### **Annex**

Country: Georgia

Institute: National Environmental Agency (NEA)

Name: Khatuna Kokosadze

E-mail: kokosadze.k@gmail.com

# VERIFICATION OF THE SEECOF-23 SUMMER 2020 CLIMATE OUTLOOK FOR THE TERRITORY OF GEORGIA

#### 1. SEECOF-23 Climate outlook for the 2020 summer season:

**Temperature**: According to the SEECOF-23 probability tercile for the summer seasonal temperature for The Black See Coastal Zone was above normal (60 %), near norm (30 %) and below normal (10%). In the rest territory of the country temperature was above normal (50%), near norm (30 %) and below normal (20%).

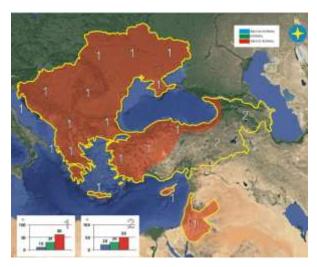


Figure 1. Graphical presentation of the 2020 summer temperature outlook

According to the SEECOF-23 outlook for the summer 2020 in Georgia, seasonal temperature was expected warmer all over the country, verification showed that the summer period in Georgia was warm except the several stations, where temperature was near the norm, so the outlook for a warm summer in the most territory of the country was correct.

**Precipitation**: probability tercile below normal (33%), near norm (34 %) and above normal (33%) all over Georgia.

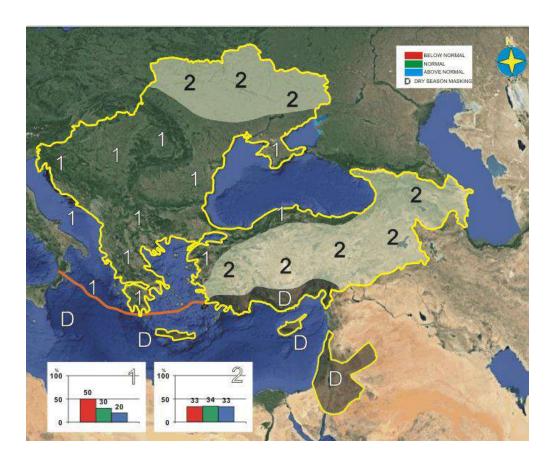


Figure 2. Graphical presentation of the 2020 summer precipitation outlook

The 2020 summer precipitation outlook for Georgia was no signal. The summer in Georgia was dry except the several stations where precipitation was near the nom.

## 2. Analysis of the 2020 summer season:

summer temperatures (reference period 1981-2010)

In summer mean seasonal temperature was above the normal by  $1-2^{\circ}$ C on the most territory of Georgia. In June and July air temperature was above the normal by  $1-3^{\circ}$ C. In August the air temperature was near the norm for west Georgia and  $1^{\circ}$ C colder and near the norm for east Georgia.

#### **SUMMER 2020**

#### **TEMPERATURE**

Name	Obs	JUNE	JULY	AUGUST	JJA_Obs	Dev	JUNE	JULY	AUGUST	JJA_Dev
Poti	Obs	23.8	26.1	24.4	24.7	Dev	2.6	2.3	0.2	1.7
Qobuleti	Obs	22.1	25.3	23.7	23.7	Dev	1.6	2.2	0.1	1.3
Zugdidi	Obs	24.4	26.2	24.4	25.0	Dev	3.0	2.5	0.2	1.9
Qutaisi	Obs	24.8	26.6	24.4	25.2	Dev	2.7	2.4	-0.4	1.6
Zestaphoni	Obs	24.1	26.9	23.3	24.7	Dev	1.8	2.3	-1.9	0.8
Sachkhere	Obs	23.6	25.9	23.0	24.2	Dev	3.3	2.7	-0.8	1.7
Ambrolauri	Obs	23.8	26.2	23.6	24.5	Dev	3.8	3.2	0.5	2.5
Mta-Sabueti	Obs	17.0	19.5	17.6	18.0	Dev	2.4	2.1	-0.3	1.4
Khashuri	Obs	22.2	25.4	22.6	23.4	Dev	3.4	3.6	0.7	2.6
Gori	Obs	22.5	25.5	22.4	23.5	Dev	3.0	2.9	-0.2	1.9
Tbilisi	Obs	25.1	27.7	24.8	25.9	Dev	2.8	2.2	-0.4	1.5
Bolnisi	Obs	24.3	25.9	23.4	24.5	Dev	3.0	1.2	-1.1	1.0
Telavi	Obs	24.1	26.0	22.8	24.3	Dev	2.9	1.8	-1.0	1.2
Dedoplistskaro	Obs	22.2	25.5	21.5	23.0	Dev	2.0	2.3	-1.5	1.0
Sagarejo	Obs	22.8	24.6	21.7	23.0	Dev	2.5	1.5	-1.2	0.9
Pasanauri	Obs	19.1	20.6	18.4	19.4	Dev	2.0	0.5	-1.4	0.4
Tianeti	Obs	18.6	21.7	21.5	20.6	Dev	1.5	1.7	1.9	1.7
Borjomi	Obs	20.5	23.7	21.1	21.8	Dev	2.0	2.0	-0.4	1.2
Akhaltsikhe	Obs	19.8	23.3	20.5	21.2	Dev	1.6	1.7	-1.1	0.8
Tsalka	Obs	16.1	18.4	15.5	16.7	Dev	2.0	1.5	-1.3	0.7
Akhalqalaqi	Obs	15.2	18.2	15.3	16.2	Dev	2.1	1.7	-1.4	0.8

# Semmer Precipitation (reference period 1981-2010)

For summer precipitation was below the norm and near the norm on the most territory of Georgia.

### SUMMER 2020 PRECIPITATION

Name	Obs	JUNE	JULY	AUGUST	JJA_Obs	Dev	JUNE	JULY	AUGUST	JJA_Dev
Poti	Obs	82	363	280.6	725.6	Dev	51%	169%	116%	118%
Qobuleti	Obs	95.2	226.7	174.3	496.2	Dev	60%	129%	74%	87%
Zugdidi	Obs	31.2	197.1	159.7	388.0	Dev	14%	110%	100%	70%
Qutaisi	Obs	28.1	125	112.4	265.5	Dev	26%	128%	116%	87%
Zestaphoni	Obs	18.5	121.2	54	193.7	Dev	19%	175%	81%	84%
Sachkhere	Obs	41	117	58.6	216.6	Dev	45%	148%	82%	89%
Ambrolauri	Obs	50.2	67.8	73	191.0	Dev	52%	80%	91%	73%
Mta-Sabueti	Obs	29.9	45.4	63.3	138.6	Dev	35%	71%	113%	68%
Khashuri	Obs	28.3	36.4	14.3	79.0	Dev	44%	82%	39%	54%
Gori	Obs	13.1	46.6	25.2	84.9	Dev	21%	104%	62%	58%
Tbilisi	Obs	57.9	23	29.8	110.7	Dev	74%	54%	65%	66%
Bolnisi	Obs	17.8	72.9	25.7	116.4	Dev	27%	222%	74%	87%
Telavi	Obs	29.1	86.5	90.3	205.9	Dev	28%	128%	119%	83%
Dedoplistskaro	Obs	19.2	48.8	82.1	150.1	Dev	22%	96%	192%	84%
Sagarejo	Obs	36.5	80.5	136.8	253.8	Dev	38%	116%	234%	113%
Pasanauri	Obs	39.4	40.8	27.2	107.4	Dev	31%	39%	26%	32%
Tianeti	Obs	77.8	59.8	28	165.6	Dev	84%	93%	37%	71%
Borjomi	Obs	65.4	27.2	60.8	153.4	Dev	82%	52%	144%	88%
Akhaltsikhe	Obs	50.8	40	63.7	154.5	Dev	65%	66%	128%	82%
Tsalka	Obs	45.6	73.1	35.4	154.1	Dev	38%	118%	54%	62%

# 3. Verification of the SEECOF-23 climate outlook for the 2020 summer season:

Country	Seasonal temper	rature (DJF)	Seasonal precipitation (DJF)			
	Observed	SEECOF-23	Observed	SEECOF-23		
		climate		climate		
		outlook		outlook		
		for		for		
		temperature		precipitation		
			Near the	No Signal		
Georgia	Above normal	Above normal	normal and			
			below the			
			normal for all			
			Georgia			