

**Caucasus
Environment Outlook
(CEO)
2002**



Published by New Media Tbilisi

ISBN-99928-803-2-5

GRID-Tbilisi

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PREFACE

This first Caucasus Environment Outlook (CEO) is a regional report and the result of work by experts from four countries: Armenia, Azerbaijan, Georgia and Russia. The GRID-Tbilisi office conducted overall project management, under the coordination and overall guidance of UNEP's Division of Early Warning and Assessment (DEWA) - Europe office, and Regional Office for Europe (ROE).

The major objectives of the CEO are to report on the status of the Caucasus environment, identify ongoing socio-economic "driving forces" and offer an integrated look at regional economic and environmental trends and appropriate policy measures for the last 30-year period, in order to analyse changes which have occurred since the Stockholm Conference (1972) to date. An important part of the report is the analysis of human vulnerability and insecurity vis-à-vis environment, conflicts, poverty and other factors, as well as the environmental outlook over the next 30-year period, based on three different development scenarios.

One reason for initiating this report is that the Caucasus region has not received much international attention, compared with other sub-regions in Central and Eastern Europe. One of the major challenges in resolving environmental problems of the Caucasus region in the trans-boundary context is the lack of a regional framework for environmental cooperation. Due to the fact that during the Soviet era, the Caucasus was part of a single country, it is now difficult to find bi- or multi-lateral agreements between the new states. Before the Soviet Union as a whole participated in international

legal agreements; now it is necessary to develop inter-state agreements. The perspective of joining the European Union is as yet too remote to act as a unifying factor.

Thus, it is hoped that this first CEO report will be only the beginning of a process which aims at improved and regular assessment and monitoring activities within the entire Caucasus region, as well as substantive measures being conceived and implemented for the overall region's environmental protection and rehabilitation.

A project team of Georgian experts and four national focal points from Armenia, Azerbaijan, Georgia and the Russian Federation was established and carried out the related work. These persons were as follows: Mariam Shotadze¹, MS, conducted overall project management. Doctor of Geographic Sciences, Professor Nikoloz Beruchashvili conducted the scientific edition of the report. These experts together with Dali Nickolaishvili and Valerie Melikidze, Candidates of Geographic Sciences, assistant professors drafted the report. Giorgi Zirakashvili (GRID-Tbilisi) collected baseline data and Manana Kurtubadze and Nino Megvinetukutsesi (GRID-Tbilisi) provided cartographic and graphic design². Vierra Savelyeva (GRID-Moscow, Russia), Mzia Gvilava (Ministry of Environment/GRID-Tbilisi, Georgia) and Tatyana Danielyan (Ministry of Nature Protection, Armenia) played national focal point roles. From Azerbaijan, Fuad Akhunzade (Nature Protection Society) participated as an independent expert.

¹Project manager during the initial phase of its implementation was Zurab Jincharadze, MS

²A set of geographic maps has been provided by David Beruchashvili

ACKNOWLEDGEMENTS AND DISCLAIMER

The authors of the work express their gratitude to all of the following: The Ministry of Environment of Georgia; The Ministry of Nature Protection of Armenia; State Forestry Department of Georgia; Statistical Services of Armenia, Azerbaijan, Georgia and Russia; The Ministry of Health of Georgia; The State Department of Hydro-meteorology of Georgia; Tbilisi State University; Head Geophysical Observatory (St. Petersburg); WWF offices in Moscow and Tbilisi; and other state agencies, private companies and NGOs for the information kindly presented by them.

Individual experts also provided helpful comments and contributions. Especially: late Gunter Beuchel (Delegation of European Commission in Georgia), Irina Bredneva (CIP, Moscow), Galina Gladkevich (Moscow State University), Teimuraz Gogishvili (State Statistical Department of Georgia), Matlab Hasanov (REC-Caucasus), David Kikodze (Dzelkva, Ltd, Georgia), Yuri Mazurov (Heritage Institute, Moscow), Tim Turner (Caspian Environmental Programme), etc.

The CEO report has been completed through financial assistance provided by UNEP (DEWA and ROE) and the Swiss Agency for Environment, Forests and Landscape (BUWAL).

Ron Witt, UNEP/DEWA/GRID-Geneva, conducted overall coordination of the project. Special thanks are offered to him for his editorial assistance, enabling the CEO team to prepare the final version of the report. Françoise Belmont of UNEP/ROE provided overall general support for and inputs to the project, and Merab Sharabidze of UNEP/ROE guiding political advice from the CEE and NIS countries' perspective.

Ultimately, this first edition of the CEO report and the material included therein are the responsibility of the CEO team under UNEP's supervision, and any factual errors or other mistakes should be reported to them.



INTRODUCTION

Location of the Caucasus. The Caucasus is a region where the oldest route connecting Europe to Asia is located.

For over 70 years the Caucasus region was part of the Soviet Union. After the break-up of the USSR, three independent countries were established within the South (or Trans-) Caucasus: Armenia, Azerbaijan and Georgia. The northern part of the Caucasus (the North Caucasus) has remained a part of the Russian Federation.

The Caucasus region is traditionally located between the Kuma-Manich depression to the

north and the Turkey-Iran border to the south. On the west, the Caucasus is bounded by the Black and Azov Seas, and on the east by the Caspian Sea. In this respect, the Caucasus area comprises 440,000 km sq., and the population in 2000 was approximately 30.6 million persons.

Boundaries of the Caucasus. The issue of the Caucasus frontiers is constantly under review and fervent debates are still held on this issue. The question of whether the Caucasus is located in Europe or Asia is one of interest to many, and the answer is closely connected to the problem of the border between Europe and Asia. There are several viewpoints on this issue (Beruchashvili, 1996):

1. The Europe-Asia border passes through the Kuma-Manich depression, which in geological times connected the Caspian and Black Seas. In this regard, the entire Caucasus belongs to Asia.

2. The Europe-Asia border passes along the border of South Caucasus countries with Iran and Turkey. In this case, the entire Caucasus is in Europe.

3. The borders pass along the Main Caucasian Range, which is the most important factor determining regional climate. In this respect, the northern part of the Caucasus is in Europe and the southern in Asia. However, from the geological viewpoint, the Caucasus is a single



Border Between Europe and Asia



Source: Beruchashvili N., 1998

entity, and overall geographically there is much in common between its southern and northern parts.

4. The rivers Rioni and Kura (Mtkvari) divide Europe and Asia. Herodotus, a Greek geographer of the 5th century B.C., shared this viewpoint. Nevertheless, neither the Rioni nor the Kura are difficult barriers to pass. Thus, the Colchian lowland (which is crossed by the river Rioni), Shida (Inner) Kartli plain and the Kura-Araks lowland (crossed by the river Kura) are a single entity from the geographical viewpoint.

5. The border between Europe and Asia passes along the landscape borders. In this case, it is connected with the landscapes typical to Europe and Asia and passes along the Javakheti-Armenian volcanic plateau with landscapes typical to Asia. At the same time, it penetrates the territory of Turkey and Iran, where humid sub-tropical arboreal landscapes are present in the Pontic Mountains and Elbrus. The authors of this report share this viewpoint, and hence single out the Caucasus as a separate eco-region among 200 eco-regions existing in the world. This opinion is considered to be the most substantiated from the geographical and environmental viewpoints.

However, both statistical and other information usually considers the Caucasus in terms of its political and administrative borders. In this respect, there are traditionally three South or Trans-Caucasus countries: Armenia, Azerbaijan and Georgia, and autonomous republics and krais (regions) of the North Caucasus:

Krasnodar and Stavropol krais, and the republics: Adigeya, Karachaevo-Cherkessia, Kabardino-Balkaria, North Ossetia, Ingushetia, Chechnya and Dagestan, which are the parts of the Russian Federation. Thus, in the CEO report the Caucasus is treated from this viewpoint.

There are changes recently ongoing in subdividing the Caucasus into the "North Caucasus" and "Trans-Caucasus". For specialists from Russia and other northern neighbouring countries who study Caucasus issues, Armenia, Azerbaijan and Georgia are located beyond the Greater Caucasus. That is why the region was traditionally called "Trans Caucasus". However, after the break-up of the Soviet Union, there appears to be another geographical understanding of the location of these three countries. That is why frequently scientific and political publications refer to the region as the "South Caucasus", involving the territory of three new independent states. The name "Trans-Caucasus" remains only in a physical-geographic sense, and its border is located at the Main Caucasus Range. In this respect, part of the Russian Federation (the Black Sea coastline) is in the Trans-Caucasus and the regions of North Georgia (upstream of the rivers Terek, Assa, Argun and Andian Koisy) and northeast Azerbaijan (the city of Kuba and adjacent to it Mukhtadir, Divichi, Siazan and Kusary regions) belong to the North Caucasus.

Administrative map of the Caucasus



The Russian Federation is now consists of seven federal districts (okrugs). Krays and republics of the North Caucasus are within the South Federal District. Rostov, Astrakhan and Volgograd regions (oblasts) and also the Republic of Kalmykia are included in it. If the entire South Federal District of the Russian Federation belonged to the Caucasus, its border would move sharply to the north and the territories added to the Caucasus would have nothing in common with the Caucasus itself, in a physical-geographical and environmental sense.

The North Caucasus involves two completely different parts. The first is represented mainly by pre-Caucasian plains, and in the majority of cases is settled by Russians. There are two krays (regions) of the Russian Federation: Krasnodar and Stavropol. It is one of the richest regions of the Russian Federation, and is characterised by relative political stability.

The other part is connected with the North Caucasus autonomies (Adigeya, Karachaevo-Cherkessia, Kabardino-Balkaria, North Ossetia, Ingushetia, Chechnya and Dagestan), mostly located in the mountains and foothills of the Greater Caucasus. They have diverse ecological and geographic conditions, with their population consisting of local ethnic groups and the regions differing in terms of political stability.

A "backbone" of the Caucasus is the Main Caucasus Range, which extends from the Taman peninsula on the Black Sea, to Absheron peninsula on the Caspian Sea. This range has a direction from north-west to south-east and is 1,500 km. in length. Its highest peak is located in the central part (Mt. Elbrus). Unlike the

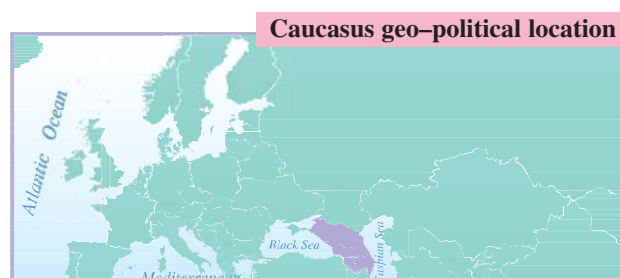
| Basic data on the Caucasus | | | |
|----------------------------|----------------------------------|------------|---|
| Country | Area thousand km ² | Population | Population density person/km ² |
| Total Caucasus | 440.4 | 30 583 | 69 |
| Armenia | 29.8 | 3 803 | 128 |
| Azerbaijan | 86.6 | 8 016 | 93 |
| Georgia | 69.7 | 5 445 | 78 |
| Russia (N. Caucasus) | Krays | 7 758 | 47 |
| | Autonomies | 5 561 | 61 |

Source: State Statistical Services of Armenia, Azerbaijan and Georgia, Year Books-2000.
State Committee for Statistics of the Russian Federation, "Regions of the Russian Federation", 2000

of its northern and southern slopes. Hence, the Greater Caucasus is often considered a single geographic region.

Geo-political Location and Ethnic

Composition. On the west, the Caucasus is washed by the Black and Azov Seas. The northern border passes the Kuma-Manich depression. Therefore, the North Caucasus joins the rest of the Russian Federation⁴. To the east, there is the Caspian Sea, on the eastern coast of which Kazakhstan and Turkmenistan are located and on the southern coast Iran. On the southern border of the Caucasus lie Iran and Turkey.



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