

## INTRODUCTION

*“With so much information online, it is exceptionally easy to simply dive in and drown.” — Alfred Glossbrenner*

**E**nergy and environmental problems undermine the potential for sustained economic development and contribute to political and economic instability in the strategically important region surrounding the Caspian and Black Seas. Many organizations supporting efforts to resolve problems in this region have found that consensus building—a prerequisite for action—is a difficult process. Reaching agreement on priorities for investment, technical collaboration, and policy incentives depends upon informed decision-making by governments and local stakeholders. And while vast quantities of data and numerous analyses and reports are more accessible than ever, wading through the many potential sources in search of timely and relevant data is a formidable task.

To facilitate more successful data searches and retrieval, this document provides annotated references to over 200 specific information sources, and over twenty primary search engines and data retrieval services, that provide relevant and timely information related to the environment, energy, and economic development around the Caspian and Black Seas. This document is an advance copy of the content that Oak Ridge National Laboratory (ORNL) plans to transfer to the web in HTML format to facilitate interactive search and retrieval of information using standard web-browser software.

### REPORT PREPARATION AND SCOPE

To compile this report, we reviewed more than 1000 documents and web sites during September 2000. The content, size, timeliness, and utility of the sites and reports varied greatly; and the number of sites offering information related to development issues in this region grows and changes constantly. Many sites, including Energy Information Administration pages, were well-maintained, updated regularly, and provided links to additional relevant resources. Other web sites, such as those sponsored by the World Bank and the Community Research and Development Information Service (CORDIS) offered powerful search engines capable of generating hundreds of links for a specific search request such as “Black Sea + environment.” The World Bank site also offered a tool that allowed users to extract specific data and organize it to build custom tables.

This report lists and annotates information resources; most were readily accessed on the Internet. Sites selected for annotation were considered to have useful information related to environmental, economic, and energy issues in selected countries of Eastern Europe and Central Asia. A few recent journal articles and books are included to provide an example of the information that can be found when using one of the many dedicated search engines linked to commercial and governmental databases (such as the energy databases sponsored by DOE or Cambridge Scientific Abstracts). Many search tools are free for public use. Others are fee-based but can generally be accessed through institutional or public library services.

Given the dynamic nature of data sets accessible via the Internet and the large number of possible sources, this report is not exhaustive in scope. Rather, it provides an organized set of summaries for selected information sources that are within the reach of most interested parties.

## **ORGANIZATION**

The information in this report is organized under two general categories: search engines and other information resources. The search engine section includes bibliographic and abstract search services as well as Internet home pages that offer large data sets and selection options related to nearly all the countries and topics of interest in the region. Over 20 search engine resources are annotated, falling into two subcategories:

- free, public web sites with powerful search capabilities for relevant links, data and reports; and
- subscription/fee-based (restricted) bibliographic search services for abstracts, journal articles, etc.

Other information resources are organized into chapters by geographic area:

- Countries
  - Armenia
  - Azerbaijan
  - Bulgaria
  - Georgia
  - Kazakhstan
  - Romania
  - Russia (Russian Federation)
  - Turkey
  - Ukraine
- Regions
  - Black Sea
  - Caspian Sea

## UNDERSTANDING THE FORMAT FOR CITATIONS

Each Internet annotation follows a standard format (non-Internet resources may differ somewhat):

**Title (generally as noted at the top of the URL web site)**

Location (usually, the URL or web site address)

Date posted or last updated.<sup>1</sup> Size, in number of pages.<sup>2</sup> Maps? Tables? Useful links?

A brief description of content found at this site. To increase the value of the annotation, an example of relevant content is often included. Any quotations in this section are taken directly from the referenced site.

*Key words:* Geographic area (country name or region); topic areas (any combination of energy, environment, GHG/GCC, economics, oil/natural gas, institutional development, international agreements); source (institutional site sponsor/author)

The information presented in each citation was accurate at the time of preparation: September 15–27, 2000. It reflects an effort to present a synopsis of the information encountered in the referenced sites at that time. Inclusion in this report does not represent endorsement by DOE or its contractors. Because of the rapidly changing nature of the Internet, it is inevitable that some sources will change in format, content, or location over time.

## IN CONCLUSION

How much information is available on the web? No one knows. Studies in late 1999 calculated that the World Wide Web held one billion distinct documents.<sup>3</sup> By June 2000, a single search engine reported that it had access to over a billion pages, and total size was estimated to be about 500 billion pages of information.<sup>4</sup> Internet traffic is doubling every 100 days.<sup>5</sup>

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<sup>1</sup> This information reflects the date (month and year) noted on the web page when we researched the site, September 2000. If no date was evident on the web page, but it pertained to other dated reports, we provide an estimated date (year only) based on the most recent such report.

<sup>2</sup> Since most material was viewed on-screen, an estimate is often provided here on the number of pages that would be generated if the content were to be printed. The actual number of pages will vary depending upon the fonts and formats of individual systems.

<sup>3</sup> Reka Albert, Hawoong Jeong, and Albert-Laszlo Barabasi, "Diameter of the World Wide Web," *Nature*, Sept. 9, 1999, pp. 130–31; Rita Tehan, *CRS Issues Brief for Congress: RL30435: Internet and E-Commerce Statistics: What They Mean and Where to Find Them on the Web*, Feb. 17, 2000.

<sup>4</sup> Danny Sullivan, "Invisible Web Gets Deeper," *The Search Engine Report*, online at <http://www.searchenginewatch.com/reports/sizes.html>, Aug. 2, 2000. Estimate based on Google's reported

Neurologists have compared the web to a giant brain; and research by a team of Notre Dame physicists led the Congressional Research Service to conclude, “Thus, the Web seems to have taken on an organic life of its own.”<sup>6</sup>

This document will allow users to identify sources for their specific needs more efficiently or to identify gaps in existing data that need more attention from the development community. The primary goal is to make it easier to access information that can contribute to improving the environmental health and social welfare around the Caspian and Black Seas. The authors also hope that it will enable users to dive into the ocean of Internet information without drowning.

If you have questions or comments about the report, please feel free to contact Kathy Gant (gantks@ornl.gov) or Keith Kline (klinekl@ornl.gov) at Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, Tennessee, 37831.

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size and Northern Light study on the “hidden web.”

<sup>5</sup> U.S. Department of Commerce, Secretariat for Electronic Commerce, “Building Out the Internet,” Chapter 2 of *Framework for Global Electronic Commerce*, online at <http://www.ecommerce.gov/chapter2.htm>, updated Apr. 16, 1998.

<sup>6</sup> Rita Tehan, *CRS Issues Brief for Congress: RL30435: Internet and E-Commerce Statistics: What They Mean and Where to Find Them on the Web*, Feb. 17, 2000.

## BIBLIOGRAPHIC DATABASES AND SEARCH ENGINES

*Numbers:*

*10,000,000 web pages accessed by largest search engines in 1995;*

*500,000,000 web pages accessed by largest search engines in 1999;*

*1,060,000,000 web pages accessed by largest search engine, June 2000.*

*1/500 of the estimated proportion of total information on the web is accessible by the largest search engines.*

*— Information derived from Danny Sullivan, *The Search Engine Report**

**S**everal web sites provided powerful search engines and effective links to many other sources of information. Numerous bibliographic databases from the U.S. Department of Energy (DOE) and commercial vendors provide citations to timely and relevant environmental and energy literature. Some sources provide only abstracts, while others offer links to the full-text publications. A selection of these search tools is described.

### FREE DATABASES AND SEARCH ENGINES

#### **ETDEWEB, Energy Technology Data Exchange World Energy Base**

<http://www.etde.org/etdeweb/>

1995 to present. 700,000 citations; 79,000 full-text publications; 3.5 million pages

The ETDEWEB includes information on the environmental impact of energy production and use, including climate change; energy R&D; energy policy; nuclear, coal, hydrocarbon and renewable energy technologies; and much more. Access in the United States is free through the U.S. Department of Energy's Office of Scientific and Technical Information (OSTI), but users must register. The site contains links to full-text publications and includes ample coverage from international sources.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russian Federation, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, GHG/GCC, economics, oil/natural gas, institutional development, international agreements; International Energy Agency (IEA)

### **Community Research & Development Information Service (CORDIS) Home Page**

<http://www.cordis.lu/en/home.html>

September 2000. 1 page. Search engine

A user-friendly, interactive search engine, CORDIS can quickly find information from sources associated with the European Community, which is sponsoring many energy and environmental projects in Eastern Europe and Central Asia. When the user searches from the home page (box at top right), results are organized by categories such as related-topic web pages, recent news articles, partner web sites, publications, and projects. A search on “Black Sea Environment” generated 100 results, listed by date and category, including 26 topic-based web pages, 31 projects, 8 publications, and web sites for 12 partner organizations. Contact information is also provided. News sites are updated daily.

*Key words:* Armenia, Azerbaijan, Black Sea, Bulgaria, Caspian Sea, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine; energy, environment, oil/natural gas, GHG/GCC, economics, international agreements, institutional development; European Union, CORDIS

### **ENRIN, Environment and Natural Resource Information Network, Home**

<http://www.grida.no/enrin/index.htm>

May 1999. Home page. Map, Links to more recent reports with data, graphs.

The home page for the Environment and Natural Resource Information Network in Central and Eastern Europe and Newly Independent States provides links to reports on 27 countries in the region, including 25 national State of Environment Reports, Urban Center Environmental Reports (Kiev, Tbilisi), national contacts, regional activities, publications and links to related sites including a similar regional web site presenting national biodiversity information from 22 Central and Eastern European countries/Newly Independent States.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; economics, environment, energy, GHG/GCC, oil/natural gas, international agreements, institutional development; United Nations Environment Programme

### **Information Bridge, U.S. Department of Energy**

<http://www.osti.gov/bridge>

1995 to present. 363,000 citations; 79,000 full-text publications

Reports from the U.S. Department of Energy (DOE), its contractors, other U.S. government agencies, professional societies, and the International Energy Agency are cited. The Information Bridge is a subset of the fee-based Energy Data Base, with the advantage of being free and

containing some full-text publications. There is also a version, accessible to DOE and its contractors (<http://www.osti.gov/doi/bridge>), that includes additional citations to journal literature.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russian Federation, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, GHG/GCC, economics, oil/natural gas, institutional development, international agreements; U.S. Department of Energy, U.S. government

### **Alexander's Gas and Oil Connections News and Trends**

<http://www.gasandoil.com/goc/news/welcome.html>

1996 to present, news updated regularly. 1 page (home page). Links

A region of the world can be selected from this entry page. This selection reveals a set of links to recent articles dealing with oil- and gas-related topics affecting the selected region. Choosing the "History" link at the top of the page leads to an archive of news coverage on the global gas, oil, and power industry. The user can search the entire site or selected portions of the site with an internal search engine at <http://www.gasandoil.com/goc/search/welcome.html>.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; oil/natural gas; Alexander's Gas and Oil Connections

### **International Energy Agency Statistics**

<http://www.iea.org/statist/index.htm>

June 2000, updated regularly. 3 pages (home page). Links to statistical data

This site describes the data collected by the Energy Statistics Division of the International Energy Agency for member countries, including the monthly energy survey, monthly price statistics, monthly natural gas survey, and monthly oil survey. Results are available in PDF and Excel 97 format. The search capability provided can locate more limited data for non-member countries. Links to other energy data are also available.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine; energy, oil/natural gas, economics; International Energy Agency

### **REESWeb: Russian and East European Studies Internet Resources**

<http://www.ucis.pitt.edu/reesweb/>

November 1998. 2 pages (search engine). Links

The REESWeb is a comprehensive index of electronic resources on the Balkans, the Baltic states, the Caucasus, Central Asia, Central Europe, Eastern Europe, the Russian Federation, and the former Soviet Union. A separate search engine is available, and resources are listed by discipline and type. Some links are more recent than the date on the search page.

*Key words:* Caspian Sea, Armenia, Azerbaijan, Bulgaria, Kazakhstan, Romania, Russia, Ukraine; economics; University of Pittsburgh

### **The Mandela Projects**

<http://www.american.edu/projects/mandala/TED/>

June 2000. 1 page (home page)

The Mandela Projects are a collection of cross-disciplinary efforts to examine the impact of globalization of peoples and people. Mandela serves as an umbrella organization for several related but different projects: the Trade Environment Database (TED), the Inventory of Conflict and Environments, Etown, and the Global Classroom. TED includes a collection of case studies, also published as an online journal

(<http://www.american.edu/projects/mandala/TED/class.all.htm>). The TED database can be searched by country at [http://147.9.202.41/ICE/FindCases\\_TED.HTML](http://147.9.202.41/ICE/FindCases_TED.HTML). Among the case studies found were titles such as “Russian Air Pollution,” “Illegal CFC Production in Russia,” “The Bosphorus and Central Asian Oil,” and “Sturgeon, Caviar, and Loss.”

*Key words:* Black Sea, Caspian Sea, Armenia, Azerbaijan, Bulgaria, Kazakhstan, Romania, Russia, Turkey, Ukraine; economics, environment; American University

### **Black Sea Regional Energy Centre (BSREC)**

<http://www.bsrec.bg/index.html>

2000. 2 pages (home page). Links

This site is the home page of the Black Sea Regional Energy Centre, supported by the Synergy Programme of the European Union. Member countries include Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Macedonia, Moldova, Romania, Russia, Turkey, and Ukraine. The site contains links to projects, energy reviews for most countries, news, and meetings. An internal search engine is found at <http://www.bsrec.bg/search/index.html>.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Romania, Russia, Turkey, Ukraine, Black Sea; energy, international agreements; Black Sea Regional Energy Centre

### **United Nations Sustainable Development National Information Web Site**

<http://www.un.org/esa/agenda21/natinfo/>

June 2000, updated regularly. 2 pages

This is the United Nations' "System-Wide Web Site on National Implementation of the Rio Commitments." Sustainable development information by country is organized by topic: social, economic, natural resource, and institutional. A full-text search of two databases—(1) economic, social, and related fields or (2) Economic and Social Council only—is available at <http://www.un.org/esa/search/>.

*Key words:* Armenia, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine; environment, energy, economics, institutional development, international agreements; United Nations

### **United Nations Framework Convention on Climate Change (UNFCCC) Country Web Site**

<http://www.unfccc.de/resource/country/index.html>

September 2000, updated regularly as information received from countries. Links

The United Nations' inventory of country profile information related the UNFCCC with a quick search function. Includes information such as if and/or when the country ratified the convention and the Kyoto Protocol and the country's point of contact. Contains links to national web sites on climate change and to HTML or PDF files of national communication papers submitted to the UN FCCC. Papers, when available, describe each country's environmental state in detail, including national policies, charts, maps, and tables on greenhouse gas emissions. No national papers are currently online for Turkey or Ukraine.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine; environment, GHG/GCC, energy, oil/natural gas; United Nations

### **The World Bank Group**

<http://www.worldbank.org/>

September 2000, updated annually. 1 page (home page). Links

This site contains links to the World Development Indicators database and additional links to comprehensive sites containing data organized by country, site maps, contacts, and data

partners. Search engine and specific data queries can be constructed. Access to maps and data is found at <http://www.worldbank.org/data/> . Country data provides three years of data indicators on the people, environment, economy, technology and infrastructure, and trade and finance by country (over 200) or country group (Europe and Central Asia or Middle Income). Individual definitions are available for each indicator. Supports custom data queries that build tables based on 54 variables (e.g., CO<sub>2</sub> emissions, energy use per capita, GNP, and high-technology exports) and six years of generated data. There is an internal search engine at <http://www.worldbank.org/search.htm> .

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine; environment, economics, energy; World Bank

### **World Energy Council—Energy Data Centre**

<http://www.worldenergy.org/wec-geis/edc/open.plx?file=default/default.htm>

2000. 1 page (query page to database)

The Energy Data Centre is a repository of descriptive and statistical data collected by the World Energy Council. Data are gathered primarily from the survey of energy resources and national energy data profiles. Energy efficiency indicators are also available for 29 countries. Long-term projections for global energy sector development up to the year 2050 (WEC/IIASA Scenarios) and an analysis of energy efficiency policies (Energy Efficiency Policies and Indicators report of 1998) are included. At this time, the database can only be searched by country, a number of additional aggregations and views are planned.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine; energy; World Energy Council

### **The World Factbook, Central Intelligence Agency (CIA)**

<http://www.cia.gov/cia/publications/factbook/index.html>

2000. 1 page (home page). Links

Data is organized by country. Users can choose a complete country listing and view data organized by chapters on geography, people, government, economy, communications, transportation, military, and transnational issues. Information can also be reviewed and compared by specific topic using the “field listing” link, with categories such as environmental treaties, environmental issues, pipelines, international disputes, and various electricity statistics. The CIA 2000 Maps and Publications link lists all unclassified maps available to the public for purchase.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, economics, oil/natural gas, institutional development, international agreements; Central Intelligence Agency, U.S. government

### **Energy Information Administration Country Analysis Briefs**

<http://www.eia.doe.gov/emeu/cabs/contents.html>

2000. 1 page (home page). Links

Main categories for data links include petroleum, natural gas, coal, nuclear, electricity, renewables, alternate fuels, international, environment, forecasts, and special regional studies, including Eastern Europe and Russia. The timeliness and level of detail for specific statistics can vary by country, but was often as recent as anything encountered on the web. Search capabilities by country and topic, and from within country pages. Many additional links are provided.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russian Federation, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, GHG/GCC, economics, oil/natural gas, institutional development, international agreements; Energy Information Administration, U.S. government

### **World Resources 1996-97**

<http://data.wri.org:1996/>

1997. 1 page (query page)

This page allows user to query the data set on which the *World Resources 1996–1997* report was based. Users can customize their queries of *World Resources 1996–1997* data tables by selecting variables and countries of interest; these are then displayed by the system in table format. A data query system for *World Resources 1998–1999* was not encountered online.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine; economics, environment, energy, GHG/GCC, oil/natural gas, international agreements; World Resources Institute

## **FEE-BASED AND COMMERCIAL DATABASES**

Many large commercial and U.S. government databases are available through subscription services for a fee. They can be accessed through academic institutions, libraries, or vendors such as Dialog, Datastar, and Cambridge Scientific Abstracts. These databases index journal

articles, books, reports, and conference proceedings, many of which will not be located through free Internet search engines. A sampling of fee-based databases is described here.

**The Energy Science and Technology Database (EDB), U.S. Department of Energy (fee)**

<http://www.osti.gov/products/eionline.html>

1974 to present. 3.9 million records. No full-text links

Accessed by subscription through vendors such as NTIS

(<http://www.ntis.gov/databases/engsci.htm>), the Dialog Corporation

(<http://www.dialogweb.com>), or Silverplatter (<http://www.silverplatter.com>).

Popularly referred to as the Energy Database, or EDB, this site claims through the site banner to be the “World’s Most Comprehensive Collection of Energy, Science, and Technology Information.” The database contains information from the U.S. Department of Energy, its contractors, other government agencies, professional societies, the International Energy Agency (IEA), and the International Atomic Energy Agency’s International Nuclear Information System (INIS) pertaining to basic and applied scientific and technical research literature. The database contains citations and abstracts published worldwide regarding nuclear, coal, and global climate change; but full-text links are not offered.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, GHG/GCC, economics, oil/natural gas, institutional development, international agreements; U.S. Department of Energy

**National Trade Data Bank (NTDB) and the International Trade Library, U.S. Department of Commerce (fee)**

<http://www.stat-usa.gov/>

Current economic and trade information, available by subscription from STAT-USA

“A one-stop source for export promotion and international market reports collected by more than 40 U.S. government agencies,” these two databases from the U.S. Department of Commerce are good sources for trade, economic, and social data. The NTDB provides access to country commercial guides, market research, and U.S. import/export statistics. The International Trade library is a comprehensive collection of over 40,000 documents related to international trade. All are full-text searchable, as well as key-word searchable by country or product.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, economics, oil/natural gas, institutional development, international agreements; U.S. Department of Commerce

### **Environmental Sciences & Pollution Management Collection, CSA (fee)**

<http://www.csa.com/>

1990 to the present. Over one million records.

The full collection is accessed through subscription with Cambridge Scientific Abstracts (CSA); portions also available from other vendors such as the Dialog Corporation (<http://www.dialogweb.com>) and Datastar (<http://www.datastarweb.com>).

The Environmental Sciences and Pollution Management collection indexes world literature covering all areas of air, land, water, and noise pollution as well as bacteriology, ecology, toxicology, risk assessment, environmental engineering, environmental biotechnology, waste management, and water resources. Environmental policy and regulations are given significant coverage, as are U.S. environmental impact statements. There are 14 separate databases including Ecology Abstracts, Pollution Abstracts, and Water Resources Abstracts. Coverage varies for each database, with about half covering the 1980s to the present and others covering about 1990 to present. Over a million bibliographic records; 90% include abstracts, but direct access to full-text is not offered.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, GHG/GCC, economics, oil/natural gas, institutional development, international agreements; Cambridge Scientific Abstracts

### **Aquatic Sciences and Fisheries Abstracts Series, Cambridge Scientific Abstracts (fee)**

<http://www.csa.com/>

1980 to the present. Over 700,000 records; about 3,700 added each month

Accessed through subscription from vendors such as Cambridge Scientific Abstracts or the Dialog Corporation (<http://www.dialogweb.com>).

This is a collection of five databases focusing on worldwide aquatic sciences literature: biological sciences and living resources, ocean technology, policy and non-living resources, aquatic pollution and environmental quality, aquaculture abstracts, and marine biotechnology abstracts. Coverage varies, with some covering literature back as far as 1978 and others beginning with the late 1980s or early 1990s.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, GHG/GCC, economics, oil/natural gas, institutional development, international agreements; Cambridge Scientific Abstracts

**GEOBASE, Dialogweb (fee)**

<http://www.dialogweb.com>

1980 to the present. 1 million records; 6,000 new records each month

Accessed by subscription with vendors, such as the Dialog Corporation or Elsevier

(<http://www.elsevier.com>)

GEOBASE provides bibliographic information and abstracts for human and physical geography, ecology, geology, oceanography, geomechanics, and development studies. The database offers current coverage of over 1,700 scientific and technical periodicals and archival coverage of several thousand additional titles. GEOBASE contains nearly a million records dated since 1980, with 72,000 records added annually. GEOBASE includes non-English and other less readily available publications. Over 2,000 books, monographs, conference proceedings, and reports are also included. A search of GEOBASE through Dialog, using the keywords “Black Sea” or “Caspian Sea,” produced 660 hits for 1990 through September 2000.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, GHG/GCC, economics, oil/natural gas, institutional development, international agreements; Dialog Corporation

**Science Citation Index Expanded, Institute for Scientific Information (fee)**

<http://www.isinet.com/isi/products/citation/sci>

1945 to the present. Over 18.5 million records; available through subscription from the Institute for Scientific Information (from 1945 to the present), or it can be accessed through online

vendors such as the Dialog Corporation (<http://www.dialogweb.com>), Datastar

(<http://www.datastarweb.com>), and Science and Technology Network (STN)

(<http://www.cas.org/>), from 1974 to the present

Science Citation Index includes an extensive set of records and abstracts from sources worldwide. For example, a search of the database using the keywords “Black Sea” and “Caspian Sea” for the years 1990 to September 2000 generated a list of approximately 1,700 articles.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, GHG/GCC, economics, oil/natural gas, black sea issues, institutional development, international agreements; Institute for Scientific Information

### **PASCAL, Institut de l'Information Scientifique et Technique (INIST) (fee)**

<http://www.dialogweb.com>

1973 to the present. Over 13 million records. Accessed by subscription through the Dialog Corporation and various European database vendors.

Produced by the Institut de l'Information Scientifique et Technique (INIST) of the French National Research Council (CNRS), PASCAL is a multidisciplinary index/abstract to the world's scientific and technical literature. Titles are in English and French, but most abstracts are in French. This database provides good coverage of French literature, but 63% of the publications covered are in English and 10% are Russian. A search of PASCAL through Dialog, using the keywords "Black Sea" or "Caspian Sea" produced 1,085 hits for the years 1990 to September 2000.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; energy, environment, GHG/GCC, economics, oil/natural gas, institutional development, international agreements; Dialog Corporation

### **Chemical Abstracts Selects--CAS (fee)**

<http://www.cas.org>

1974 to the present. Home page with links. Over 16 million document records; database access by paid subscription.

Chemical Abstracts Service and Registry home page, with links to several other database collections including the Science and Technology Network (STN) (<http://stnweb.cas.org/>). STN provides access to more than 200 databases of evaluated information in science and technology, with topics including energy, environment, government regulations, and petroleum. Its purpose is to meet the information needs of scientists, engineers, and researchers throughout the world.

*Key words:* Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Romania, Russia, Turkey, Ukraine, Black Sea, Caspian Sea; economics, environment, energy, GHG/GCC, oil/natural gas, international agreements; Chemical Abstracts Service