—	18	—	12
Osmanli –	1,255	18	9	63,547	46,665	24,722	650	245
Ossetes –	113	113	96	520	4,240	67,268	12	112
Persians –	5,973	1,720	338	568	1,022	1,991	210	235
Poles – –	1,439	1,630	616	3,243	1,938	6,282	731	1,385
Russians –	77,681	16,044	17,875	27,856	23,443	85,772	34,546	13,937
Tatars –	485,146	32,143	534,086	2,347	750	107,383	291	313,176
Tates – –	89,519	2,998	1,753	6	34	16	2	709
Turcomans –	74	9	4	8,442	8	12	—	1

[1] The Province of Batum and the District of Sukhum are included in the Government of Kutais. The District of Zakatali is included in the Government of Tiflis.

It will be seen from the above figures that Russians form a majority in Chernomoria only, while the Armenians form a large majority in the Government of Erivan and the Province of Kars, the Georgians in the Governments of Kutais and Tiflis, the Tatars in the Governments of Baku and Elisavetopol, and the Lesghians in Daghestan.

(6) Population

Distribution and Density

The Russian official census of 1897 gave the total population of Transcaucasia as about 5,565,000. Since then various estimates have been made, based upon this census and the yearly increase of the population so far as it could be ascertained.

The Statesman's Year Book for 1918 gives the following statistics (approximate) for the population on January 1, 1915:

Area.	*Population.*	*Density per Square Mile.*
Baku	1,119,600	75
Batum	186,000	69
Chernomoria	201,800	63
Daghestan	732,600	64
Elisavetopol	1,117,200	66
Erivan	1,034,800	96
Kars	403,000	56
Kutais	1,070,300	130
Sukhum	147,600	58
Tiflis	1,394,800	88
Zakatali	101,800	66
Total	7,509,500	79

From this it will be seen that the population is densest in the Governments of Kutais, Erivan, and Tiflis, where the soil is richest and agriculture is the general occupation. The density of the population in the Government of Baku is largely due to the existence of the oil-fields.

Towns

Tiflis (population in 1913, 327,800) is the capital of Caucasia and the largest town. Next in size is *Baku*

(population in 1913, 237,000). Other important towns are *Novorossiisk* (66,700), *Elisavetopol* (63,400 in 1910), *Kutais* (53,900), *Batum* (46,000), and *Erivan* (34,000). For further particulars concerning these see below, pp. 42 and 77.

Movement

Recent statistics are not available, but the annual rate of increase can be roughly estimated at 60,000. It is probable that the Armenians increase at a more rapid rate than the other nationalities in Transcaucasia. The death-rate, particularly among children, is certainly high; for this the unhealthy climate in the west, the rigorous winters in the east and central parts, and the ignorance of the natives are responsible.

Accurate statistics of emigration are not available. Since the great migration of the Cherkess (to Anatolia) and other Mohammedan tribes (to Turkey), which depopulated much of the western coast in the latter half of the nineteenth century, emigration has tended to be spasmodic. A certain number of Armenians emigrate to America. Many tribes still live what is practically a nomadic life; and for those who are not too proud to do manual labour the towns form a continual attraction.

Immigrants are largely Russians, both official and non-official. The latter come very largely from South Russia and settle in the central governments or, for industrial purposes, at Baku. There is a small annual influx of foreigners, but not to the same extent as in Ciscaucasia. Periodically there have been Armenian immigrations from Turkish Armenia, though these have lately been regarded unfavourably by the Government.

CISCAUCASIA

(1) Position and Frontiers

Ciscaucasia, a district of European Russia, is the northern part of the region of Caucasia. It is bounded on the west by the Black Sea and the Sea of Azov;

on the south by the Caucasus and the Province of Daghestan; on the east by the Caspian Sea; and on the north by the Kuma-Manych depression, a chain of narrow shallow lakes and river beds filled at certain seasons with water, connecting the Manych, a tributary of the Don, with the Kuma, which flows into the Caspian Sea.

(2) Surface, Coasts, and River System

Surface

The parts of the Caucasus range which are included in Ciscaucasia are (1) the *Black Sea ridge*, 155 miles in length, stretching from Anapa on the coast to Mount Oshten (9,369 ft.). These mountains are covered with thick woods. (2) The *Kuban Caucasus*, 120 miles in length, which extends from Mount Oshten to Mount Elbruz. Here the heights vary from 3,000 to 6,000 ft. (3) The *Central Caucasus*, which contains various subdivisions, included for the greater part in Transcaucasia.

The passes across the Caucasus from Ciscaucasia to Transcaucasia are few and are at high altitudes, varying from 9,000 to 12,000 ft. above sea-level.

The northern foot-hills of the Caucasus form on both sides of the River Terek the mountainous region of the Kabarda. North-eastwards from this stretches highland country, which merges into a depression northwards from Stavropol. Between these two there rises the isolated mass of the Beshtau Mountains.

The plains of Ciscaucasia slope gently from the base of the Caucasus Mountains towards the Kuma-Manych depression. In the centre is the Stavropol plateau, which varies in height from 2,000 to 2,500 ft. and separates the tributaries of the River Kuban from those of the Terek and the Kuma. Towards the foot-hills of the Caucasus the plateau is covered with dense forests; on the west it merges into steppes or ends in the reedy marshes of the Kuban delta. In the north

and east the steppes towards the Caspian and the Kuma-Manych depression are barren and stony or sandy.

Coasts

The coast of Ciscaucasia is flat, and the only ports worth noting are Anapa, Temryuk, and Yeisk. The Ciscaucasian shores of the Caspian Sea are surrounded by steppes and are flat throughout. They are formed chiefly of the alluvial land of the deltas of the rivers Terek and Kuma.

River System

The rivers of Ciscaucasia rise in the central Caucasus. There are three river basins, corresponding with the three administrative divisions.

The River *Kuban* rises on the northern side of Mount Elbruz. It is formed by the Khursuk and the Uchkulan, which unite at Uchkulan. It retains its character as a mountain stream until it enters the plain at Batalpashinsk, at a height of 1,075 ft. The middle course extends from the Cossack settlement of Nevinnomysk as far as Ekaterinodar. The river bed is wide, but the river itself is a mere streamlet except in times of flood. After the Kuban turns definitely westward the fall is only about 20 inches in a mile.

The largest tributary of the Kuban is the Laba (200 miles), a canal from which at Chamlik irrigates several thousand acres of steppe land. Another large tributary is the Byelaya (150 miles). The Kuban flows by many mouths, forming several islands and *limans* (marshy lagoons), into the Gulf of Kyzyltash. The river is frozen from December to March. In the lower part of its course inundations are frequent, and the district is marshy.

The *Terek* (382 miles) rises on the slopes of Mount Kazbek at Zilga-Khokh, and pierces the mountain range by the Dariel gorge, which it leaves at Vladikav-

kaz, on the high plains to the north of the Caucasus. The Terek bends first north-west, then east, past Mozdok (altitude 441 ft.) and Kislyar (29 ft. below sea-level), and enters the Caspian Sea by several branches. The delta is sixty miles wide, and the river forms large sand-banks opposite its mouths. It does not freeze every year. The chief tributary is the Zunzha, all the others being mere mountain torrents.

On the left bank of the lower river are great steppes, while shifting sand-dunes cover an extensive tract from Mozdok northwards; near the delta is the depression of Kislyar, covered with impenetrable salt morasses, while to the right of the Terek is fertile country.

The *Kuma* (about 400 miles) rises on the northern slope of the Caucasus, and flows by several branches through the sandy steppes towards the Caspian. At times of flood it reaches the sea, but at other seasons its channels disappear in the sandy steppes along the coast. Its tributaries are the Karamyk, Podkumka, and Buivola.

(3) Climate

The climate is continental, and in the winter the cold is severe.

Temperature.

	Mean Annual Temp.	*January (Mean).*	*July (Mean).*
Vladikavkaz (altitude 2,345 ft.)	47·7° F.	23° F.	69° F.
Stavropol (altitude 2,030 ft.)	47° F.	24° F.	79° F.
Pyatigorsk	48° F.	25° F.	71° F.

Annual Rainfall.

Terek Province

Mountainous districts	37 in.
Steppes	10 to 20 in.

Vladikavkaz

34·2 in., of which 25·8 in. falls between April and September.

In the 'black earth' steppes of Ciscaucasia the maximum rainfall is at the beginning of summer; on the eastern steppes, which extend along the Caspian Sea, the maximum is reached in March.

(4) Sanitary Conditions

The science of hygiene is unknown in Caucasian villages, and medical aid is absent or inaccessible in country districts. Malaria is the characteristic disease of Caucasia, but small-pox, scarlet fever, measles, dysentery, typhus, and pneumonia are prevalent and cause many deaths.

In the fashionable health resorts, such as Kislovodsk, Jelieźnovodsk and Pyatigozsk, there are very up-to-date sanatoria established on the latest German lines, to which people come from all parts of Russia to take the waters and the cure.

(5) Race and Language

Russians form 34 per cent. of the people of Ciscaucasia, and in the Government of Stavropol amount to 90 per cent. In the Province of Kuban 109 per 1,000 are Cossacks; in Terek the proportion is 179 per 1,000. Tatars live in the east and south-east, where they form 19·3 per cent. of the inhabitants. The remainder consists of Kalmucks, Turcomans, Nogai-Tatars, Armenians, Georgians, Germans, Poles, &c. (See also p. 8.)

(6) Population

The population of the three Ciscaucasian provinces on January 1, 1913, was 5,470,600, distributed as follows:

	Rural Population.	*Urban Population.*	*Total.*
Kuban . .	2,667,000	244,800	2,911,800
Stavropol .	1,232,400	79,700	1,312,100
Terek . .	1,015,100	231,600	1,246,700

Towns

Ekaterinodar (population in 1897, 65,697, now about 107,000), the capital of the Province of Kuban, is

situated on the left bank of the Kuban river, 100 miles from its mouth and 125 miles south of the Sea of Azov. Other towns are *Anapa* (population in 1897, 6,676), a port; *Batalpashinsk* (8,100); *Maikop* (in 1902, 34,191, now about 50,000); *Temryuk* (in 1897, 14,479), a fortified town and port; *Yeisk* (in 1897, 35,446, now about 50,000), a port on the Sea of Azov.

In the Province of Stavropol, *Stavropol* (population in 1897, 41,621, now about 60,000), which is strongly fortified, is the chief town.

In Terek, *Vladikavkaz* (population in 1897, 49,924, now variously estimated at 53,000 to 79,000) is the capital, and is an important centre of communications. Other towns are *Mozdok* (in 1897, 14,583), 50 miles north of Vladikavkaz; *Georgievsk* (11,532), a fortified town on the Podkumka; *Kislyar* (7,353), on the road from Astrakhan to Derbent; *Kislovodsk* (4,078), a Cossack town with hot saline springs.

On the steppes or prairies of the Caucasian Highlands and along the Kuban river there are many prosperous Cossack villages with considerable populations.

II. POLITICAL HISTORY

Chronological Summary

B. C. 323. Conquest by Alexander the Great.
302–237. Pharnawaz expels the Macedonians.
C. A. D. 318. Introduction of Christianity. Conflict with Persia.
371. Shapur II of Persia subdues the country.
446. Vakhtang I. Alliance with Persia.
571. Beginning of Bagratid dynasty.
640–734. Spread of Mohammedanism by the Arabs.
1048–64. Incursions of the Seljuk Turks.
1099–1125. Reign of David II.
1184. Accession of Tamara.
1236. Invasion of Ghenghiz Khan.
1386 and 1393–94. Invasions of Tamerlane.
1442. Partition of Georgia by King Alexander I.
1492. First appeal for Russian assistance.
1586. Defensive treaty with Russia.
1619. Russian intervention between Shah Abbas I and Teimuraz of Kakhetia.
1638. Mingrelia swears allegiance to Russia.
1650. Imeretia swears allegiance to Russia.
1717. Commercial treaty between Peter the Great and Persia.
1722. Russian expedition in the Caucasus.
1724. Russo-Persian Treaty. Cession of Caspian provinces to Russia.
1734. Surrender of Caspian provinces to Persia. Restoration of Bagratid dynasty.
1769. Heraklius obtains Russian assistance against the Turks.
1783. Treaty of Georgievsk. Heraklius declares himself vassal of Russia.
1801. Annexation of Georgia by Russia.
1813. Treaty of Gulistan between Russia and Persia.
1828. Peace of Turkmanchay. Final peace with Persia. War between Russia and Turkey.
1829. Peace of Adrianople.
1830. Risings in Daghestan.
1859. Surrender of Shamyl and his tribesmen.
1877. Russo-Turkish War. Ineffectual risings in the Caucasus.
1878. Treaties of San Stefano and Berlin. Acquisition of Batum, &c. Development of Baku oil-fields.

1902–5. Riots in Baku. Rising in Georgia.
1917. Treaty of Brest-Litovsk. Batum, &c., ceded to Turkey.
1918. Georgian, Armenian, and Daghestan Republics established.

(1) *Early History*

THE Caucasus was well named by the Arabs 'Jebel Assuni', the Mountain of Languages, for the great range shelters as many different tongues as the famous Tower of Babel.

The lands stretching from the valley of the Phasis (Rion) north-eastwards were known to the ancients as Colchis and Iberia. The name 'Georgia' came later to be applied to the kingdom whose nucleus is covered roughly to-day by the Government of Tiflis; at the height of its power Georgia ruled from the Caucasus to the Aras (Araxes), and from the Black Sea to the Caspian.

Recognized history begins with the conquest of the country by Alexander the Great in 323 B.C., and the subsequent expulsion of the Macedonian governors by Pharnawaz, son of a prince of the original dynasty and a Persian mother. The chronicles of the period that follows make constant mention of the Abkhasians, who held the Black Sea coast and range from the Phasis north-westwards; of the Asses or Osses (Ossetes), a Median tribe whose territory lay in the hills from Mount Elbruz to the Dariel Pass; and of the incursions of Mongol Khazars and Alans from the steppes of the Caspian Sea, to meet which the fortress of Dariel was built at the northern end of the defile in 140 B.C. Persia, in war and peace, was the predominant factor, though her hold on the allegiance of Caucasia was insecure.

At a later period the introduction of Christianity, about A. D. 318, reopened the conflict with Persia. Shapur II ravaged the country in 371, and the general left by him to hold the conquered lands built a fortress on the site of the present city of Tiflis.

The Georgians now began to seek help from their co-religionists in the Roman Empire, but Persia was

too near at hand to be resisted; and, when in 446 a strong king—Vakhtang I—arose in Georgia, although he re-established Christianity, he adopted a policy of union with Persia and assisted in the campaigns against the Roman Emperor Jovian. Vakhtang not only achieved great military successes, but built schools for his subjects and strengthened his frontiers. He also transferred the capital from Mtskhet to Tiflis.

(2) *Bagratid Dynasty. Struggle with Islam*

The line of Vakhtang failed in the sixth century; and, Byzantium's power being then in the ascendant, the Georgian throne was filled in 571 by a nominee of the Greek Emperor, one Guram, a Bagratid, whose descendants held the Georgian crown for the next twelve centuries. The supremacy of Byzantium in the Caucasus, always fiercely challenged by Persia, was finally extinguished by the Arabs, who from 640 onwards constantly invaded the Caucasian States and spread Islam amongst the pagan mountaineers. The successes of Musslimieh in 684 and of Abu Moslem in 734 ended in the undisputed sovereignty of the Caliphate; the Bagratid dynasty was, however, confirmed in the possession of the Georgian throne.

In the eleventh century the Seljuk Turks under Toghrul Bey and Alp Arslan twice laid Karthli (Georgia) waste, forced the king to embrace Islam, and sacked Tiflis. But the Georgians still resisted and clung to Christianity; they regained their religion and their freedom under David II, who bears the title of Restorer (1099–1125). The constant wars and invasions had split the country into separate kingdoms; cities and surrounding regions bestowed on emirs, vassals of the Seljuks, constituted a bewildering crowd of Moslem principalities, with each of whom in turn Christian Georgia was at war. The distant successes of the Crusaders had their effect on the Caucasus, and, fighting courageously against the encroaching Moslems, the Bagratid kings gradually won back their lost lands.

The great-granddaughter of David II, Thamar or Tamara, succeeded her warlike father Giorgi III in 1184 and cleared her country of invaders from the Caucasus to the Aras. Her son, Giorgi Lashi, 1212–23, added Gandja (now Elisavetopol) to Georgia; but his sister and successor, Rusudan, offended the Sultan of Khorasan, and his vengeful invasion was followed in 1236 by that of the hordes of Ghenghiz Khan, who ravaged the country and carried off Rusudan's son as hostage. Georgia next passed through the hideous devastations of Tamerlane in 1386 and 1393–4. Alexander I freed the country from Tatar rule (1413–42), but, having united Georgia as in the days of Pharnawaz, Vakhtang, and Tamara, he committed the irreparable error of dividing it between his three sons. Civil war broke out, and Guria, Mingrelia, Svanetia, and Abkhasia were lost for ever to the Georgian kings. Too weak to maintain themselves, the various states became the pawns of the Porte and Persia, the Turks taking Trebizond and Sukhum and establishing their hold on Mingrelia, Guria, and Imeretia, the larger portion of which territories accepted the Moslem faith. Karthli and Kakhetia, nominally under Persian vassalage, cast about for help.

(3) *Growth of Russian Influence*

On the northern side of the Caucasus, where the Khazars, now displaced by the Tatar hordes, had ruled, the growing power of Russia was making itself felt.

So early as 1492 the King of Kakhetia had sought Russian assistance against the Turks and Persians; and outposts of this new power appeared in the valley of the Terek in 1505, in the shape of Cossacks of Riazan, who, at first fugitives from their Tsar's wrath, were in 1579 holding territory near the present Grozni in the name of the Tsar, Feodor Ivanovich. Alexander II of Kakhetia appealed to him for help against the Tatar Shamkhal of Tarku; and in 1586 a treaty was concluded in which the Tsar exacted a yearly tribute in return

for his assistance. Co-operation between the new allies broke down at the first effort, which resulted in the annihilation of the Russians on the Sulak; and, although the Tsar assumed the titles of 'Lord of the Iberian Lands, of the Tsars of Georgia and of Kabarda', further defeat in 1604, at the hands of the Russian generals Burtuvlin and Pleshchagev, was a poor confirmation of these claims. The Georgians, however, continued to look for Russian intervention. In 1619 Teimuraz of Kakhetia, then in hiding, obtained the Tsar's intercession with Shah Abbas I of Persia, who had driven the last king, Alexander, from his throne on suspicion of treachery.

Mingrelia in 1638, and Imeretia in 1650, swore allegiance to Russia in return for help against the Porte, which the Tsars were not able to furnish; and the appeal of Vakhtang VI of Kakhetia to Peter the Great was little more efficacious. With a view to establishing trade with India by way of the Volga and Caspian, Peter had made a treaty with Persia in 1717, and he undertook an expedition in 1722 ostensibly to avenge an affront to his traders by the Lesghians, who were in revolt against Persia, then in the throes of the Afghan invasion. The expedition was, in fact, merely a pretext for annexing the Caucasian possessions of Persia. Peter took Derbent and Tarku, and established further Cossack settlements between the Terek and those of the Grebentsi, as the Cossacks about Grozni were termed; the treaty concluded by Peter with Turkey and Persia in 1724 gave to Russia Derbent, Baku, Daghestan, Astarabad, and Mazandaran, but acknowledged Turkey's suzerainty over Georgia. After the Persian revolution of 1734, however, Russia surrendered her Persian provinces to Nadir Shah, who expelled the Turks from Georgia, and restored the Bagratid dynasty. The Cossack settlements in the Caucasus remained and increased, gradually including Kumyks, Chechens, and Kabards. In 1763 the Prince of Little Kabarda became an Orthodox Christian and swore allegiance to the Tsar; and the fort of Mozdok was built for his protection

against the Lesghians. While Russia's influence grew in the east, in the western Caucasus the Ottomans took tribute from the Cherkess (Circassians) and the Abkhasians (nominally of the Moslem faith), continued to dominate Mingrelia and Imeretia, and held, as a Pashalik of the Empire, Akhaltsikh, the centre of the slave-trade in Georgian boys and girls. In 1769 King Heraklius (Irakli) of Georgia made an effort to shake off the Turk. Brother-in-arms of Nadir Shah, whom he had accompanied on an expedition to India (1738–39), and who had bestowed on him the crowns of Karthli and Kakhetia in return for his successful campaigns against the Lesghians, Heraklius, though the vassal of Persia, knew her to be helpless from internal troubles, and therefore made an agreement with Russia, which procured him the support of an army under Count Totleben in his effort to deliver Imeretia. Totleben left Heraklius to subdue Akhaltsikh alone, relieved Kutais, failed at Poti, and returned to Russia without accomplishing anything of value. Heraklius continued a valiant struggle against the Turks and the Daghestan tribes, their allies, until Russia's conquest of the Crimea in 1783 again awoke hopes of aid. By the Treaty of Georgievsk (1783) he openly acknowledged himself vassal of the Empress Catherine, who was steadily increasing her grasp of the Caucasus. Vladikavkaz was founded in 1785 on the site of the Ossetian village, Zaluch, adding another link to the chain of forts stretching from the Caspian to the Azov. Ten years later Persia was again strong enough to attempt the recovery of her lost suzerainty; in 1795 Aga Mohammed Khan suddenly marched on Georgia, and, while the Russian general, Count Gudovich, remained inactive, Tiflis was sacked and the country put to fire and sword. Not until the autumn of 1795, when the disaster was complete, did troops under Zubov attack and defeat the Persians at the mouth of the Kura. The Emperor Paul recalled his army next year, and Heraklius died in 1798, leaving his country a prey to Turk and Persian.

(4) *Annexation of Georgia*

His son and successor, Giorgi XIII, was utterly unable to cope with the situation, and, in their extremity, the Georgian nobles offered the country to the Tsar. The deed of surrender was signed by the King in 1799, and in 1801 Georgia, Mingrelia, Guria, and Imeretia were declared by the Tsar Alexander I to be Russian provinces. The royal family, except some insurgent members of it, were transferred to Russia, where they received estates and pensions. A Georgian noble, educated in Russia, Prince Tsitsianov, was made Governor of the new territories; the Georgian Church was incorporated with the Russian; the Russian code of laws was established, but modified and adapted at first to national custom and the code of Vakhtang VI.[1] The poverty of Georgia necessitated a large Russian subsidy to maintain the government and troops, the very small existing revenue being devoted to the gradual restoration of the towns. Tsitsianov began the great military road by the pass of Dariel between Vladikavkaz and Tiflis in 1804, stormed Gandja, 1805, and perished before Baku. The Turks held Imeretia against Russia, assisted by King Solomon until his death in 1815; the small kingdom was then absorbed into the other provinces.

(5) *Treaty of Gulistan*

War continued between Russia and Persia for the possession of Karabagh[2] and Shirwan[3] until 1813, when the Treaty of Gulistan finally ceded them to Russia, together with Sheki, Talish, Gandja, Kuba, and Derbent. It remained to hold the new territories, where the Moslems of Daghestan and Chechnia defied Russia's power for half a century to come. The Cossacks were the means chiefly relied on to overawe

[1] This was superseded by the Russian Code in 1841.
[2] Now the Shusha, Jevanshir, Sangesur, and Jebrail districts.
[3] Now the Shemakha, Geokchai, and Jevat districts of the Baku Government.

the independent mountaineers; forts along the Terek and the Sundja were multiplied. General Yermilov, appointed Governor and commander-in-chief in 1816, grappled with the problem in a spirit of ferocious severity that even outdid that of the tribesmen. The Lesghians were the first to feel the weight of his hand, next the Chechens; but the sullen quiet his methods for the moment produced was broken by war with Persia in 1826.

(6) *Wars with Persia and Turkey*, 1826–9

Yermilov's strange inactivity at the outset of hostilities caused his recall and the appointment of Prince Paskievich, whose capture of Erivan and other successes resulted in the Peace of Turkmanchay in 1828, by which Russia acquired the khanates of Erivan and Nakhichevan. Paskievich then devoted himself to the Turkish campaign, Russia having taken up the cudgels for Greece. Kars and Akhaltsikh fell successively; and Paskievich, recruiting his ranks from Tatars and Armenians in Transcaucasia, supported by Guria, hitherto suspected of Turkish sympathies, advanced into Armenia and occupied Erzerum. When he retired at the Peace of Adrianople in 1829, the fortresses of Akhalkalaki and Akhaltsikh and the greater part of the pashalik of Akhaltsikh were added to Russia.

(7) *Muridism; War with the Tribes in Daghestan and Chechnia*, 1830–59

The Mohammedan tribes who had risen in the hills in response to Turkey's call to arms now absorbed Russia's attention. On the extreme west, from the mouth of the Kuban to Mount Elbruz, the Cherkess and Abkhasians, in communication with Turkey by the Black Sea, kept up desultory warfare until 1864. The chief threat to Russia's supremacy lay, however, in the east, in the regions of Chechnia and Daghestan, where the doctrine of Muridism, inciting the tribes to a holy

war against Russia, was preached by the Imams Kaza Mullah, Hamzad Bek, and Shamyl, and in time united the tribesmen from the Caspian to the Dariel Pass. Between the two districts lay tribes submissive to Russian authority, the Khevsurs, Pshavs, Tushes, Svanetians, Ossetes, and Kabards. The forts stretching from the Sea of Azov to the Caspian were held by Cossacks, organized into various *voiskos*, which from 1832 each represented a regiment and became part of the Imperial military organization. The Cossacks kept up the roads and the postal service, provided maintenance for the drafts of Imperial troops sent to reinforce the line, and cultivated the land, drawing labour from the friendly tribes, who were obliged to give their services for fixed periods. The Cossack himself was soldier and farmer in one, ploughing his fields with his gun at his side, ready for the signal of cannon-shots that collected the settlers—two were a call to arms, four signified a raid, eight an attack in force—signals which in case of need were passed from fort to fort. The enemy around them was brave, desperate, animated by religious fervour and by the fierce doctrines and examples of Kaza Mullah, slain at Ginri in 1831, and his disciples, Hamzad Bek and Shamyl, the latter of whom became leader in 1834 and began in failure, through the defection of the Avars, the most powerful of the Daghestan tribes. Four years later, Shamyl's efforts won back the Avars, and by 1845, in spite of frequent reverses, his word swayed the whole country-side.

The absence of roads and the length of the Russian line of communications favoured the tribesmen operating, in Daghestan, on a wild barren plateau intersected by deep ravines, and in Chechnia amid hills covered with dense forests. Punitive expeditions had no lasting effect. The one undertaken by Prince Vorontzov in 1845 against Shamyl's Chechnian stronghold, Dargo, resulted in the loss of two-thirds of the Russian troops in a terrible return march through the forest, and increased the Murids' confidence. Next

year Shamyl broke past the Sundja forts and appeared in Kabarda; but the aid of the western Caucasus failed him. The Russians now adopted a plan, conceived by Yermilov's lieutenant, Veeliamenov, but never before put in practice—that of gradually advancing the Russian defensive line, and of systematically clearing away the forests as the troops closed in on Shamyl. So well aware was the Imam of the value of the screening trees that his law ordained the death of any Murid who should fell one.

Prince Vorontzov's operations were delayed by the events of the Crimean War, made memorable in these regions by General Williams's defence of Kars for five months against overwhelming numbers. The tribesmen took no concerted action with Turkey, and, in spite of the awe Shamyl still inspired, his severity was gradually loosening his hold. Veden, his second stronghold, was captured in 1858, and his escape to the valley of the Andi Koisu only delayed his capture to the following autumn, when he was surrounded at Gunib and taken prisoner by Prince Bariatinski. All the tribes laid down their arms; the reluctant submission of the Abkhasians and Cherkess followed in 1864. These peoples steadily migrated to Turkish territory.

(8) *War with Turkey*, 1877

When war again broke out in 1877 between Russia and the Porte, Daghestan, Chechnia, Circassia, and Abkhasia rose in response; but there was again no concerted action, and the tribes soon quieted down after the signing of peace. The Treaties of San Stefano and Berlin (1878) added to Russia Kars, Bayazid, the country as far as Soghanlu Dagh (including the valuable rock-salt mine of Kulp), Ardahan, and Batum, which was declared a 'free port' and attracted commercial enterprise. The Baku oil-fields, exploited now by foreign capital, opened up an undreamt-of source of wealth, by which Tatars and Armenians chiefly profited. The Georgians took little part in these

developments; the people, brave and energetic in national emergencies, were unenterprising and unambitious; the nobles, much impoverished by the Act of Emancipation which restricted their right to the labour of the people, lived on their estates or served in the army; Armenians and Tatars were the energetic elements of the very heterogeneous populations, and many amassed huge fortunes in the oil-fields or concerns connected with them.

(9) *Revolutionary Movement*, 1902–6

It was among these elements that trouble first broke out (1902–5) in the terrible riots at Baku at the time of general unrest in Russia which followed the war with Japan. Political agitation had its effect on the western Georgians, awaking dreams of autonomy which the ill-judged government of the last few years had put them in a state to welcome. The Caucasus was placed under martial law; the outbreaks in the Government of Kutais were suppressed with the utmost severity by General Alikhanov; and during 1906 tranquillity was generally restored. But neither the oil-fields of Baku nor the trade of the port of Batum recovered their former prosperity; and the attitude of the Armenians, whose schools and cherished Church property were threatened by the Russian Government's policy of nationalization, continued to be resentful, while the Pan-Islamic sympathies of the Tatars were carefully encouraged by Turkey.

(10) *Effect of the Great War*, 1914–18

With the outbreak of the European War in August 1914, the old antagonism of Christian against Moslem reappeared. Russia's successes in Armenia at first held in check the Mohammedan element in her midst; but, after the internal revolution of March 1917, the situation became increasingly difficult. Though till that date Georgians and other Transcaucasians alike

had fought gallantly in the Russian armies, an anti-Russian spirit now began to make itself felt, and in May 1917 Georgia proclaimed the spiritual independence of her Church. Meanwhile, after a period of internecine war, the mountaineers of Daghestan formed a separate republic, which was peaceably disposed towards the temporary republic created in Transcaucasia (see p. 33), where Armenians and Georgians were loyally upholding the Allied cause and keeping the gates against Turkey.

In Georgia the movement for autonomy had been rapidly growing; and on May 26, 1918, two hours after the dissolution of the Transcaucasian Diet—which had been formed from Georgians, Armenians, and Tatars to uphold some form of order—the Georgian National Council, elected in the previous November, proclaimed the independence of their country. Within a week or two, cut off from supplies, and without resources, with the Baku Tatars actively assisting Turkey in the East, the Georgian Republic was obliged to fulfil the terms of the Treaty of Brest-Litovsk and cede to Turkey the disputed districts of Batum, Ardahan, Akhalkalaki, and Akhaltsikh.

Meanwhile the Armenians and Tatars also claim to have established separate independent republics, with capitals respectively at Erivan and Baku. The capital of the Georgian Republic is at Tiflis.

III. SOCIAL AND POLITICAL CONDITIONS

(1) Religious

The State religion of Russia is the Orthodox Faith, to which the Georgians conform. Their independent Church, which broke off from the Armenian in A. D. 542, was absorbed into the Russian Orthodox Church in 1811, and the existing Georgian Church property, amounting to some 700,000,000 roubles, confiscated. The twenty Georgian bishoprics were reduced to six. The Katholikos Patriarch was officially known as the Exarch of Georgia and Archbishop of Karthli and Kakhetia; he had a seat in the Holy Synod at Petersburg.

Since the revolution of 1917 the independence of the Georgian Church has been re-established, and Bishop Kirion has been consecrated Katholikos Patriarch of Georgia.

The Armenians form an independent Church with a Katholikos at Echmiadzin.

There are numerous sects among the Russian settlers (Dukhobortsi, Molokani, or 'milk-eaters', and Skoptsi), who are for the most part nonconformists exiled from Russia. There are also various sects among the Cossacks.

The German colonists are Protestants and sectarians.

The Svanetians, Khevsurs, and Ossetes are nominally Christians of the Orthodox Faith.

The Tates and Azarbaijan Tatars are Shiah Mohammedans.

Chechens, Lesghians, Kabards, Lazis, Cherkess, or Adighé, Abkhasians, Kumyks, and Karachai Tatars are, with rare exceptions, Sunni Mohammedans.

(2) Political

The title and powers of Viceroy of the Caucasus were revived in 1905; the Viceroyalty had been abolished in 1882 in favour of a Governor-Generalship, directed and controlled by a Caucasian Committee at Petersburg.

The Viceroy's powers comprised :—the supreme civil administration of the Provinces and Governments making up the Caucasus region, the command of all the troops quartered in the Caucasus, the framing of any new regulations necessary in his administration, together with a seat on the Council of the Empire and the title of Ataman of the Cossacks in the Caucasus. There was a civil Governor at the head of each Province or Government (*gubernie*), except those of Daghestan, Sukhum, Batum, and Kars, where the Governor was a military official. The *gubernies* were divided into districts, governed by *nachalniks*, and the districts were divided into communes (*volosts*), each presided over by an elder (*volostnoi starshina*), elected by the community. The *volosts* were made up of villages under elected headmen (*starosts*), assistants to the communal elder. In each village every tenth man had to take his turn in assisting in the preservation of law and order; these were known as tenth men (*desyatniks*).

There were District Courts (*okrujni sud*) in five Transcaucasian Governments—Tiflis, Kutais, Elisavetopol, Erivan, and Baku. These also constituted courts of appeal from the lower courts. Each minor division had two stipendiary magistrates; civil cases, to the value of 2,000 roubles (£200), appeared before one, and minor police cases before the other. The rural judges (*selskiya sudya*), or the *kandidati* in their stead, investigated all complaints and settled disputes; the number of these *selskiya sudya* could not exceed twelve in each district, and their decisions were subject to the *volostnoi starshina's* approval. Beneath these officials again were elected arbitrators, to settle questions of trespass or damage to property. Appeals

from the District Courts' decisions could be taken to the Supreme Court at Tiflis, and from that to Petersburg. The Courts were accessible and cheap, and there was no discrimination between Russian subjects and foreigners in legal proceedings; but judgements given in Russian Courts had no effect in England, nor decisions obtained in England in Russia.

The Cossack communities are divided into *stanitzas* or villages, each *stanitza* having an elected assembly of 30 members; in populous *stanitzas* one man is elected from every ten households. These assemblies have wider powers than the usual *mir* or commune, viz. division of land, assessment of taxes, regulation of schools, grain stores, cultivation, &c., and the election of elders (*ataman*) and judges.

When the Revolution occurred in 1917, the Viceroy was recalled, and the various nationalities in the Caucasus arranged representative National Assemblies; but, as chaos in the Empire increased, relations were broken off with the Central Government. A separate Transcaucasian Republic was formed, in the Government of which Armenians, Tatars, and Georgians were equally represented; and another new state called the Republic of Daghestan, under the presidency of a Lesghian of the Mohammedan faith, also emerged. The Cossacks, however, remained aloof.

(3) Educational

Public education was in the hands of the State, or was directly controlled by it. The number of persons able to read or write in the Caucasus in 1912 was only 17 per cent., and the percentage of schools to the population was very low. Some progress was made in the provision of instruction during 1912 and 1913, but the outbreak of war hindered the completion of the various schemes put forward, in particular by the towns of Anapa, Novorossiisk, Yeisk, Temryuk, Maikop, Grozni, Georgievsk, Pyatigorsk, and Stavropol in

Ciscaucasia, and Tiflis and Baku in Transcaucasia. In 1913, 3,665 elementary schools were open, and this number was to be increased to 4,220. Secondary or middle schools, divided into Realgymnasia, Gymnasia, and Progymnasia, were also on the increase. The Province of Kuban had the largest number of secondary schools (27), and the Province of Kars the lowest (2). Schools and institutes for the training of teachers were on the increase, and the Polytechnic Institution in contemplation at Tiflis was to embrace agricultural, chemical, economic, and mechanical sections. £210,512 had been collected for this purpose, of which Baku had contributed £42,105, with the petition that a mining section should be added. The Board of Education in 1913 granted permits for 57 new private schools, of which about 234 existed. Movable summer schools for the education of the nomad tribes were attempted for the first time in 1913 in the Governments of Erivan and Kutais. The industrial schools included 22 secondary and lower-grade technical schools, 5 trade schools, 14 lower-grade trade schools, and 3 charitable trade schools.

GENERAL OBSERVATIONS

For nearly a century this region, inhabited by small nationalities of pronounced racial feelings and varied religions, has been welded together by the constraining force of a single dominant power.

The Mohammedan hill-tribes, conquered by superior force, unprogressive, brave, and violent by nature, valued their lost independence more than the peace which Russia's strong hand and impartial justice secured. The Christians, on the other hand, at first grateful for the protection afforded them, began, with increased education and a higher standard of living, to resent the effects of autocratic government and the cramping economic conditions.

The disturbances of 1902–5, though they were

sternly repressed, left seeds of unrest behind them; and the provinces were probably on the road to a serious effort to secure autonomy, when the European War, and later the Russian Revolution, shattered the existing system. Since May 26, 1918, when the Transcaucasian Diet proclaimed its own dissolution, there have existed three independent republics in what used to be Russian Caucasia—the Armenian Republic, the Georgian Republic, and a Tatar Republic in the eastern Caucasus. Of these the eastern republic presents by far the most formidable problem. It is manifestly impossible to leave the Tatars of the eastern Caucasus, with the wild hill-tribes of Daghestan, to their own devices. The vital importance to Europe of the oil-fields in this region makes the problem here exceptionally pressing.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) Internal

(*a*) *Roads*

In an area of 181,173 square miles there were in the Caucasus in 1912 only 1,950 miles of macadamized road and 5,300 miles of unmetalled road. Progress was being made in some parts, but in others the roads were falling into disrepair. After the outbreak of war important work was carried out on some of the main roads, and in 1915 and 1916 several new military roads were constructed over the Turkish frontier.

The main artery of the country, running from north to south, is the Mozdok–Vladikavkaz–Tiflis–Erivan road, 382 miles in length. The Vladikavkaz–Tiflis section, which crosses the main range of the Caucasus by the Dariel Pass, is known as the Georgian Military Road, and is a fine piece of engineering. There is a motor-car service, run by a French company, along this section.

Two unmetalled roads lead northward from Mozdok—the one runs north-west to Alexandrovskoe, whence a metalled continuation goes to meet at about 25 miles north-east of Stavropol a metalled road from Stavropol to Divnoe near the Astrakhan frontier ; the other runs north-east into Astrakhan, dividing at Senkina, some 15 miles from Mozdok, into two branches, both of which eventually cross the border.

A road runs south-westward from Tiflis to Kars, a distance of 167 miles, and is metalled for part of the way.

An important road, the Ossetian Military Road, runs north-west from Vladikavkaz to Ardonskaya and thence

south-west to Kutais, a distance of 191 miles. It crosses the Caucasian main range by the Mamison Pass.

The most important road from west to east is the Kutais–Tiflis–Elisavetopol–Shemakha–Baku road, with a total length of 542 miles. The Kutais–Tiflis section is known as the Imeretian Military Road.

There are also coast roads along the shores of the Black and Caspian Seas:

On the Black Sea coast a metalled road begins at Anapa, passes through Novorossiisk, 30 miles to the south-east, and runs along the coast to Sukhum and Ochemchiri, where it turns inland, dividing at Novo-Senaki into two branches which meet again at Kutais. The coast section was being improved in 1913.

Other roads terminating on the Black Sea coast are the Armavir–Maikop–Tuapse road, 166 miles long, the Akhaltsikh–Batum road, 110 miles long, and the Akhalkalaki–Artvin–Batum road, 200 miles long. The first of these is now to some extent superseded by the recently constructed railway following the same course. Batum lacks road connexions with the north.

Along the Caspian coast there is a road, for the most part unmetalled, from Astrakhan to Baku, a distance of 600 miles; and there is a road, metalled except where it crosses the Vantliashet Pass, from Petrovsk, on the Caspian, to Tiflis.

Road communications between the Caucasus and Russia are very few, the only ones of importance being the above-mentioned road along the Caspian littoral and one from Stavropol to Rostov-on-Don.

(*b*) *Rivers and Canals*

Few of the numerous rivers of the Caucasus are navigable, and those are used to a limited extent only for transport. The floating of timber to the seaboard for shipment is the principal traffic in almost every case.

In Ciscaucasia the Kuban and the Terek have navigable stretches. The *Kuban*, which flows into the

Sea of Azov, is navigable by light-draught steamers for 141 miles from its mouth. On the river and the various tributaries forming its basin there are 964 miles of water suitable for floating timber. The *Terek*, which flows into the Caspian, is navigable by light vessels for 112 miles from its mouth, but there is no steamer traffic. Timber can be floated for 320 miles. It has no tributaries of importance.

In Transcaucasia the navigable rivers are the Chorokh and Rion, emptying into the Black Sea, and the Kura, emptying into the Caspian. The *Rion* is navigable for 83 miles from its mouth at Poti, but no steamers can be used. Timber is floated or rafted for 123 miles. The *Kura* is navigable for 390 miles from its mouth, and of this distance 197 miles are suitable for steamers. Including its tributaries, the basin of the Kura provides 1,098 miles of water upon which timber-floating is possible.

All these navigable waters were under the care of the State, which, through the Ministry of Ways and Communications, was responsible for their maintenance and improvement.

There are no navigable canals in the Caucasus. For irrigation canals, see p. 59.

(c) *Railways*

In 1912 there were 2,442 miles of railway in the Caucasus, 994 miles being in Ciscaucasia and 1,448 miles in Transcaucasia. These are generally of 5-ft. gauge, and, with certain exceptions indicated below, are of single track.

Principal Railways.—There are two principal railway systems—the Vladikavkaz and the Transcaucasian. Both were constructed and maintained originally by private companies, but the latter was acquired by the State in 1906.

(i) The main line of the *Vladikavkaz Railway*, 819 miles in length, runs from Rostov-on-Don (where con-

nexion is made with all parts of Russia) to Baku, *via* Tikhoretskaya, Kavkazkaya, Armavir, Mineralniyavodi, Beslan, Grozni, Petrovsk, and Derbent. From Tikhoretskaya to Mineralniyavodi the track is double.

There are four principal branches: one runs from Tikhoretskaya to Tsaritsin on the Volga, 333 miles; another from Tikhoretskaya to Ekaterinodar, and thence as a double line to Novorossiisk, 170 miles in all; a third from Kavkazkaya to Ekaterinodar, 85 miles; and a fourth from Kavkazkaya to Stavropol, 93 miles. There are also short branches from Mineralniyavodi to Kislovodsk and other watering-places, from Kotlyarevskaya to Nalchik, and from Beslan to Vladikavkaz.

The Vladikavkaz Railway is considered to be one of the most profitable and best-managed private lines in Russia. The company's original concession expired in 1911, but was renewed for fifteen years, and thereupon various improvements and plans for new branches and terminal facilities were undertaken.

The receipts in 1912 amounted to £5,845,100, and the expenses to £3,137,400, leaving a net profit of £2,707,700, less the sum of £348,400, which the State received in accordance with the rate fixed in the company's statutes. In 1910, the latest year for which such figures are available, the railway carried about 8,000,000 tons of goods.

(ii) The *Transcaucasian Railway* runs from Batum to Baku, a distance of 563 miles, *via* Samtredi, Rion, Sharopan, Michailovo, Tiflis, and Elisavetopol. From Akstafa to Elisavetopol and from Adji-Kabul to Baku the track is double. The railway also owns an 8-in. pipe line from Baku to Batum, which is capable of delivering 1,600,000 tons of oil per annum.

There are six principal branches: from Samtredi to Poti (41 miles); from Rion, *via* Kutais, to Tkvibuli (33 miles), serving the coal-mines at the latter place; from Sharopan to Sachkeri (narrow gauge, 33 miles), serving the Chiaturi manganese mines; from Michailovo, *via* Borzhom, to Bakuriani; from Tiflis, *via* Alexandropol and Kars, to Sarykamish (226 miles), with

a branch from Alexandropol to Julfa on the Persian border (206 miles), and thence to Tabriz; and from Baku to Sabunchi (double track, 12 miles), with a single-track branch (3 miles) to the Surachani oil-field.

The receipts of the Transcaucasian Railway in 1911, the latest year for which figures are available, were £1,983,455, and the expenses £1,293,485. In 1910 the railway carried 6,000,000 tons of goods. The working of the railway was said to give cause for dissatisfaction in many respects. High freights, deficient rolling-stock, and undue delays were complained of by traders; but though the management made promises of amendment, these had not been fulfilled when war broke out.

(iii) An independent company, the *Armavir–Tuapse Railway Company*, was the owner of the line, 166 miles long, which runs from Armavir through the Maikop oil-fields to the port of Tuapse. This line was provisionally opened for traffic in 1914 and completed in 1916. No figures as to its working are yet available. Proposed extensions are referred to below.

Railways under construction.—Eight short lines in the north-western districts of Ciscaucasia were surveyed or under construction in 1914. Their object was to serve agricultural interests in this area. A line along the valley of the Terek to serve Mozdok and shorten the main line to Baku was also being built.

In Transcaucasia the principal lines under construction were extensions into Turkish Armenia, at the time of the invasion of that province by the Russians in 1915–16. A line from Tiflis to Telav, 116 miles long, under construction by an independent company, financed by Georgian landowners, was almost finished in 1914. It was intended to tap a wine-growing district.

Projected Railways.—Extensive additions to the Caucasian railway systems had been planned and in some cases surveyed, and money had been raised for their construction when war broke out.

The most important was the Black Sea coast line

from Tuapse to Novo-Senaki on the Transcaucasian Railway, a distance of 267 miles, which had been undertaken by an independent company, the Kuban–Black Sea Railway Company.

A company called the South Caucasian Railway Company had received a concession for a line from Borzhom to Kars with a branch to Olti, a coal-mining centre, and a line had also been projected from Batum to Kars along the valley of the Chorokh.

The Armavir–Tuapse Railway Company had two extensions in view: one from Armavir to Blagodarnoe (299 miles) to serve Stavropol Province, the other from Kurgannoi to Ust Labinskaya, a narrow-gauge line.

A concession had been granted for a line from Evlakh, a station on the Transcaucasian Railway between Elisavetopol and Baku, to Shusha, 59 miles to the south.

A Caspian coast line from the point south-west of Baku where the main Transcaucasian line turns inland, *via* Salyani and Lenkoran, to Astara, on the Persian frontier, had been planned; and a syndicate for its construction was being formed in 1914.

The question of a railway between Vladikavkaz and Tiflis has been discussed for many years, but the schemes for its construction have all proved abortive on account of the difficulties and high cost of crossing the Caucasus range.

When war broke out railway-building, except on the routes into Turkish Armenia, which were exclusively of military importance, came to a standstill, and all plans for the future fell into abeyance. That construction should begin again is very necessary, for the existing lines are quite inadequate to the economic requirements of the country.

(*d*) *Posts, Telegraphs, and Telephones*

The postal service was organized on the European model, and there were the usual facilities for sending money by post. The practice of sending parcels, cash

on delivery, was in existence. Parcels in transit for Persia went duty free.

All the principal towns have telegraphic communication with other parts of the Caucasus and with Russia. The lines follow the railway routes, and towns not on these are connected with the main telegraph system by branch lines.

Telephonic communication between Tiflis and Baku was established in 1911, and it was intended, should the innovation prove a financial success, to extend the system to other large towns.

(2) External

(a) *Ports and Roadsteads*

(i) *On the Black Sea.*

In *Anapa Roads* are two anchorages, the outer exposed from north-west to south-south-west, the inner (for small craft) sheltered from south-west winds. A pier, 175 yds. long, runs out on the north of the town. The Government proposed to carry out harbour works there. The port does a small trade in grain, fur, and wax.

Batum.—The bay of Batum is about a mile and a half wide from east to west and half a mile deep from north to south. From the southern shore, in a north-north-westerly direction, extends a mole 275 yds. long, from the head of which another mole, known as the Petroleum Mole, carrying rails and petroleum pipe lines, runs south-west for 440 yds. The harbour thus formed, known as the Western or Petroleum Harbour, has a dredged depth of 24–30 ft., with berths for 20 steamers. A breakwater running north-east from the first mole for 275 yds. forms the Eastern or Coasting Trade Harbour, which is only 7–17 ft. deep, and needs constant dredging. There is also a mole, 200 yds. long and 60 yds. wide, extending towards the north-north-east from the north-western

extremity of Burun Tabia, which is the western point of the bay.

The harbours, though approachable in all weathers, are exposed to the violence of south-westerly gales; and in 1910 the British Consul stated that complaints were general with regard to their unsafe condition. In 1911, on the subsidence of one of the moles, a scheme was framed which comprised considerable extensions and improvements. The funds provided by the Congress of Harbour Authorities were at first insufficient, but in 1913 the sum of £750,000 was provisionally assigned. The preliminary work and surveys were completed by June of the following year, but on the outbreak of war the undertaking had to be abandoned.

The dangers incurred by shipping in bad weather and the inadequacy of the port to deal with increased traffic resulting from the manganese trade have for years impeded the commercial development of Batum. From 1878 to 1886, however, it enjoyed eight years of exceptional prosperity as a 'free port'. Even after the withdrawal of this privilege in 1886, the petroleum export maintained trade at a high level until the labour disturbances of 1903–5, from the disastrous effects of which the port has not yet recovered. The total value of its trade in 1913 was £5,134,732, of which £4,552,200 represented exports and £582,532 imports. Coasting trade, carried on exclusively by Russian ships, was very prosperous in that year.

Gagri is an open roadstead, providing anchorage for small vessels in 5–6 fathoms. The Government had in contemplation a scheme to build a harbour of refuge there, for which a sum of £211,000 was assigned in 1913.

Gelendjik Bay, which is 2½ miles long and 1½ miles deep, is sheltered from the violent north-east winds. Light vessels find good anchorage in 12 ft. of water.

The open roadstead at *Gudaut* is used by coasters only.

Novorossiisk harbour has been artificially formed by the construction of two moles, each half a mile long. On

the shore front there are 7 piers with depths varying from 19 to 29 ft. at their outer ends. Five of these piers are owned by the Vladikavkaz Railway Company, one by the Russian Steam Navigation and Trading Company, and one by the Russian Standard Oil Company, and all are connected by double lines of rail with the terminus railway station. There is also on the south-west of the harbour a mole, used by coasters, with a depth of 23 ft. alongside. Altogether, there are berths for about 22 steamers.

In autumn and winter anchorage at the head of the bay is rendered very unsafe by the *bora*, a violent north-easterly wind which then prevails; vessels are sometimes unable even to enter.

The harbour is lit by electric light and there are ample loading facilities. The Vladikavkaz Railway storehouses can take 70,000 tons of grain. An iron foundry close to the harbour makes marine boilers and executes repairs.

Novorossiisk has a considerable export trade in grain and mineral oil, amounting to about £5,000,000 a year in value. The imports are inconsiderable, and consist chiefly of machinery, hardware, and coal.

Poti harbour affords safe protection to shipping, but is practically unapproachable in bad weather. An outer and inner basin are formed by two moles built of concrete blocks. Another mole in the middle of the outer basin carries two lines of rails and several large sheds. In the inner basin there are berths for eight or ten steamers and an elevator for loading manganese. The length of quayage is 1,500 yds.

In 1913 the value of the exports, of which manganese was by far the most important, was £835,972, whilst the value of the imports for the same year was only £7,350.

Sochi is used by sailing vessels, which anchor off Sochi town in 16 fathoms. Steam vessels are able to anchor closer inshore. Sochi was included in the Government scheme for the construction of ports of refuge on this coast.

Sukhum Kale in Sukhum Bay affords indifferent anchorage in 6–8 fathoms. There is a quay, 56 yds. long, built on piles. A sum of £370,000 was assigned in 1913 for improvements to this port.

Tuapse roadstead, open to the south and south-west, is protected from north-west winds, and affords good anchorage in 6 fathoms. Two moles, half a mile apart, converge to form the old harbour, the depth inside the eastern mole being 23 ft. When the railway was brought to Tuapse, it was realized that the existing harbour accommodation would be inadequate. A concession to build a safe harbour was granted to a French firm in 1909, but, as they failed to fulfil their agreement, the State took the work over in 1913, and it was nearing completion in the autumn of 1914.

(ii) *On the Sea of Azov.*

The Caucasian ports on the Sea of Azov are as yet undeveloped, and relatively unimportant.

Akhtar Bay is so shallow that steamers have to anchor 9 miles from the coast, steam barges bringing out the cargoes.

Temryuk stands on a peninsula dividing two shallow lakes. Its harbour is connected with the sea by a channel 12 ft. deep, navigable by light-draught steamers. There are two piers, but vessels anchor out in the bay. A considerable trade is done in grain and fish.

Yeisk stands at the base of a sandy spit, on the east of which an artificial harbour has been dredged to a depth of 12 ft., with an inner basin 350 yds. long. Projects have been considered for the construction of a deep water port there, to be connected with Ekaterinodar by a branch line.

(iii) *On the Caspian Sea.*

Baku stands on a crescent-shaped bay, 7 miles wide from point to point, protected on the south by Cape

Bailov, and on the east by the Kargin Islands, which lie at the entrance to the bay, 7 miles out at sea. A line of quays extends 4 miles, and there are 14 piers, owned by various shipping companies, each company having its own wharf, warehouses, and offices. In 1914 the State assigned £100,000 for the building of other wharves, although there was already ample accommodation for the steamers engaged in oil transport and in the Transcaspian trade. At Cape Bailov there is a capacious dock.

Derbent (Derbend), 154 miles to the north-west of Baku, is an open roadstead, affording no protection from the north and south-east winds, which blow with great violence at certain seasons. There are no harbour facilities, but various shipping lines visit the port regularly. There is a considerable local trade in fish.

Lenkoran, on a shallow bay, offers only exposed and indifferent anchorage. Large ships lie 3 miles out to sea. There is a considerable trade in boxwood.

Petrovsk, 81 miles north-west of Derbent, has a fair harbour, formed by a curved stone mole, 500 yds. long, on the south. There is a wooden pier on the north, and both mole and pier are connected by lines of rails with the railway station. There are berths for about 10 steamers. The quays and wharves are lit with electric light. The port is closed by ice in January only, and in the winter months, when the Volga is frozen, Petrovsk does a considerable transit trade between Russia in Europe on the one side and Persia and Transcaspia on the other. It also exports oil from Grozni to the Volga. All the Caspian Sea steamship companies call at Petrovsk regularly.

(*b*) *Shipping Lines*

(i) *Russian.*—The Russian Steam Navigation and Trading Co. had almost a monopoly of the Black Sea shipping services, and, under a contract due to expire in 1928, received an annual subsidy of £98,000 from the State. It had piers at the ports of Batum and

Novorossiisk. Its vessels called four times a week at Batum, three times a week at Poti, Gagri, Sukhum Kale, Sochi, Tuapse, and Anapa Roads, and once a week at Gelendjik Bay. In 1914 it possessed 70 steamers with a total tonnage of 142,264.

The Russian Volunteer Fleet Association called at various ports on the Black Sea and the Sea of Azov; in 1914 it had 31 steamers with a total tonnage of 116,364.

The Caucasus and Mercury Co. had 39 steamers, with a total tonnage of 16,504 on the Caspian Sea, and received a grant of £30,350 per annum for its Caspian and Volga services. In 1913 the company demanded an increase to £67,000, which was refused. It had a regular service between Baku, Astrakhan, Krasnovodsk, and smaller Caspian ports.

Other Russian shipowners serving the ports of the Caucasus in 1914 were, on the Black Sea, L. L. Andreis with 12 steamers, Ehrtmann & Geelmuyden with 2 steamers, both of Novorossiisk, and P. Spoliansky of Batum with 2 steamers; on the Caspian, the Eastern Trading Co. with 34 steamers, the Mazut Co. with 14 steamers, the Nadejda Co. (affiliated to the Caucasus and Mercury Co.), Nobel Brothers, and Kachtcheef Brothers.

(ii) *Foreign.*—The Wilson Line, the Oesterreichischer Lloyd, and the Navigazione Generale Italiana had regular services to Batum, Novorossiisk, and Poti; the Compagnie de Navigation Paquet, the Messageries Maritimes, and the Deutsche Levante Linie regular services to Batum and Novorossiisk, and boats calling occasionally at Poti; the Cunard and Moss Companies regular services to Batum only. Vessels of the Ellerman Line called occasionally at Batum, and those of the Danube Steam Navigation Co. (Rumanian) at Batum and Novorossiisk.

A good deal of 'tramp' tonnage was attracted to the Black Sea, especially in the autumn, when grain shipment from Novorossiisk was brisk. The vessels were of all nationalities, but British shipping easily held

first place, followed, up to the outbreak of the Balkan War, by vessels under the Greek flag. Only Russian-owned vessels trade on the Caspian Sea.

Shipping facilities both on the Black and Caspian Seas were equal to all demands; on the former the majority of the vessels from abroad arrived in ballast, as imports nowhere balanced exports.

Particulars of shipping at the principal ports in 1909 and 1913 are given in Table I of the Appendix (p. 92).

(c) *Telegraphic and Wireless Communications*

The Indo-European Telegraph Co. has a line running from Julfa by Erivan, Tiflis, Zugdidi, Sukhum Kale, Tuapse, Ekaterinodar, and Temryuk to Chushka Point, whence two submarine cables belonging to the company cross the Kerch Straits to Yenikale. Land telegraph lines connect Batum with Constantinople *via* Trebizond. A submarine cable connects Baku with Krasnovodsk in Transcaspia.

Batum possesses a wireless telegraph station, installed in 1911, in communication with Sevastopol. A wireless station with a range of 267 miles connects Petrovsk with Fort Alexandrovsk in Transcaspia, and another of the same power was opened at Baku in 1914. Funds were assigned in that year for erecting stations at Novorossiisk and Poti.

(B) INDUSTRY

(1) Labour

(a) *Labour Supply; Immigration and Emigration*

Agriculture forms the occupation of the majority of the inhabitants of the Caucasus, though in many cases it is pursued in combination with other activities. The numerous peoples of which the population consists (see above, pp. 8–12) naturally show very various capacities for labour and prejudices with regard to it. The people of Caucasian or Georgian stock are cultivators of the land and keepers of flocks and herds, with little taste

for industrial work; many of them, especially those of the mountainous districts, are very backward (as are also the Kurds and Ossetes), but the Lesghians and Gruzians are reliable and hard-working, and constitute the best native labour supply. The Armenians, on the other hand, find their most congenial employment in trade and usury, though a good many of them are employed on the oil-fields; the Russian colonists make good agriculturists, but are often idle and intemperate; while the Tatars, who in general are farmers and breeders of sheep and cattle, are also the predominant element on the Baku oil-fields.

The native labour supply, however, is insufficient for the country's requirements on the oil-fields and elsewhere, and there has been a considerable *immigration* for some years past, the chief sources being as follows:

(i) *Russian.* — When Transcaucasia came under Russian rule in 1878, the State replaced the many Abkhasians and Circassians who left the country by considerable numbers of Russian colonists. Russian settlers have been planted by the State on the reclaimed lands of the Mughan and Mil steppes. There is a seasonal movement of some 300,000 labourers from Central Russia into Ciscaucasia for the harvest. *Artels*, or combines of Russian skilled workers, numbering from 10 to 50 persons, move about the country undertaking various sorts of contract work, and earn high wages.

(ii) *Armenian.*—Except in the two or three years following the establishment of the Young Turk Government, there has been a steady stream of immigration from Turkish Armenia to the Caucasus. This immigration increased during the persecution of the Armenians in 1915, but the fate of the refugees since the Turco-German occupation of the Caucasus is uncertain. Echmiadzin, in the Government of Erivan, the residence of the Armenian Patriarch, was regarded as the national capital of the Armenians.

(iii) *Turkish* labour is imported for the tea plantations on the Black Sea coast, and for the copper mines in the Batum district.

(iv) *Persians* go to the Baku oil-fields as tub-cleaners, &c.

(v) Induced by the demand for labour on railway construction and other public works, a considerable number of *Italians* immigrated into Transcaucasia about the middle of last century, and remained there in scattered communities. There is also a small seasonal immigration of Italians, chiefly masons, road-makers, and sculptors, which increases whenever new public works are taken in hand.

(vi) A few *Greeks* enter Caucasia, mainly to work in the copper mines.

(vii) There are a few villages inhabited by *German* immigrants of long standing, representing, as in Hungary, early German efforts at colonization.

There has been no *emigration* worth mention since the beginning of the present century, except that in 1910 a number of Turkish Armenians returned to their native country, hoping that the Young Turk revolution would secure better political conditions for their race.

(*b*) *Labour Conditions*

Since the revolutionary disturbances at Baku in 1902–5 (see above, p. 29) the conditions of labour in the Caucasus have steadily improved, in spite of the difficulties placed in the way of labour organization by the diversity of nationalities involved. There have been frequent strikes. In 1913 manganese miners, case and can factory hands, copper miners at Dzansul, dock labourers at Poti, and the employees of the Russian Steam Navigation and Trading Company struck for shorter hours, increased pay, and better housing. These movements met with varying degrees of success; an average advance of 30 per cent. in the rate of wages was effected and an eight-hours day was generally conceded. In May 1914 there was a general strike on the Baku fields, the demands including recognition of workmen's committees, better conditions both in the workshops and in the workers'

own homes, and a rise of from 10 per cent. to 50 per cent. in the rates of pay. A promise of improved housing had been obtained when war broke out, and the men returned to work.

In the matter of wages, the demand at Baku was for a minimum of £3 10*s.* a month; in 1908 an ordinary labourer on the oil-fields had earned only from 32*s.* to 40*s.* a month. In other industries ordinary labourers received from 2*s.* 6*d.* to 5*s.* a day, artisans from 5*s.* to 7*s.* 6*d.*, and miners from 5*s.* to 8*s.* 4*d.* Italian masons were paid from 3*s.* 4*d.* to 6*s.* 8*d.* a day. Agricultural labourers in 1913 were receiving from about 1*s.* 7*d.* to about 2*s.* 2*d.* a day, wages being highest in Kutais and lowest in Terek. Female labour, which is much used both in agriculture and in industry, is very poorly paid.

Since 1912 accident and sickness insurance has been compulsory for large industrial concerns. Medical attendance, maintenance during illness, and pensions for totally disabled workmen and for the dependants of workmen accidentally killed in their employers' service, have to be provided by the employers.

(2) Agriculture

(*a*) *Products of Commercial Value*

Vegetable Products.—Cereals grow well in the soil of Ciscaucasia, which is a continuation of the 'black earth' of southern Russia. The area planted with *wheat* in 1914 throughout the country was 12,700,000 acres, yielding nearly 3,000,000 tons of grain; nearly 5,000,000 acres were in Kuban and over 4,000,000 in Stavropol. The area under *barley* in the two divisions of Caucasia in 1914 was about 5,500,000 acres (yielding 1,600,000 tons), and of these more than 4,000,000 were in Ciscaucasia—2,000,000 in Kuban, 1,600,000 in Stavropol, and the rest in Terek. Between 1911 and 1915 Ciscaucasia produced on an average one-third of the total output of winter wheat in the whole Russian Empire and about 15 per cent. of the entire yield of

wheat and barley. Considerable quantities of both wheat and barley are also grown in the eastern and central parts of Transcaucasia, the area under wheat in 1914 being 475,000 acres in Baku, 692,000 in Elisavetopol, and 680,000 in Tiflis, and that under barley, which thrives up to an elevation of 8,000 ft., being 248,000 acres, 329,000 acres, and 318,000 acres respectively in the same three governments.

Maize is the cereal most widely cultivated in north-western Transcaucasia, where it forms the principal food of the population, and whence it is also exported to Europe and Turkey. In Kutais the crop covered 466,000 acres in 1914, and in the little coastal district of Sukhum more than 100,000 acres. The acreage under maize in the whole country was 1,440,000, of which 670,000 acres were in Transcaucasia. Of the 770,000 acres sown in Ciscaucasia, 561,000 were in Terek. The total production of maize in 1914 amounted to 481,000 tons. *Millet* is almost entirely confined to Ciscaucasia, which in 1914, out of a total of 951,000 acres, yielding 355,000 tons, could claim 895,000 acres, more than half of them in Terek and most of the remainder in Stavropol. *Oats* are even more exclusively a product of the northern provinces, for in 1914, of a total of 1,056,000 acres, 512,000 were in Kuban, 301,000 in Stavropol, and 204,000 in Terek. The total yield was 441,000 tons. *Rye* is the least popular of the cereals, there being only 407,000 acres under this crop in the north, of which 246,000 were in Kuban, and 133,000 in the south, of which 75,000 were in Elisavetopol. The total yield was 137,000 tons. The growing of *rice* is decreasing; the yield in 1914 was 28,000 tons, and the area under cultivation 78,000 acres.

Cotton, first grown in the Government of Kutais in 1860, had come before the war to be cultivated over considerable areas in Elisavetopol and Erivan, and to a smaller extent in Baku, Tiflis, and Kutais, while a beginning had been made in Sukhum and Kars. Indeed the cotton crop, which was superseding rice, was looked on as a promising source of future prosperity, and

its cultivation was encouraged by the Government. American cotton gins, irrigation pumping plant, traction engines, and ploughs had been introduced, and cleaning mills of modern pattern built, and it was hoped that on the completion of the irrigation schemes, by which the surplus waters of the Kura and Aras (Araxes) were to be utilized (see pp. 59–60), it would be possible greatly to enlarge the area under cultivation. That area, which thirty years ago was only about 30,000 acres, had already increased by 1910 to 150,000 acres, and by 1912 to 223,000 acres. With regard to the area sown in 1914, there is a wide discrepancy between the Russian official return (186,000 acres) and the figure (337,500 acres) supplied by the British Consul at Batum. The Consul states, however, that owing to a decreased demand and consequent fall in prices, caused by the closing of the Polish mills and the shortage of labour in the manufacturing centres of Russia, there was a tendency among growers to abandon cotton for cereals; and it is possible that his figure is based on an estimate of the probable acreage before this tendency had become fully operative, while the Russian figure represents the area actually cultivated. Of the 186,000 acres of the Russian return, half lay in the Government of Elisavetopol, about a third in that of Erivan, and some 20,000 acres in that of Baku; while of the yield, which was a little under 60,000 tons, 35,500 tons came from Elisavetopol and 18,000 tons from Erivan. This yield, however, owing to heavy rains and cold weather, was below the average.

Flax was grown on 168,000 acres in Ciscaucasia and 18,000 acres in Transcaucasia in 1914, the total yield being 38,000 tons, which was double the yield of 1910. The cultivation of *hemp* is on a very much smaller, though an equally increasing, scale, and is almost entirely confined to the north. There is, however, a plant closely resembling hemp, called *kanap*, which is easily grown and might be used for the same purposes.

Fruit.—Practically all the districts in Transcaucasia

are suitable for the cultivation of European and subtropical fruits. Oranges and lemons thrive particularly well, and peaches, apricots, plums, apples, pears, and olives are also grown. The plums of Sochi and the oranges of Chavka have a special reputation, and in the Batum district strawberries attain great perfection. Sukhum district and the neighbourhood of Artvin grow the best olives. Melons are intensively cultivated. Fruit-growing is being developed on scientific principles by the peasants and small landowners of Kuban.

In 1913 the total area devoted to *hay* was 1,895,000 acres, of which 373,000 were in Terek, 278,000 in Chernomoria, and 227,000 in Baku.

The collection of *liquorice* root, which grows wild, is an industry of some significance, and before the war the shipments from Batum, chiefly for America, were increasingly large. The manufacture of liquorice paste, however, was much affected by the high price of crude oil, used as fuel by the factories, and there has been no export of it since 1914.

An attempt has been made to grow beet-root for *sugar* in Kuban, but the production was very small; 8,785 acres were under cultivation in 1914, of which 7,380 belonged to a sugar factory at Gulevichi.

The *sunflower* is cultivated for the sake of the oil to be obtained from the seeds, which is used as a substitute for linseed oil. The seeds are crushed in local mills and the stalks are used for the manufacture of potash. The crop covers a greater area than any other except the cereals, but is practically confined to Kuban. In 1914 there were 698,000 acres under cultivation, of which 681,500 acres were in Kuban, and the total output was 298,000 tons, of which the Kuban fields gave 292,000 tons, the rest being grown in the neighbouring Province of Stavropol. In that year the production of Ciscaucasia represented seven-eighteenths of the total production of sunflower oil in the Russian Empire. Its share in the total for 1915, however, was less than one-third, a decrease probably due to the necessity of growing more cereals than usual to meet

the falling off of supplies from Russia since the outbreak of war. Up to 1914 the export of oil was considerable.

There were 2,020 acres of land under *tea* along the Black Sea coast in the Province of Batum and 75 acres in the Government of Kutais in 1914. Of this area, 1,080 acres were in the Imperial Domains, 489 acres were the property of the firm of Popoff Brothers, and the remaining plantations belonged to thirteen villages near Chavka. The revenue from the sale of tea was in 1909 about £26 per acre on the Imperial plantations. As a result of the success achieved on the Imperial Domains, tea-growing was beginning to be taken up as a local industry, and the National Government granted a sum of about £1,500 towards the construction of a factory at Batum, under the management of the Batum Agricultural Society, where locally-grown tea could be cured. Another factory was also to be erected at Ozurgeti, under the management of an instructor from the Imperial plantation at Chavka. The cultivation of tea was proceeding successfully at Ozurgeti in 1914. In that year the plantations near Batum produced about 160 tons of leaf.

Tobacco is grown in all the provinces of Caucasia except Stavropol, where its cultivation has been abandoned since 1911; but the most important centres are in Kuban, Sukhum, and Chernomoria. The Kuban plantations apparently give the heaviest crops,[1] but the tobacco of the best quality grows on the Black Sea coast, especially near Sukhum and Sochi. Of the total Russian output of high quality Turkish tobacco in 1915, 90 per cent. came from Caucasia, and of this 57·6 per cent. originated from Kuban, 21·2 per cent. from Sukhum, and 11·2 per cent. from other districts. In 1914, out of a total cultivated area of 80,500 acres, producing 32,600 tons of tobacco, 29,000 acres, pro-

[1] Judging by the returns for 1914; but the figures vary in different reports, and moreover the yield fluctuates considerably according to the weather, so that the figures for one season are not a safe basis for generalization.

ducing 15,000 tons, were in Kuban, nearly 33,000 acres, producing 9,700 tons, in Sukhum, and 10,000 acres, yielding 3,600 tons, in Chernomoria. In Transcaucasia tobacco is most cultivated in Tiflis, Batum, and Kutais, but the acreage and output of Zakatali, though actually small, is not inconsiderable in relation to the size of the district.

Wine is made throughout the country, but though the produce of Ciscaucasia is not inconsiderable in quantity, the grapes are comparatively poor in quality and their juice is thin and acrid. So excellent, on the other hand, are those of Transcaucasia, and in such abundance do they grow, that until the appearance of oïdium, which of late years has necessitated the application of some 4,000 tons of sulphate of copper per annum, thus greatly increasing the cost of production, the peasants were able, by their primitive methods, to make sufficient wine at a cheap rate for their own very liberal consumption. With the introduction of scientific treatment of the vines and of French methods of manufacture the industry should prove lucrative. In a few places modern establishments already existed in 1914, but at present too many kinds of grapes are grown and the plantations are too close together. The district in which the vineyards are most extensive is that of Tiflis; but whereas in 1914 in that Government 81,000 acres yielded only 73,000 tons of grapes, Kutais produced 89,000 tons from 50,000 acres. The localities most celebrated for their wines, however, lie in the Gelendjik district and also in the country round Shemakha and Geokchai, where 22,500 tons of grapes were produced in 1913; in the district between the rivers Kura and Alazan, the ancient Kakhetia, on the borders of Zakatali and Elisavetopol; and at Echmiadzin in the Government of Erivan. In 1914 the total area covered by the vineyards of Caucasia was a little over 300,000 acres, and the yield of grapes 350,000 tons.

Other crops grown in Caucasia, with their acreage and production in 1914, were the following: potatoes, 234,000 acres, 586,500 tons; spelt, 24,000 acres,

7,000 tons; buckwheat, 21,000 acres, 7,000 tons; lentils, beans, and haricots, 20,000 acres, 5,300 tons; peas, 9,000 acres, 3,000 tons. Ramie fibre and attar of roses are produced on the Black Sea coast.

Live-stock and Animal Products.—Owing to the tendency to convert pasture into arable land, there has been a great decrease in the numbers of live-stock raised in Caucasia of late years. To this rule, however, the Jevat and Geokchai districts in Baku Government present an exception; for cattle and horse raising has there been developed into an important industry, the profit obtained in the former region in 1914 being estimated at £70,000. In 1913 the total area devoted to pasturage, which is situated in the steppes and on the mountain slopes up to an elevation of 9,000 ft., was 3,700,000 acres, and the animals in the country comprised 6,327,000 head of cattle, 2,135,000 horses, 13,336,000 sheep and goats, and 1,215,000 pigs. The largest numbers of animals are found in Kuban and Terek; there were in 1912 nearly 4,500,000 of all kinds in the former province and nearly 3,500,000 in the latter.

Buffaloes and a small breed of *oxen* are bred in large numbers; they are used as draught animals, and in some districts as beasts of burden and for ploughing. The best breed of buffaloes is reared in the Governments of Elisavetopol and Kutais.

Horses are raised in other southern districts of Baku besides those already named, and on the Karabagh steppe, which extends from Baku into Elisavetopol; in the valley of the Terek and the Kabarda districts near Vladikavkaz; and in the Provinces of Kuban and Stavropol. A breed of mountain ponies is reared in Kutais. There are numerous private studs.

Camels, which are bred in the south-eastern provinces, are used chiefly as pack animals in the transport of goods to and from Persia, but occasionally also for draught purposes.

Great numbers of *sheep* and *goats* are bred on the steppes and plateaux and in the hill districts. The

wool production was 14,946 tons in 1908, 13,339 tons in 1909, and 17,356 tons, of which 16,473 tons were fine wool and 883 tons coarse, in 1913. The nomad Kurds, the Tatars, the Ossetes, the Svanetians, the Kabards, and the Abkhasians live principally by their flocks and herds, which they raise by primitive methods. Part of the wool crop is sold in the Tatar camps at shearing time to local carpet-weavers; part is exported.

Honey and *wax* are obtained throughout the Caucasus. In 1912 there were 26,000 apiaries, containing nearly 600,000 hives, and the production was 2,500 tons of honey and 300 tons of wax, most of which was consumed locally.

Silk.—Mulberry-trees are grown on the lower slopes of the Transcaucasian mountains, and the silkworm industry, after a period of depression due to the spread of disease amongst the silkworms, has developed greatly of late years, especially in the Governments of Tiflis, Erivan, Elisavetopol, and Kutais. In the Baku Government, where it was once widespread, the industry is only continued to any considerable extent in the district of Geokchai. Much of the output, which in 1914 amounted to over 5,000 tons, is normally consumed in local silk manufactures. Silkworm eggs were imported, principally from Turkey and Italy, and were strictly examined by the Imperial Agricultural Society at Tiflis. The failure of the Turkish supply after 1914 adversely affected subsequent cocoon crops.

(*b*) *Methods of Cultivation*

Ciscaucasia is far in advance of Transcaucasia in respect of agricultural methods, a fact due in part to the more enterprising character of the Cossack population and in part to the less isolated geographical position of the northern provinces. In both divisions of the country, however, there has in recent years been a notable advance in agricultural science, evidenced by the rapid development of co-operation. Whereas in 1909 there were 100 agricultural associations in the

Caucasus, in 1913 there were 803. Agricultural methods were taught in some of the industrial schools. There were experimental botanical gardens, subsidized by the State, at Tiflis and Batum, and a sericultural station. The grants made by the Caucasian Board of Agriculture for the promotion of rural industries in 1913 amounted to £100,000, an advance of 50 per cent. on the sum granted in the previous year. Of this total, £61,000 was allocated to research, £2,000 to improvement of live-stock, and £5,000 to grants in aid to agricultural societies.

In 1913 a commission of agriculturists appointed by the Viceroy of the Caucasus recommended that all educational and experimental institutions should be brought under the Board of Agriculture, and that a permanent commission should be formed to control and initiate such institutions, to organize the supply of information, and to compile statistics.

Partly on account of labour difficulties (see p. 50) there was an increasing demand for agricultural machinery, but better methods of cultivation were simultaneously being introduced.

Extensive *irrigation* schemes had been carried out and others were in contemplation. At Chamlik, a canal from the Laba, the largest tributary of the Kuban, irrigates several thousand acres of steppe land. There is an irrigation canal near Tiflis. In 1906, 62,100 acres of land in the Mughan steppe were reclaimed, at a cost to the State of £31,000; 14 villages were planted, and land which had been practically worthless yielded about £4 an acre. In 1913 the Irrigation Board set up a modulation section to test the rise and fall of water for irrigation purposes in the Karayaz experimental fields and the Mughan steppe. The irrigation of the Mughan steppe was completed and the adjoining Mil steppe was made fertile by means of the Romanov Irrigation Canal, which was opened in 1914; in this year a large barrage was under construction at Saalti, and was to have been completed by 1915. A total of 190,000 acres on the Mughan had been reclaimed,

and 20,000 settlers planted. These improvements had cost £425,000 up to 1914. The water for irrigation was to be obtained chiefly by controlling the rivers Aras and Kura, which in their lower reaches overflow their banks and form permanent marshes. The question of the regulation of all the principal rivers of the country was being officially studied.

(c) *Forestry*

The total area of forest land in Caucasia cannot be stated with certainty. The extent of the forests under the control of the Ministry of Forests was 12,218,000 acres, or about 11 per cent. of the total area of the country and rather more than half of its cultivated area. Kasperowicz[1] puts the total at 16,000,000 acres, and specifies as being favourably situated for commercial exploitation, 1,372,000 acres in Tiflis and Zakatali, 1,008,000 in Elisavetopol, 863,000 in Chernomoria, 807,000 in Kuban, 705,000 in Terek, 647,000 in Batum, 453,000 in Kutais, and 417,000 in Sukhum. The largest tracts of virgin forest are to be found on the mountain slopes of the Black Sea coast; there is a large forest north of Lake Gokcha, and another in the east of Elisavetopol Government; the middle course of the Kura is wooded throughout, and there are considerable forests in the Armenian Highlands. The best exploited forests in Transcaucasia are those in the Ateni valley near Gori, in the Adzhamer valley near Rion, and at Borzhom—all to the west of Tiflis or the east of Kutais.

The trees include walnut, box, beech, oak, birch, Caucasus palm, wych-elm, pine, alder, &c., of which the first five are the most valuable. The walnut and box tree grow extensively in Transcaucasia; their timber formed a valuable article of export, but the quantities exported are declining, since the remaining walnut forests are remote from railways, and the boxwood is being held back to await more favourable

[1] Raffalovich, *Russia: its Trade and Commerce*, p. 94.

prices. Special varieties of conifers, birch, oak, and palm grow in the Caucasus. The Caucasus palm or *samshita* is not plentiful, but is greatly valued. The commonest tree is the beech, which occupies 25 per cent. of the total forest area; the oak occupies 16·7 per cent. and the pine 8·1 per cent. Plantations of bamboo at Chavka and Sukhum have been very successful, the cane being used for industrial purposes.

The Italian firm of Sbrajavacca was in 1914 exploiting the pine-forests of Svanetia and Ratce, the timber being floated down the river Rion. The firm has saw-mills at Socilava and Poti.

The Russian State levied on all timber a royalty varying according to the kind of wood, &c. The State also fixed the amount of timber to be felled in each area, which was then sold to the highest bidder. The total amount of timber which might be cut in the Caucasus was fixed in 1913 at nearly 220,000,000 cubic feet, of which only a little more than a quarter was actually delivered.

(*d*) *Land Tenure*

The Caucasus as a whole has no fixed system of land tenure, nor are any of the characteristic Russian features of land-holding found there. The various kinds of landowner may be divided into six classes: the old nobility of Georgia; Tatar and Armenian peasant holders; nomad pastoral tribes, who occupy large areas of steppe land, especially in Stavropol Province; Russian settlers, placed on land vacated after the conquest; the Russian State, which owned large areas, mainly forest; and the Imperial family, which had acquired valuable appanages in the Caucasus.

No figures are available to show the proportions in which the land is held by these various owners; and, as a large part of the total productive area is occupied by nomads, no exact statistics would be possible. Moreover, recent events have to a great extent obliterated the old divisions, and new claims to ownership of much valuable land will have to be settled in the course of time.

(3) Fisheries

The fisheries off the Caucasian shore of the Caspian Sea are an extremely important source of revenue, and employ large numbers of men, though of late years the more valuable kinds of fish have decreased greatly both in numbers and in size. The catch of *puzanka*, a small variety of herring, off the coasts of Daghestan and Terek averages about 44,000 tons a year, while in 1910 it reached 80,000 tons, with a value of £1,000,000. Owing, however, to the deficiency of means of communication between the Terek coast and the commercial centres of the country the industry is far less profitable than it should be to those engaged in it.

The *sturgeon* fishing in the River Kura, which has its centre at Salyani, is the richest in the world. The bank fishery at the mouth of the river produces from 160 to 240 tons of *caviare*, worth from £75,000 to £150,000 a year, while the total production of the river averages 320 tons. There is ample cold storage accommodation.

The Caspian Sea fisheries are divided into plots, which are let by auction by the Government. In 1910 two large firms obtained two-thirds of these, and a combine of all the Caspian fisheries was expected to follow.

The Kuban Cossack fisheries in the Sea of Azov give some 350 to 400 tons a year, with an average value of over £50,000. The output from Chernomoria in 1911, the only year for which figures are available, was 880 tons of fish, of which 260 tons were herrings and 170 tons were flat fish ; the value was £15,000.

All the streams of the Caucasus abound in fish ; trout, salmon, and various coarser varieties are caught in large quantities. The total number of fish caught in Caucasian waters in 1911 was, in round figures, 2,400,000 salmon and sturgeon, and 232,000,000 other fish. The total output of *caviare* in the same year was 418 tons.

(4) Minerals

The mineral resources of Caucasia have never yet been systematically surveyed, but they are known to be both varied and extensive. As at present worked, and excepting mineral oils (see below, p. 68), which as a source of wealth have hitherto stood alone, the most valuable products are manganese and copper.

Baryta is produced in Kutais by six enterprises; the output in 1910 amounted to 1,750 metric tons, or five-sixths of Russia's total output.

Coal is mined chiefly at Tkvibuli, in Kutais, where the mines are served by a branch railway. This coal yields a dense strong coke useful for metallurgy. A very little coal is also produced in Kuban, and lignite of poor quality is found and consumed locally in the Migri valley, at Manglis and Borchka. Unexploited deposits exist on the Black Sea coast, where the Tkvarcheli forest is believed to cover 54,000 acres of coal of excellent quality. A large deposit occurs near Tiflis, in the valley of the River Oltinsk, and coal has recently been found at Akmetovskoi. The production in recent years shows a steady increase, the total output having been 45,700 metric tons in 1910, 51,000 in 1911, 69,000 in 1912, and 75,000 in 1913.

Copper.—The rich copper deposits have hitherto been only partially worked, but three distinct areas are now exploited by foreign capital:

(i) The Kedabek mines, in Elisavetopol (north-east of Lake Gokcha), are worked by the American firm of Siemens Brothers. There are three mines, at Kedabek, Kalakent, and Karabulakh, which are connected by a metre-gauge railway. The ore contains from 2 to 20 per cent. of copper, and the production of copper in 1913 was 1,272 metric tons. Benzene brought from Baku by pipe line is used for smelting, whereas the companies referred to below use electricity. Siemens Brothers had begun before the war to exploit copper at Kvartshana in the Province of

Batum, and were about to erect blast furnace smelting works there.

(ii) The Allahverdi, Aktala, and Shambru mines, in the Lialvar Mountains (Tiflis), are worked by the French Compagnie Métallurgique et Industrielle du Caucase. At Allahverdi, the most productive mine, the ore (copper sulphide) contains 7·18 to 18·56 per cent. of copper, and the output of copper in 1913 was 4,760 metric tons.

(iii) The Dzansul, Chiakathevi, and Erga mines, on the borders of the Provinces of Batum and Kutais, are exploited by the Caucasus Copper Co., a British company formed in 1900. Heavy initial outlay and climatic difficulties necessitated a large capitalization, but in 1913, when some 12,000 workmen were employed, the profit obtained was £87,800. The ore in the mines contains from 16 to 18 per cent. of copper. In 1912 the production was 40,000 metric tons of ore and 3,000 metric tons of copper, but in 1913 the progress of the company was described as disappointing, the amount of copper produced being only 3,280 metric tons.

In addition to the above, there are various native enterprises. In the Okchi valley in the Sangesur district of Elisavetopol, old mines of great productivity have been reopened, but pack-horses are the only available means of transport. The Katar mine in Sangesur is now worked by electricity. In the Pambak Mountains, also in the Government of Elisavetopol, there are mines at Delijan, Sirimadan, Sagali, Mishkan, and Seifalu; at the last of these the ore yields from 20 to 30 per cent. of copper. The most important native companies are the Melik Azariantz, the Kunduroff, and the Grielsky.

The output of copper in Caucasia was 7,536 metric tons in 1908, 9,520 in 1909, and 7,631 in 1910. In 1912, 303,225 metric tons of ore were mined, of which 200,000 were smelted, yielding 9,270 metric tons of metal. In 1913 the production was 9,220 metric tons. The figures for 1912 and 1913 refer to the British, French, and American companies only. It is not clear whether those

for earlier years include also the production of the native undertakings, but in any case their quota is comparatively small. In 1913 Caucasia furnished 31 per cent. of the total Russian output. All Caucasian copper is disposed of in Russia.

Unexploited copper exists in the Naltchinsky Hills and over a small area on each side of the Ossetian Military Road; in both cases the deposits are estimated to be rich.

The production of *Glauber's salt* in Tiflis in 1910, amounting to 725 metric tons, represented nearly half of Russia's total output.

Iron is worked only spasmodically. It occurs chiefly in the Government of Elisavetopol, at Chinarlidz, where the veins are from 2 to 21 metres thick, and as haematite at Sirimadan in the Pambak Mountains and in the Boyan valley. Nearly 2,000 metric tons were produced in 1908, but in no subsequent year does anything approaching that amount appear to have been obtained.

Lead.—There are extensive deposits of argentiferous lead, but they have been little worked. The largest production is that of the Alagir Smelting Co. in Terek; but the metal also occurs in the Lialvar district, in the upper valley of the Kura, and near Kedabek, and shortly before the war was found near Akmetovskoi station in Kuban.

Manganese.—The principal deposit covers an area of nearly 100 square miles in the Kvirili valley in the Government of Kutais, the head-quarters of the industry being at Chiaturi. The ore contains on an average 40 per cent. manganese, 0·16 per cent. phosphorus, and 8 per cent. silicon, but in some workings the proportion of manganese is as high as 50 per cent. The ore is got out by means of hand picks, and is sorted by hand in a primitive way. It is soft and readily mined, and the firmness of the rock renders extensive timbering unnecessary. The miners do not fully exhaust the drifts, but work on them until they become dangerous or, on account of diminishing yield, unremunerative, a point which is soon reached owing

to unscientific methods of removal. Much ore is consequently wasted. Since 1909 an increasing amount of ore has been washed for the preparation of ferro-manganese, and this has resulted in the serious pollution of the River Kvirili, which runs through the mining district. Regulations have been made to control the practice of discharging refuse into the river, and plans formed to collect the refuse-laden water in an artificial basin, where it could be purified and utilized for generating electric power to be employed in the ferro-manganese furnaces. Little improvement, however, had been effected by 1914.

Many small native firms are occupied in manganese-mining. A little before the war foreign capitalists were acquiring manganese-bearing land, which is usually leased in small lots of from half an acre to 50 acres in extent; about 1910 there was an extensive acquisition of unworked land by German firms. The recent tendency has been for the control of the industry to pass from small to large concerns.

There was a heavy slump in manganese just before 1908, but since that year the output has greatly increased: in 1910 it amounted to 548,300 metric tons; in 1911 it fell again to 451,600 metric tons, but in 1912 it rose to the high figure of 913,500 metric tons, and in 1913 to 1,051,500 metric tons. Nearly the whole output is exported; export figures are given on pp. 83 and 84. The trade was very heavily hit by the war.

Chiaturi competes with India and Brazil for pride of place as supplier of manganese to the world. It has, however, been handicapped by difficulties of transport, though favoured to some extent in the matter of freight rates. The Sharopan–Sachkeri railway lies some distance from the mines, and the ore has to be conveyed in carts or on pack animals to the station, whence further carriage to Poti or Batum is both slow and expensive. The Association of Manganese Producers (see p. 79) had up to 1914 failed to secure from the State anything beyond promises of improvement.

Other places in Caucasia at which manganese occurs are Kvartala in Batum, where the French Manganese Ore Co. had arranged for the erection of plant at the end of 1913, Seifalu in Elisavetopol, and in the neighbourhood of Samtredi and Novo-Senaki.

Huge beds of *marl* are now being exploited near Novorossiisk by the cement companies there.

Salt.—There are rock-salt deposits in Erivan and Kars, and a certain amount of evaporated salt is produced in Baku and Daghestan. The total output of salt in 1910 was 28,340 metric tons, which consisted of 16,600 tons of rock-salt from Erivan, 6,930 tons of rock-salt from Kars, 4,370 tons of evaporated salt from Baku, and 440 tons of evaporated salt from Daghestan. The total output in 1911 amounted to 37,830 metric tons, and in 1913 to 32,260 metric tons.

Zinc is worked by the Alagir Smelting Co. at Sadon and Alagir, and from blende ore near Vladikavkaz. The company's works, which are 60 miles from the mines, are fitted with modern plant. In 1914 the company were planning a new exploitation, on a large scale, of both lead and zinc. The output of zinc in 1910 was 3,400 metric tons, and in 1912 the combined production of zinc and argentiferous lead was 26,000 metric tons.

Other Minerals.—At Soglik, near Dash Kessan, in the Gokcha range (Erivan) there is an inexhaustible supply of *alunite*, containing 37·58 per cent. of alum, but it is very little worked. *Antimony* is mined in small quantities in Tiflis. There is *arsenic* ore at Bechenakh, but up to the present it has not been exploited. There is a small output of *asbestos* from Sharopan, Vzhinevi, and Lechgum in Kutais. There are excellent *bitumen* beds on the Black Sea coast, and *asphalt* is a by-product of the petroleum industry. *Cobalt* is mined in small quantities in Elisavetopol. White *diatomite* (infusorial earth), containing 87 per cent. of silica, is worked at Kissatip, near Akhaltsikh (Tiflis). *Emery* is found at Karabulakh (Elisavetopol). *Gold* exists in very small quantities in the alluvial deposits of the Alindja river, and in the ore of the

Kedabek copper mines. *Graphite* and *mercury* have recently been found. *Pyrites* is worked for sulphur in Elisavetopol and Tiflis, and sulphur is also obtained at Bechenakh and Gunur, in Kutais.

(5) Mineral Oils

(*a*) *Sources of Supply*

Mineral oil, the great source of Caucasian wealth, is found chiefly in the Governments of Baku, Terek, and Kuban, although small quantities occur elsewhere. Hitherto by far the richest oil-producing area has been that of Baku, comprising the Apsheron Peninsula, Cheleken Island and Holy Island, and the outlying district of Benagadi. In the Apsheron Peninsula lie the older oil-fields: the five belts of Balachani, Sabunchi, Romani, Bibi-Ebyat, and Zabrat, and the comparatively newly-discovered oil district of Surachani, about 12 miles away. Second to those of Baku in importance and apparently of increasing productivity are the Grozni fields in Terek Province. The Maikop oil-fields, in Kuban Province, have since 1912 yielded unsatisfactorily.

In 1908 the Caucasian oil-fields supplied about 22 per cent. of the world's total production, but the proportion has sunk very considerably since then. General figures of the output from 1910 to 1916 are given in Table II of the Appendix (p. 93).

The products of the mineral oil include illuminating oils, engine and cylinder oils, solar oils, goudron (asphalt), benzene, residuum (*ostotki*), and crude oil (untreated). Of these, *ostotki* was for years treated as waste, but it is now by far the largest product, having superseded kerosene, which bears a heavy duty, while *ostotki* is untaxed; it has a large sale as fuel for factories, railways, and steamships. Balachani oil is the heaviest in quality; *ostotki* is not so readily formed from the Bibi-Ebyat and Grozni products. Cheleken Island and Telav produce ozokerite (or paraffin wax). The lowest percentage of benzene

is yielded by Balachani. Grozni oil is particularly adapted for the manufacture of first grade petrol, great quantities of which have accumulated there during the war.

The following particulars may be given of the chief oil-fields:

(i) *The Baku Fields.*—The first well was bored at Baku in 1871. Since that year the oil-fields have been developed one after another, with capital supplied partly by the Swedish firm of Nobel Brothers, and partly by the French Rothschilds and others. The Balachani–Sabunchi–Romani field occupies about 2,640 acres on a plateau a few miles from the Caspian Sea.[1] At Sabunchi eight very productive belts are known. At Romani there was a natural depression into which ran the water and refuse from adjoining properties, forming a lake of 432 acres; this was drained in 1904 by the Moscow Caucasian Co., by means of a subterranean channel, and an outlet into the Caspian Sea was also provided, which serves as a permanent drain for the whole oil-field. Bibi-Ebyat contains five rich belts, but its productivity is declining. Puta, a continuation of the Bibi-Ebyat fields, has been very little developed. Zabrat has been prospected by a French company, but the yield is only spasmodic.

Between 1908 and 1911 there was a marked decrease in production in all but one of the old Baku oil-fields, as seen by the following comparative table:

	Balachani.	*Sabunchi.*	*Romani.*	*Bibi-Ebyat.*	*Total.*
	Metric tons.	Metric tons.	Metric tons.	Metric tons.	Metric tons.
1908	1,124,784	3,181,936	1,222,304	1,914,128	7,443,152
1911 [2]	755,200	2,131,200	1,019,200	1,225,600	5,131,200

After 1911, in spite of new borings, the production, though increased, did not reach the 1908 level, whilst after 1914 the Surachani output is reckoned in with the old Baku output, and the separate yield of the original oil-fields cannot therefore be calculated. There

[1] On this plateau 120,000,000 gallons of oil were thrown up in 1873 before it was understood how to conserve it.

[2] Ten months only.

are, however, many localities left in the Apsheron district to be tested when the exhaustion becomes more pronounced.

Surachani, the new Baku oil-field, gives a supply of natural gas, which, through the enterprise of the Baku Naphtha Co., is now conducted in 8 and 10 inch pipes to the various oil-fields, where it is used for boiler-heating. Some wells, about 1,200 ft. deep, yield about 5,000,000 cubic ft. of gas daily. Surachani wells also produce white oil, a medicinal product, of which the output is about 48 tons daily. Crude oil, which lies beneath the natural gas, has also been exploited with good results.

In 1902, 24,000 workers were employed at Baku ; by 1916 this number had doubled. The average number of producing wells in the Baku district in 1914 was 2,894, the output per well before exhaustion being from 40,000 to 50,000 tons.

Holy Island produces oil which is shipped by Nobel Brothers in its crude state to the Volga for fuel. The output in 1914 was 94,000 tons.

Cheleken Island produces a heavy petroleum, from which ozokerite is extracted. In 1912 the yield was 209,000 tons, but since that year it has greatly declined. The oil is sent abroad to be refined.

Benagadi produces a very heavy oil, pumped through pipe lines to the railway. The Benagadi output was steadily increasing in 1914. Digga and Sarai localities, near Benagadi, are both petroliferous, and in 1914 were about to be exploited by Baku companies.

The Baku oil-fields seem to have escaped damage and pillage during the military events of 1918.

(ii) *The Grozni Fields* consist of a belt of petroliferous land, 1,800 ft. wide and about 7 miles long. The oil-bearing strata usually lie 1,500 to 1,800 ft. below the surface, but sometimes even deeper, and the deposits are impregnated with lime. The Grozni oil often issues in great spouts, but the life of the wells is usually short. At Mamakai the oil reaches the surface, and has been obtained from hand-dug wells for fifty years past.

The European Petrol Co., a British concern, was founded in 1893 to exploit the Grozni oil, and another British company, the Kazbek Syndicate, struck a prolific fountain in 1903. The Anglo-Terek Co. found oil on the western field in 1907 at 2,500 ft. deep, and the parallel ridge of Sundja is expected to prove rich. The area occupied by wells in 1913 was 2,497 acres, in the hands of twelve firms. Several new fields were proved in 1913 in the neighbouring localities of Belik and Chermoff, and 200,000 claims have been staked; the whole country round Grozni for a radius of about 30 miles has been covered with oil claims. The principal new oil districts are Sleptsovskaya, Voznesenskaya, Broguni, Kakhanovskaya, Isstissu, and Chir-Urt nearer Petrovsk. Pipes from both eastern and western fields take the oil to Grozni station, and in 1914 pipes were completed leading to Petrovsk, on the Caspian Sea.

In 1917 the Grozni oil-fields employed 9,000 workmen. The average number of producing wells in that year was 398.

The Grozni oil-fields suffered much more than those of Baku or Maikop in 1918. Almost all the oil-wells and plant have been destroyed or burnt, so that production will be impossible for some years to come.

(iii) *The Maikop Fields* have been scientifically exploited since 1908 only, chiefly by British capital. There are four districts, Shirvansky, Apsheronsky, Nephtianoi, and Hadizhensky, and the wells number about 200. Before the completion of the new Armavir–Tuapse railway, the oil went either to Novorossiisk or Petrovsk. There are two pipe lines, one from Maikop to Tuapse, the other from Shirvansky to Ekaterinodar for transport on the Ekaterinodar--Novorossiisk branch railway; both pipes belong to the Maikop Pipe Line and Transport Co., Ltd., a British concern. Nearly all the Maikop oil has been consumed in Russia. It is refined at Ekaterinodar. The output has been very disappointing, and has steadily declined since 1912.

(iv) *Other Sources.*—Berekei and Kaikent in Daghestan have been exploited, but in both the oil is damaged by the inflow of sulphurous water. Berekei was closed in 1907; Kaikent, in the hands of the Anglo-Russian Petrol Co., only yields spasmodically.

Kaluga, in Kuban Province, showed oil in 1907, but work only began in 1914. The Vladikavkaz Railway Company hold 15 plots of promising petroliferous land there, and intend to use the oil for the railway. The prospects are good.

In Tiflis Government two localities have been exploited, one east of Tiflis and the other at Telav. In 1904 the Southern Oil-Fields of Russia Company was working there, and in 1914 the Tiflis locality was again being explored.

In 1914 prospecting was going on at many other places, where there are unmistakable indications of large quantities of oil, notably at Guria, where a thick black oil was found, and at Shemakha, Jevat, and Lenkoran. Jingy (or Djeng), near Shemakha, forms the extremity of a huge oil-field with a reputed area of 70,000 square miles, lying chiefly in the Ural Province. Nobel Brothers have already sunk wells there with good results; in October 1915, 225 plots of petroliferous ground near Borz and Jingy were declared open for new claims.

Oil is also obtained from numerous wells on small plots worked by peasants, especially in the Grozni and Maikop districts.

(*b*) *Methods of Working*

At Baku the Russian system of boring is still in use, the American, although generally superior, being declared to be unsuccessful on account of the frequency of landslips and fractured tubing. Another view, however, is that the continued use at Baku of a comparatively wasteful system has been a factor contributing to the successful competition of American oil in the world market, in spite of the fact that at Baku a few square miles produce as much oil as several

thousands of square miles in America, and that a single Baku oil fountain has actually yielded as much in one day as 25,000 wells in America. The American system has been adopted at Grozni and Maikop. Manila ropes have been very generally replaced by wire ropes. Pumps cannot be used at Baku to raise the oil, and it is therefore baled by steam or electric power; air-lifts have recently been found successful. In default of fresh water, steam at Baku has to be obtained from sea-water, which causes rapid destruction of the boilers.

Oil is conveyed to the Black Town (Baku) refineries in pipe lines, of which in 1906 there were 39 in private ownership besides the State pipe lines. Large firms had their own pumping stations in addition to those provided for general use. Fountain oil was pumped direct to the stations and measured there. Some of the Bibi-Ebyat oil goes by barge.

From Baku the oil has four means of transit: by rail to Batum or Poti; by pipe line (kerosene) to Batum; by rail to Petrovsk; and by tank-steamer to Astrakhan and thence up the Volga. The last route, by which the Volga factories are supplied, is only open from April to October.

Electric power was steadily replacing steam power on the oil-fields in 1914. The Spies Petroleum Co. at Grozni run their works almost wholly by it. There are generating stations at Sabunchi, belonging to Nobel Brothers; at Zabrat, belonging to the Société de la Caspienne et de la Mer Noire; at White Town (1,200 horse-power); and at Baieloff (4,500 horse-power). At Sabunchi and Zabrat the Surachani gas is used to generate electricity.

(6) Manufactures

Ciscaucasia and Transcaucasia have each their own characteristic industries, which, in the former case, are those proper to a region predominantly agricultural, and in the latter are dependent on the output of the oil-fields.

The *caviare* industry of the Caspian littoral is declining, but is still important (see p. 62).

Cement is made at Novorossiisk, Gelendjik, Tuapse, and Yeisk. It is used for lining oil wells, and also for harbour works and other purposes. There were nine large cement factories at Novorossiisk in 1917, with an annual output of 4,600,000 barrels, the most important being the Black Sea Cement Manufactory, the Franco-Russian Cement Manufactory, and the Zep Cement Works.

Leather-work is a fairly extensive industry, of which the chief centres are Alexandropol, Elisavetopol, Shusha, and Tiflis. Tanning is done at Tiflis, and saddlery is well made in Daghestan and the Black Sea districts.

Metallic and Allied Industries.—The copper and zinc smelting works have already been mentioned (see pp. 63–64 and 67). There are iron foundries at Ekaterinodar, Baku, Tiflis, Batum, and Armavir. 'Colonist' reaping machines are made at Novorossiisk, and galvanized iron roofing and hardware goods at a factory at Baku. Among manufactures subsidiary to the oil industry are those of oil-cases and oil-cans, carried on at Baku and Batum, and of wire rope, carried on at several factories at Baku. The manufacture of small-arms, once a flourishing industry, is declining, but is still carried on at Tiflis and Nukha and in the bazaars of Daghestan and Sukhum. The number of skilled native workers in enamel, filigree, and inlaid metal-ware is also decreasing.

The *milling* industry is second in importance only to the refining of oil. There are many flour-mills worked by water-power; those in Stavropol produce 300,000 tons of flour per annum, and those in Kuban, about the same amount; the mills of the Black Sea district give some 20,000 tons yearly. Besides the flour-mills, there are also mills for crushing sunflower seed, linseed, and cotton seed.

The *oil refineries* are the most important manufacturing enterprises in the country. They exist at Baku,

Grozni, and Ekaterinodar, and, on a smaller scale, at Armavir. There are a number of large refineries at Black Town, near Baku, where crude oil is refined to produce kerosene. In 1914 the oil products received from the stills amounted to 4,354,000 tons, while in 1916 there were nearly 5,000 men employed. At Ekaterinodar the oil from Maikop is treated, and the decline in the production from that field has greatly reduced the industry there.

Potash is made in Kuban from sunflower stalks, and in 1910 a combine of eighteen firms of potash manufacturers was formed. The industry has doubtless been affected by the decline of sunflower cultivation (p. 54).

Of the *textile industries*, which are in a very backward state, silk-weaving and carpet-making are the most highly developed. Silk is woven at Tiflis, and since the revival of sericulture, steam silk-mills have been started at Shusha and in the Elisavetopol Government. Felt and carpets are made at home by women—chiefly at Shusha, but also at Akhaltsikh, Akhalkalaki, Gadrut, Kasapet, and Kubrassy—with wool bought from the Tatars. Both hand-knitted and woven woollen goods are made. Cotton is spun at Tiflis and Akhaltsikh, and a rough cotton stuff called *khami* and a little linen of indifferent quality are woven by hand.

There are seventeen *tobacco* factories in Caucasia, six being in Tiflis, four in Kuban, two in Daghestan, two in Baku, two in Sukhum, and one in Terek. The industry is controlled by a dozen large firms, and the output in 1914 was 2,395 tons.

Wine-making and Distilling.—There is a good deal of wine made, especially in the Province of Kutais; the best quality is produced in the Gelendjik district, and Echmiadzin is one of the great centres. The best known type of wine is the Riesling. At Abrau, a Crown estate near Novorossiisk, is made the Abrau-Dursan champagne, which is considered equal to a good French champagne. The total output of wine in Caucasia was 27,449,350 gallons in 1911 and nearly

22,000,000 gallons in 1914. Were French methods of manufacture employed more extensively, the industry might be greatly developed. There is an Italian firm at Kislovodsk in Terek which makes Riesling and other wines under modern conditions.

Distilling is in part an independent industry and in part a means of utilizing the inferior wines. In 1913 there were 15 distilleries—8 in Kuban, 4 in Terek, 2 in Stavropol, and 1 in Kutais—and the output of alcohol in that year was 8,193,000 gallons, of which more than two-thirds were distilled in Kuban.

Other industries of the country may be very briefly enumerated. A *tea* factory has recently been opened at Chavka, and has an annual output of about 55 tons, and other factories are (or were) being built with Government aid at Baku and Ozurgeti. A *beet-sugar* factory, started in 1913 at Gulevichi, was brought to a standstill for want of beetroot in 1914. There are three *saw-mills* at Tiflis ; the Italian firm of Sbrajavacca has saw-mills at Socilava and Poti, which turn out 300 cubic metres daily, and Ananov Brothers have small saw-mills in Kutais, driven by electric power. A factory for making *bamboo furniture* was opened at Chavka in 1907. There are nine *brick* and *tile* factories at Baku and four tile factories at Tiflis, while *pottery* works have been opened at Ksauka, Tiflis, by an Italian firm, which also makes tiles. *Soap* is made at Tiflis, and *sulphuric acid* at Baku.

(7) Power

In 1914 there were ten chief power-stations : near Beli Ugol on the Podkumka river (1,000 horse-power) ; near Sukhum on the Besletk river (owned by the Sukhum Electric Co.) ; near Gagri on the Jockvar river (working the climatic station) ; at Batum (water-driven), supplying Batum with electricity ; at Kutais, supplying power for Ananov Brothers' saw-mills ; at Sanain (700 horse-power), belonging to the Caucasus Metallurgical Co. ; at Katar copper mines (Sangesur

district); at Dzansul copper mines (1,000 horse-power); and two at Erivan.

Smaller electric plants are to be found at New Athos Monastery (at Goro); at Borzhom, on the Grand Ducal estates; and at Akhalkalaki, in private hands.

The electric power-stations on the Baku oil-fields have already been mentioned (see p. 73).

The water-power offered by the rapid streams of the Caucasus has hitherto been almost entirely neglected, but in 1914 an important scheme was set on foot for the erection of two large power-stations, one on the Terek at Kazbek on the Georgian Military Road, and the other at Elenoffka, in Erivan, utilizing the waters of Lake Gokcha. The concession for the erection of turbines and generators for supplying power to all the industrial centres of Caucasia as well as for the lighting of cities was granted to a British company, and preliminary work had been carried out by August 1914.

A scheme was also under discussion in 1913 and 1914 for utilizing the refuse-laden overflow of the River Kvirili for generating electric power to be used in ferro-manganese furnaces.

(C) COMMERCE

(1) Domestic

(*a*) *Towns, Markets, and Fairs*

Baku, besides being the refining centre for the oil produced in the neighbouring fields, is also a distributing centre for the imports of Central Persia and Transcaspia. The volume of trade which passed through Baku to and from Persia and Russian Central Asia in 1912 amounted to over 5,000,000 tons, and was steadily increasing in 1914 at the expense of that of the trans-Armenian and trans-Mesopotamian routes. The population of Baku and the adjacent oil-fields in 1914 amounted to nearly 380,000. In 1909 the municipality raised a loan of £2,842,000 (of which £1,300,000 was

subscribed in London) for the purpose of a new water-supply, drainage, and the construction of an electric station. Only the first of these three works has been carried out. A description of the port of Baku is given above, p. 45.

Ekaterinodar is the centre of the increasingly important trade in tobacco. It has an annual fair, at which the value of goods exchanged is said to be about £400,000. There are several refineries, dealing with oil from the Maikop fields. As the town is both an agricultural and an industrial centre, experimental fruit-farms and technical schools have been opened there.

Tiflis, the seat of Government, is a fine modern town, with electric light, electric trams, and cold storage facilities. Only in the oriental quarter are there open bazaars. It is the distributing centre for Russian manufactured goods, and also does a large transit trade in Persian exports.

Vladikavkaz is the principal town of Ciscaucasia and an important agricultural centre. *Elisavetopol* is a centre for trade in wine, fruit, and cotton; *Erivan* and *Kutais* for trade in wine and fruit. *Stavropol*, *Akhaltsikh*, *Alexandropol*, *Kars*, *Grozni*, *Nukha*, and *Maikop* are all agricultural centres, the last especially for wine, while Nukha, Akhaltsikh, and Alexandropol are particularly concerned with fruit. Grozni and Maikop are also petroleum centres.

The principal centres of industry are *Tiflis*, *Baku*, *Batum*, *Ekaterinodar*, *Shusha*, *Novorossiisk*, and *Chavka*. Batum is declining as an industrial centre, whilst Baku and Ekaterinodar are progressing; both these last-named towns doubled their budgets between 1904 and 1909.

All Transcaucasian towns have their bazaars, and in the less populated and poorer districts monthly fairs take the place of shops.

Batum, Novorossiisk, Poti, and other ports are described above (pp. 42–46).

(*b*) *Organizations to promote Trade and Commerce*

It is only within recent years that any efforts towards the organization of the trade and industry of Caucasia have been made, but before the outbreak of war a good deal had already been done in that direction. The first chamber of commerce in the country was established at Batum in 1910. The number of trade associations increased rapidly, especially in Ciscaucasia, where the Cossacks take kindly to co-operation, and many credit societies were formed.

The chief organizations confined to particular industries were the Association of Baku Naphtha Producers, the Manganese Producers' Association, and the Caucasian Cotton Growers' Association. The first of these levied a tax of 5*d.* a tin on oil products, which it expended on hospitals, &c. It had a statistical bureau, published journals, and held an annual conference which was attended by delegates from the committees of the various oil interests and by a representative of the Minister of Agriculture. The Manganese Producers' Association also levied a tax, which was devoted to improvements in plant, &c. It brought pressure to bear on the State to improve railway facilities and rolling-stock, and was anxious to secure the connexion of the mines with the railway, but did not succeed in this. One of the objects of the Caucasian Cotton Growers' Association was to increase the cultivation of cotton in Caucasia and Russian Central Asia, so that the Central Russian mills could be fed entirely with home-grown supplies. Extensive irrigation was among its schemes.

(*c*) *Foreign Interests*

The largest field for the investment of foreign capital in Caucasia is of course the oil industry. This being a matter of international finance, it is impossible to gauge with precision the share which any particular nation has therein; but it was stated in 1919 by an expert of the *Mining Journal* that the controlling

power was the Deutsche Bank. Of the firms engaged in extracting oil, the Swedish house of Nobel Brothers has the largest interests, its production being double that of any other single firm. French companies financed by the Rothschilds also figure largely in the Baku fields. The chief of these is the Société de la Caspienne et de la Mer Noire, which in 1912 combined with others, among them the British concern known as the Schibaeff Company, to form the Royal Dutch Shell Combine, which is said to be responsible for 11·8 per cent. of the total Baku output. British interests in the Baku fields are comparatively small, but at Grozni and Maikop they are predominant. During the Maikop boom sixty-six companies were formed in London, but of these only five are still working. In 1913 a British company, the Guria Petroleum Corporation, Ltd., acquired a lease of some 70 square miles of land between Batum and Poti. Estimates of the total value of British capital invested in Russian oil-fields vary from £10,000,000 to £17,000,000. Armenian interests are rapidly increasing, especially in the new oil districts round Grozni.

Copper is mainly mined with the aid of British, French, and American capital. The manganese industry, on the other hand, has hitherto been for the most part in native hands, though in recent years British, Dutch, German, and French have begun to participate in it.

Franco-Jewish financiers supplied the capital for the construction of the Transcaucasian railway, which was taken over by the State in 1906. In connexion with the railway expansion schemes of more recent date the Anglo-Russian Trust Company, having a capital of £1,000,000 and debenture stock amounting to £500,000, was formed to place the shares of the Armavir–Tuapse, the Black Sea–Kuban, and the Kakhetian railways on the London market, principal and interest in each case being unconditionally guaranteed by the Russian Government. The same company also invested in the municipal 5 per cent. gold bonds of the city of Baku.

British capital has played an important part in various other public enterprises.

Certain minor commercial undertakings, such as pottery-making at Tiflis, wine-growing in Terek, and timber exploitation in the Rion district, are in Italian hands.

(*d*) *Methods of Economic Penetration*

For some years past the Germans have adopted their usual business methods with success in the Caucasus.[1] They appointed agents who spoke Russian fluently, and who were invested with full powers to act for the firms they represented. A single firm frequently offered widely varying lines of goods, of which the agents could produce samples. All catalogues and price-lists were printed with Russian quotations in the Russian currency, and were therefore much more popular than those of British firms, which were invariably presented in English only, with prices quoted in English money.

The nearest British agencies were at Rostov-on-Don. British firms were unwilling to give the credit expected by Russian merchants, and appeared indifferent to local prejudices and preferences in regard to the nature of goods to be supplied. They were, therefore, at a disadvantage in competing with the more enterprising German. In certain lines of goods, such as ready-made clothes, haberdashery, boots and shoes, drugs, all kinds of fancy goods and stationery, Germany and Austria-Hungary held the market; and they were beginning to encroach on the steel, agricultural machinery, engine, and motor trades, once almost exclusively British.

(2) Trade with Russia

Most of the manufactured goods required by Caucasia are supplied by Russia, the chief exceptions being machinery and other metal goods; produce of various

[1] In 1916 a German-Georgian society was established in order to cultivate economic intercourse between the two countries.

kinds is sent in exchange. Ciscaucasia, indeed, produces little that cannot be obtained in other parts of the Empire, except the oil of Grozni and Maikop; but Transcaucasia is in somewhat the same relation to Russia as a sub-tropical colony to a northern mother country.

Russia now takes by far the greater part of the Caucasian oil output. At one time no more went thither than was shipped to foreign countries, but the labour troubles of 1905 combined with the competition of America to deprive Baku of its market not only in China and Japan but even in Arabia and Mesopotamia. Compensation for this loss has, however, been found in the increased demand from Russia. In 1913, out of 6,000,000 tons of oil products sent out of Caucasia, 5,000,000 tons went to Russia. Of these, at least 3,000,000 were residuum, which is used as fuel for steamers, locomotives, and factory boilers; 1,000,000 were crude oil; and 1,000,000 refined oil. The export to foreign countries, on the other hand, consisted almost exclusively of lubricating and illuminating oil.

Other commodities which Caucasia sends to Russia are copper, tobacco, wine, raw silk and cocoons, wool, cotton, and fruit. In the case of tobacco, cocoons, and wool, there is also a foreign export, but it is small in comparison. Russia also takes practically all the cement[1] which is shipped from Novorossiisk, and probably the greater part of the live-stock.

(3) Foreign

(a) *Exports*

It is not easy to come to any conclusion as to the value of the export trade of Caucasia immediately before the war. No statistics are available for shipments from the smaller ports or for overland trade with Turkey and Persia, but it is unlikely that either was of considerable value. A more serious difficulty is with regard to the value of trade passing through the

[1] 234,000 tons in 1910; 301,000 tons in 1912.

three chief ports—Batum, Novorossiisk, and Poti. The latest year for which complete figures are available is 1908, when exports from Batum amounted in value to £3,242,138, from Novorossiisk to £2,957,686, and from Poti to £478,345, so that the total value was £6,678,169. In 1913 the total exports from Batum and Poti amounted in value to £5,388,172. A moderate estimate for the export trade of all three ports in that year would be about £14,000,000. If sales to Russia were reckoned as part of the export trade, its total value would hardly have been less than £30,000,000.

The following table shows the value of the principal exports from the three chief ports in 1908:

Article.	*Batum.*	*Novorossiisk.*	*Poti.*	*Total.*
	£	£	£	£
Carpets . . .	36,000	—	—	36,000
Cement . . .	—	26,533	—	26,533
Grain and flour . .	40,402	1,573,197	12,735	1,626,334
Liquorice . . .	93,765	37,687	—	131,452
Manganese . .	11,130	—	458,250	469,380
Oil products . .	2,441,649	363,747	—	2,805,396
Oil-cake . . .	19,334	626,900	—	646,234
Potash . . .	—	68,632	—	68,632
Seeds (linseed and sunflower) . . .	—	77,574	—	77,574
Silk and cocoons .	87,000	—	—	87,000
Timber . . .	348,200	47,975	6,190	402,365
Tobacco . . .	—	25,272	—	25,272
Wool . . .	48,363	15,624	—	63,987

A few additional particulars may be given with regard to some of these exports:

Grain and Flour.—Wheat and barley were shipped largely from Novorossiisk, mainly to Germany direct or *via* Holland, while the export from Poti consisted almost entirely of maize destined for Turkey, Germany, and elsewhere. The values of the Batum and Poti exports in 1913 were £201,900 and £99,815 respectively.

Liquorice root was shipped from Batum mainly to the United States. The value of the export in 1913 was £148,700, but this was above the average, and the export is said to have ceased.

Manganese exported from Poti in 1913 amounted in value to £649,780, and that from Batum to £399,800.

Most of the Poti manganese went to Germany, which country in 1913 imported from Russia nearly 447,000 metric tons, most of which, if not all, must have come from Chiaturi.

Oil.—The market for western Europe has been captured by America, but considerable quantities were sent from Caucasia to eastern Europe. The largest export is from Batum, whence in 1913, 610,400 tons were shipped, amounting in value to £2,817,300. No details of the destination of this oil are available. The shipments from Novorossiisk, exclusive of those to Russia, amounted in 1913 to 170,339 tons, and were distributed as follows:

	Tons.
France	59,076
Holland	17,000
Great Britain	54,993
Germany	22,527
Egypt	12,300
Gibraltar	4,443

In the same year 26,500 tons were exported direct from Baku to Persia.

Oil-cake.—The export from Batum in 1913 was 12,445 tons, valued at £77,200. No figures of value are available for the much larger export of 149,244 tons from Novorossiisk. Germany was the chief buyer.

Seeds.—The export of linseed seems to have ceased, but a certain amount of cotton seed was exported to Liverpool, and the export of sunflower seed rose from 10 tons in 1908 to 5,873 tons in 1913.

Silk and *cocoons* were exported from Batum only, and in 1913 the value of the export was £207,700. In 1911, and presumably in other years, the greater part of the export consisted of cocoons imported from Persia or Central Asia. Nearly all the cocoons from the Caucasus went to Russia.

Timber was shipped from all three ports, but only at Poti was there a steady increase in the quantity exported, which rose from 1,541 tons in 1909 to 11,414 tons in 1913; this was due to Italian enterprise in the

Rion district (see above, pp. 61, 76). The export values from Batum and Poti in 1913 were £27,900 and £83,590 respectively.

Tobacco was exported from Novorossiisk, and, in much smaller quantities, from Batum. The Novorossiisk export gradually increased, as the quality of Kuban tobacco became better recognized in European markets, and during the Balkan wars Caucasian tobacco began to supplement Turkish. In 1913 the total tobacco export amounted to 4,950 tons, of which 2,000 tons went to Egypt and most of the rest to Germany and France, the United States and Great Britain at the same time taking small quantities. The Sukhum merchants were anxious to increase the export to the United States, but were opposed by the American Tobacco Trust. The value of the export from Batum in 1913 was £51,100.

Wool was exported mainly from Batum, but also from Novorossiisk. The shipments from Batum in 1913 amounted to 4,677 tons, valued at £222,800, and those from Novorossiisk to 185 tons. In all about 17,000 tons of wool were produced in Caucasia in that year, the balance being either sold locally or sent overland to Russia.

(*b*) *Imports*

The imports of Caucasia reach a much lower total value than the exports. Very few statistics are obtainable, no values being given in the British consular reports except for 1913, and then only for goods received at Batum. Imports at Novorossiisk were increasing steadily before 1914, but those at Poti were quite inconsiderable.

Of the total import value of £582,532 at Batum in 1913, £235,800 was assigned to sundries, and this heading must include all the textiles, stationery, china and glass, leather goods, fancy goods, &c. The chief imports specified were tin plates (for oil cases and cans) and machinery, of which the respective values were £112,832 and £106,500. The tin plates were supplied

largely, but probably not exclusively, by Great Britain and Turkey. The machinery came from America, Great Britain, and Germany, as well as from Russia. Agricultural machinery was supplied chiefly by the United States, with the exception of ploughs, which for the most part came from Germany. British agricultural implements, though frequently found in Ciscaucasia, are rarely seen in Transcaucasia. France took the leading part in supplying motor-cars, though they were also imported from Germany, Switzerland, Italy, the United States and Russia, and a few of superior quality came from Great Britain. Hardware, house-fittings, lifts, and central-heating apparatus were imported exclusively from Germany. Copper wire and copper sulphate came in considerable quantities from Great Britain, which also supplied fire-clay, iron-ware, carbolic acid, and the best quality of belting, the rest of the belting coming from Russia and Germany. Steel for Baku came exclusively from Austria-Hungary and tiles from France. Coal was imported at Novorossiisk from Great Britain and Germany: in 1913 Great Britain supplied 40,000 tons and Germany nearly 11,000; in 1914 Great Britain sent 164,000 tons. Small quantities of chemical fertilizers for experimental purposes were imported from Great Britain and South America. Textiles no doubt came in bulk from Russia, but Germany was working up a trade in haberdashery and Great Britain supplied a little cloth of fine quality to Baku. Great Britain had at one time a monopoly of the supply of china and glass, but in 1914 the supply came from Continental Europe.

The share of Great Britain in European trade with Caucasia was estimated in 1910 to be about 17 per cent., but in the import of certain classes of goods the competition of Germany was making itself more and more severely felt (see also above, p. 81).

(c) *Transit Trade*

Caucasia does a large and increasing transit trade between Europe on the one side and Persia and Russian

Central Asia on the other. In respect of trade with Persia it has largely supplanted Mesopotamia and Turkish Armenia, partly on account of the prohibition of the transit of goods from Europe to Persia through these countries, and partly on account of the superiority of the railway system. Baku is the chief centre of this trade, which is facilitated by the regular services between that port and Astara, Enzeli, and Bandar-i-Gaz. The total volume of trade which passed through Baku in 1912 was 5,338,837 tons, made up of exports from Persia, 194,249 tons, from Russian Central Asia, 583,774 tons; imports into Persia, 90,946 tons, into Russian Central Asia, 4,469,868 tons.

The chief articles exported from Persia in that year were rice, 68,135 tons; grain, 66,262 tons; cotton seed, 20,645 tons; wool and carpets, 6,516 tons; fruit, 5,914 tons; and timber, 4,056 tons. The export of raisins from Persia is a new and promising branch of trade.

The chief articles from Russian Central Asia were crude oil, 182,490 tons; timber, 122,963 tons; fish, 11,223 tons; drinking water, 98,310 tons; fruit, 5,859 tons; and cotton seed, 3,200 tons.

The chief articles imported by Persia were sugar, 49,796 tons; kerosene, 24,302 tons; flour, 9,692 tons; metals, 2,095 tons; and manufactured goods, 1,701 tons.

The chief articles imported by Russian Central Asia were petroleum products, 4,313,971 tons; rice, 35,779 tons; flour, 28,200 tons; metals, 15,000 tons; sugar, 8,232 tons; fruit, 7,966 tons; provisions, 6,872 tons; and tea, 6,624 tons.

The transit trade in tea had declined in comparison with 1910, when it amounted to about 18,000 tons (one-third from China and two-thirds from India).

These statistics from Baku only represent a part of the Russo-Persian transit trade, since considerable quantities of goods used to come by sea to Poti or Batum and were forwarded by rail through Tiflis and Julfa, a roundabout route, but the shortest available. The completion of the Julfa–Tabriz line in 1917 will

have greatly facilitated trade by this route. A direct line from Batum to Kars would, however, effect a still greater economy of cost and time.

A part of the Russian transit trade with Transcaspia and Persia passes through Petrovsk when the Volga is frozen. No statistics of this trade are available.

(D) FINANCE

(1) *Public Finance*

As a large portion of the Caucasus has only recently been incorporated into the Russian Empire, and parts of the country have been vacated by the former inhabitants owing to their dislike for Christian rule, the country has been treated more as a colony than as an integral portion of Russia. Details of revenue and expenditure are not easily available. It would, however, seem that vast sums have been spent in the past on settling the country, building military roads, &c., and that, owing to the rapid expansion of the oil industry and to fair success in some other mining ventures, together with sound agricultural development and the repute the country has gained as a tourist resort and for its medicinal springs, the revenue was gradually being adjusted to expenditure. The revenue is stated to have risen by 35 per cent. between 1906 and 1910.

Taxation in Russia as a whole was mainly indirect, only about 8 per cent. of the revenue being derived from direct taxes on land and trades and industries. Excise revenue furnished about 22 per cent., duties about 8 per cent., royalties (including the profit on the spirit monopoly) about 30 per cent., and profits from State undertakings (forests, railways, State factories, &c.) about 30 per cent. For the Caucasus considered separately, these proportions might differ in certain particulars. It is not possible to trace the incidence of expenditure in the Caucasus at all.

Local taxation is either urban or rural. In 1912 nine towns were entitled to raise revenue for urban

purposes, and in that year their aggregate revenue amounted to some £1,250,000 and their aggregate debt to £1,800,000. Baku had a revenue of £670,000 in 1912, Tiflis of £218,000, and Ekaterinodar of £147,000. The remaining towns had revenues of less than £50,000 each.

Rural taxation in Russia was undertaken by the *zemstvos*. Caucasia, however, had no *zemstvos*, and local matters were administered by official boards. The Province of Stavropol acquired a *zemstvo* in 1912, but no record of its activities is available.

(2) *Currency*

The paper money and coinage current in Caucasia is that of the Russian Empire, but certain silver coins of the old Georgian currency are still in circulation, namely, the *shaur* (worth 5 kopecks, or about 1d.), the *half abaz* (10 kopecks), the *abaz* (20 kopecks), and the *two abaz* (40 kopecks).

(3) *Banking*

The most important distinctively Caucasian bank is the *Banque de Caucase*, or *Banque de Commerce de Tiflis*, which has its head office at Tiflis and branches at Baku, Batum, Elisavetopol, Erivan, Grozni, Kars, Kutais, and Nukha. Smaller Caucasian banks are the *Tiflis Agrarian Bank* at Tiflis, the *Tifliser Kaufmannsbank* at Tiflis, and the *North Caucasian Commercial Bank* at Armavir.

The following Russian banks have branches in the Caucasus: the *Imperial State Bank*,[1] at Armavir, Baku, Batum, Ekaterinodar, Erivan, Stavropol, Tiflis, and Vladikavkaz; the *Banque Russo-asiatique* (of Petrograd), at Armavir, Baku, Batum, Yeisk, Ekaterinodar, Grozni, Novorossiisk, and Vladikavkaz; the *Banque de Commerce de l'Azoff-Don* (of Petrograd), at Armavir, Elisavetopol, Erivan, Yeisk, Grozni, Novorossiisk, Poti, Stavropol, Tiflis, and Vladikavkaz; the

[1] The functions of the Imperial State Bank are described in *Don and Volga Basins*, No. 53 of this series, p. 100.

Volga-Kama Commercial Bank (of Petrograd), at Armavir, Baku, Ekaterinodar, Grozni, and Tiflis, with sub-agencies at Elisavetopol, Erivan, Kutais, Maikop, and Novorossiisk; the *Russian Bank for Foreign Trade* (of Petrograd), at Armavir, Baku, Yeisk, Ekaterinodar, and Novorossiisk; the *Russian Commercial and Industrial Bank* (of Petrograd), at Armavir, Baku, Ekaterinodar, Novorossiisk, Petrovsk, and Stavropol; the *Banque de l'Union* (of Moscow), at Baku and Batum; and the *Banque Internationale de Commerce de Petrograd*, at Baku and Tiflis.

The *Peasants' Land Bank*, a State institution, advances money on the security of their crops to peasants desirous of acquiring land. Loans are made either to village communes, to associations of peasants, or to individuals; 2,297 such loans were made between 1883 and 1914—1,463 to individuals, 782 to associations of peasants, and 52 to communes.

Of late years there has been a great increase in the number of co-operative banks—including credit societies (open and mutual), joint-stock mortgage institutions, and mutual mortgage institutions—and a less marked increase in the smaller communal loan and savings banks. There were 95 mutual mortgage institutions in 1912. In 1914 there were 633 open credit associations, with a total membership of 308,952, and a total grant of loans to the value of £2,047,071; and 217 associations of mutual credit and savings, with a membership of 105,358, and a total grant of loans to the value of £1,296,706. Kuban has by far the greater proportion of both kinds of credit association. Of the smaller communal loan and savings banks there were 106 in 1914, of which 102 were in Stavropol.

(E) GENERAL REMARKS

Caucasia as a whole is handicapped by the length and severity of its winters and the mountainous character of the country. Up to 1914 little had been done to relieve these natural disabilities by the provision of

railways and roads, or of adequate accommodation at the ports. A further disadvantage lies in the lack of union among the population, accentuated of late by the increase of political power among the Armenians. The exodus of the Turks, who owned the prosperous tea and tobacco plantations, was an economic loss, though they may be replaced by the Armenians, Tatars, or Georgians.

The British consular report for 1913 described Caucasia as a poverty-stricken country, making only the slowest progress. This estimate seems harsh in view of the increasing exports from the three chief ports and the development of the large Russian oil trade. The oil-fields, however, are exploited by international capital, so that most of the profits derived from the trade leave the country. It should be noted, too, that in the new fields oil is found at greater depths than in the old, so that, unless American deep-drilling methods are introduced, production may cease to be profitable. The manganese industry has made great advances, but so far has yielded small profits only, on account of the cost of transport. The increased value of the cereal exports has chiefly benefited a few large landowners.

The fact remains that Caucasia contains great natural wealth, little exploited as yet. There are openings for development in the use of its forests and water-power; in the exploitation of minerals and mineral springs; in the cultivation of fruit, vines, tea, and, with the help of scientific irrigation, of cotton; and in the production of silk.

Novorossiisk has already shown a remarkable increase in prosperity, although, since its bombardment by the Turks, trade has temporarily deserted it. It was long since pointed out that, with improved harbour facilities and the increase of oil production, Batum had a fair chance of becoming a port of world-wide importance.

APPENDIX

TABLE I.—SHIPPING IN 1909 AND 1913

	1909.				1913.			
	Foreign trade.		*Coasting vessels.*		*Foreign trade.*		*Coasting vessels.*	
1. *Black Sea.*	*Number.*	*Tonnage.*	*Number.*	*Tonnage.*	*Number.*	*Tonnage.*	*Number.*	*Tonnage.*
Batum .	692	661,000	777	100,000	527	1,007,027	2,484	—
Poti . .	383	516,130	—	—	155 (steamers)	321,933	94 (sailing vessels)	4,790
Sukhum .	—	—	1,034	8,060	—	—	—	—
Novorossiisk	563	1,242,000	1,645	225,406	458	810,806	1,932 (steamers)	—
							331 (sailing vessels)	—
2. *Sea of Azov.*								
Temryuk .	36	123,340	168	10,256				
Akhtar Bay	—	—	340	16,130				
Yeisk .	—	—	913	5,677				
3. *Caspian Sea.*					*Tons loaded.*		*Tons discharged.*	
Baku .	646	83,726	6,870	4,800,000	5,400,000		664,200	
Derbent .	—	—	145	2,000				
Petrovsk .	14	2,630	1,284	212,936	640,000		233,754	
Lenkoran .	56	300	1,394	21,742				

TABLE II.—OUTPUT OF MINERAL OIL, 1910–16[1]

Oil-fields.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
	Metric tons.	*Metric tons.*	*Metric tons.*	*Metric tons.*	*Metric tons.*	*Metric tons.*	*Metric tons.*
Old Baku . . .	8,016,000	5,131,200	6,758,054	6,290,323	5,435,484	7,264,000	7,712,000
New Baku . . .	160,000	661,289	709,677	758,064	1,389,774		
Maikop . . .	16,000	128,000	145,161	96,774	—	128,000	48,000
Grozni . . .	1,184,000	1,200,000	1,048,389	1,129,032	1,593,549	1,408,000	1,632,000
Hand-dug wells . .	—	161,090	—	—	209,677	—	—
Total . . .	9,376,000	7,281,579	8,661,281	8,274,193	8,628,484	8,800,000	9,392,000

[1] The Maikop and other productions of 1914 and various other productions in 1912 and 1913 are classified under 'Other Sources', of which an unknown proportion is of Transcaspian origin, so that the totals for 1912, 1913, and 1914 are really higher than the figures here given.

AUTHORITIES

Historical

Baddeley, J. F. *The Russian Conquest of the Caucasus.* London, 1908.
Brosset, M. F. *Histoire de la Géorgie.* Petersburg, 1849.
Esadze, B. S. *Lêtopis' Gruzii.* Tiflis, 1913.
Khakanov, A. S. *Histoire de Géorgie.* Paris, 1900.
Kovalevski, P. I. *Zavoevanie Kavkaza Rossiey.* Petersburg, 1911.
Vermishev, K. A. *Materialy dlya Istorii gruzino-armyanskikh otnosheniy.* Petersburg, 1904.
Wardrop, J. O. *The Kingdom of Georgia.* London, 1888.

Economic

British Diplomatic and Consular Reports, Annual Series. Reports for the years 1905–14 on the Trade of Batoum.
Italian Consular Reports. Il Caucaso : Risorse, commerci ed emigrazione italiana. 1913.
Recueil des données statistiques et économiques sur l'industrie agricole en Russie et dans les pays étrangères. 1916.
Russian Year Book, 1914–17.
Statistical Information concerning the Mining Industry of Russia. Petersburg, 1910.
Dingelstedt, V. *Small Trades of the Caucasus* (Scottish Geographical Magazine, March 1892).
Drake, F. *The Manganese Ore Industry* (Colliery Guardian, July 8, 1898).
Engelbrecht, Th. H. *Landwirtschaftlicher Atlas des Russischen Reiches in Europa und Asien.* Berlin, 1916.
Henry, J. D. *Baku : an eventful history.* London, 1905.
Mavor, James. *Economic History of Russia.* London, 1914.
Pares, Bernard. *Russia and Reform.* London, 1907.
Raffalovich, Arthur (editor). *Russia : its Trade and Commerce.* London, 1918.
Redwood, Sir B., and A. W. Eastlake. *The Petroleum Technologist's Pocket-Book.* London, 1915.

THOMPSON, A. BEEBY. *The Oil Fields of Russia.* 2nd edition. London, 1908.
—— *Petroleum Mining and Oil Field Development.* London, 1910.
Financial News, January 1919.
Mining Journal, 1910–14.
Russian Review, 1912, 1913.
Times (Russian Supplements), 1911, 1913–17.

MAPS

Caucasia is covered by five sheets (Batum, K. 37 ; Tiflis, K. 38 ; Baku, K. 39 ; Rostov, L. 37 ; Praskoveya, L. 38) of the International Map (G.S.G.S. 2758) published by the War Office, on the scale of 1 : 1,000,000.

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