

Literature



References in Atlas Text

- Abdullah, S.H. & Chmyriov, V.M. (1977a). *Hydrogeological Map of Afghanistan. Scale 1:2,000,000*. Originally published as Annex No. 7 to Abdullah & Chmyriov (2008b).
- Abdullah, S.H. & Chmyriov, V.M. (1977b). *Map of Mineral Waters of Afghanistan. Scale 1:2,000,000*. Originally published as Annex No. 8 to Abdullah & Chmyriov (2008b).
- Abdullah, S.H. & Chmyriov, V.M. (1977c). *Map of Mineral and Fresh Water Springs of Afghanistan. Scale 1:4,000,000* Originally published as Annex No. 9 to Abdullah & Chmyriov (2008b).
- Abdullah, S.H. & Chmyriov, V.M. (eds.) (2008a). *Geology and Mineral Resources of Afghanistan*. Volume 1: Geology. Ministry of Mines and Industries of the Democratic Republic of Afghanistan / Afghanistan Geological Survey. British Geological Survey Occasional Publication No.15.
- Abdullah, S.H. & Chmyriov, V.M. (eds.) (2008b). *Geology and Mineral Resources of Afghanistan*. Volume 2: Mineral Resources of Afghanistan. Ministry of Mines and Industries of the Democratic Republic of Afghanistan / Afghanistan Geological Survey. British Geological Survey Occasional Publication No.15.
- Ahmad, M. & Wasiq, M. (2004). *Water Resource Development in Northern Afghanistan and its Implications for Amu Darya Basin*. World Bank Working Paper No. 36.
- Aladin, N., Létolle, R., Micklin, P. & Plotnikov, I. (2005). Uzboy and the Aral regressions: an hydrological approach. Preprint, *International Conference on Rapid Sea Level Change: A Caspian Perspective*, 2nd-9th May 2005 Rasht, Islamic Republic of Iran. 20 pp.
- Alcalá, F. J. & Custodio, E. (2004). Use of the Cl/Br ratio as a tracer to identify the origin of salinity in some coastal aquifers of Spain. In Araguás, L., Custodio, E. & Manzano, M. (eds.) "Groundwater and saline intrusion", *Proceedings of the 18th Salt Water Intrusion Meeting, Cartagena, Spain, 2004*, 481-497. IGME.
- Banks, D., Hall, G.M., Reimann, C. & Siewers, U. (1999). Distribution of rare earth elements in crystalline bedrock groundwaters: Oslo and Bergen regions, Norway. *Applied Geochemistry*, 14, 27-39.
- Banks, D. (2001). *Guidelines for Sustainable Use of Groundwater in Afghanistan*. Report for Norwegian Church Aid. <http://www.holymoor.co.uk/Poldok.PDF>.
- Banks, D. & Soldal, O. (2002). Towards a policy for sustainable use of groundwater by non-governmental organisations in Afghanistan. *Hydrogeology Journal* **10**, 377-392.
- Banks, D., Karnachuk, O.V., Parnachev, V.P., Holden, W. & Frengstad, B. (2002). Rural pit latrines as a source of groundwater contamination; examples from Siberia and Kosova. *Journal of the Chartered Institution of Water and Environmental Management* 16, 147-152.
- Banks, D., Parnachev, V.P., Frengstad, B., Holden, W., Karnachuk, O.V. & Vedernikov A.A. (2004). The evolution of alkaline, saline ground- and surface waters in the southern Siberian steppes. *Applied Geochemistry* **19**, 1905-1926. doi: 10.1016/j.apgeochem.2004.05.009

- Banks, D. (2009). An introduction to “thermogeology” and the exploitation of ground source heat. *Quarterly Journal of Engineering Geology and Hydrogeology* **42**, 283-293.
- Banks, D. (2012). *An Introduction to Thermogeology: Ground Source Heating and Cooling. 2nd Edition*. John Wiley & Sons, Chichester, 526 pp. ISBN: 978-0-470-67034-7.
- Berg, L.S. (1950). *Natural Regions of the USSR*. Translated from the Russian by O.A. Titelbaum and edited by J.A. Morrison and C. C. Nikiforoff, MacMillan, New York.
- BGS (2014). *Geology of Afghanistan*. <http://www.bgs.ac.uk/afghanminerals/geology.htm>. Accessed February 2014.
- Boomer, I., Aladin, N., Plotnikov, I. & Whatley, R. (2000). The palaeolimnology of the Aral Sea: a review. *Quaternary Science Reviews* **19**, 1259-1278.
- Boomer, I., Wünnemann, B., Mackay, A.W., Austin, P., Sorrel, P., Reinhardt, C., Keyser, D., Guichard, F., & Fontugne, M. (2009). Advances in understanding the late Holocene history of the Aral Sea region. *Quaternary International* **194**, 79–90.
- Boroffka, N.G.O. (2010). Archaeology and its relevance to climate and water level changes: a review. In Kostianoy, A.G. & Kosarev, A.N. (eds.): “The Aral Sea Environment: The Handbook of Environmental Chemistry”, 283-303. Springer - Verlag Berlin Heidelberg. doi: 10.1007/698_2009_1.
- Bratash, V.I., Yegupov, S.V., Pechnikov, V.V. & Shelomentsev, A.I. [Браташ В.И., Езупов С.В., Печников В.В., Шеломенцев А.И.] (1970). *Geology and Oil/Gas Potential of the North of Afghanistan* [Геология и нефтегазоносность севера Афганистана - in Russian]. Nedra, Moscow, 288 pp.
- Breckle, S.W. & Geldyeva, G.V. (2012). Dynamics of the Aral Sea in geological and historical times. In Breckle S.W., Wucherer, W., Dimeyeva, L.A. & Ogar, N.P. (eds.): “Aralkum - a Man-Made Desert: The Desiccated Floor of the Aral Sea (Central Asia)”, *Ecological Studies* **218**, 13-35. Springer. doi: 10.1007/978-3-642-21117-1_2.
- Brookfield, M.E. & Hashmat, A. (2001). The geology and petroleum potential of the North Afghan platform and adjacent areas (northern Afghanistan, with parts of southern Turkmenistan, Uzbekistan and Tajikistan). *Earth-Science Reviews* **55**, 41–71.
- Byron, R. (1937). *The Road to Oxiana*. Macmillan.
- Carpenter, S.J. & Lohmann, K.C. (1992). Sr /Mg ratios of modern marine calcite: empirical indicators of ocean chemistry and precipitation rate. *Geochimica et Cosmochimica Acta* **56**, 1837-1849.
- China Geological Survey (2012). *Groundwater Serial Maps of Asia: Hydrogeological Map, Groundwater Resources Map, Geothermal Map - Explanation*. Sinomaps Press, ISBN 978-7-5031-7398-1.
- Clark, I.D. & Fritz, P. (1997). *Environmental Isotopes in Hydrogeology*. CRC Press, 352 pp. ISBN: 9781566702492.
- CSO (2013). *Estimated Population of Afghanistan 2012-13. Settled Population of Faryab province by Civil Division, Urban, Rural and Sex-2012-13*. Islamic Republic of Afghanistan, Central Statistics Organization. [http://cso.gov.af/Content/files/Faryab\(1\).pdf](http://cso.gov.af/Content/files/Faryab(1).pdf)
- DACAAR (2011). *Update on “National Groundwater Monitoring Wells Network activities in Afghanistan”. From July 2007 to December 2010*. DACAAR Report, Kabul.
- Davis, S.N., Whittemore, D.O. & Fabryka-Martin J. (1998). Uses of chloride/bromide ratios in studies of potable water. *Ground Water* **36**, 338-350.

- Davis, S.N., Fabryka-Martin, J.T. & Wolfsberg, L.E. (2008). Variations of bromide in potable ground water in the United States. *Ground Water* 42, 902-909.
- Dèzes, P. (1999). *Tectonic and metamorphic evolution of the Central Himalayan Domain in Southeast Zaskar (Kashmir, India)*. PhD thesis; Institut de Mineralogie et Petrographie, Université de Lausanne.
- Dickson, A.G. & Goyet, C. (eds.) (1994). *Handbook of methods for the analysis of the various parameters of the carbon dioxide system in sea water; version 2*. U.S. Dept. of Energy, ORNL/CDIAC-74.
- Dronov, V.I. (2008a). Stratigraphy. Chapter 4 in Abdullah & Chmyriov (2008). 31-233.
- Dronov, V.I. (2008b). The main stages of the geological history of the Afghan Territory. Chapter 7 in Abdullah & Chmyriov (2008). 394-428.
- Dronov, V.I. & V.M. Chmyriov, V.M. (2008). Structure. Chapter 6 in Abdullah & Chmyriov (2008). 308-393.
- Encyclopaedia Iranica (1988). *Band-e Torkestan*.
<http://www.iranicaonline.org/articles/band-e-torkestan>.
- Esenov, P.E. (2014). Groundwaters and salinization of soils in Turkmenistan. In: Zonn, I.S. & Kostianoy, A.G. (eds), "The Turkmen Lake Altyn Asyr and Water Resources in Turkmenistan". *Handbook of Environmental Chemistry* 28, 141-150. doi: 10.1007/698_2012_215.
- Fan, Y., & van den Dool, H. (2008). A global monthly land surface air temperature analysis for 1948-present, J. *Geophys. Res.* 113, D01103, doi:10.1029/2007JD008470.
- Favre, R. & Kamal, G.M. (2004) *Watershed Atlas of Afghanistan. 1st Edition: Working Document for Planners*. Ministry of Irrigation, Water Resources and Environment, FAO, SDC, AIMS and AREU.
- Frengstad, B.S. & Banks, D. (2014). Uranium distribution in groundwater from fractured crystalline aquifers in Norway. In: Sharp, J.M. (ed.) "Fractured Rock Hydrogeology", International Association of Hydrogeologists Selected Papers 20: 257-276. CRC Press/ Taylor & Francis, London.
- Fyedorovich, B.A. (1978). Entry for *Karakum [Каракумы]* in the Great Soviet Encyclopaedia (1978).
- Gapparov B.K., Beglov I.F., Nazariy A.M. & Usmanova O.K. (2011). Water Quality in the Amudarya and Syrdarya River Basins: Analytical Report. Scientific-Information Center Interstate Commission for Water Coordination in Central Asia (SIC ICWC) / United Nations Economic Commission for Europe (UNECE) / Central Asian Regional Environmental Center (CAREC). Tashkent, 2011. http://www.cawater-info.net/water_quality_in_ca/files/analytic_report_en.pdf.
- Glantz, M.H. (1999). *Creeping Environmental Problems and Sustainable Development in the Aral Sea Basin*. Cambridge University Press. ISBN: 9781139429412.
- Gotgilf, A.V., Atanasyeva, V.N. & Yusupov, I. (1969). Geothermal characteristic of Mesozoic-Cenozoic rocks of southwestern Tajikistan. In: Problemy neftegazenosnosti Tadzhikistana, vyp. 1, Dushanbe, Irfon, p. 143-145.
- Great Soviet Encyclopedia (1978). *The Great Soviet Encyclopedia [Большая советская энциклопедия]*, (1969-1978). Found in Russian at <http://slovari.yandex.ru> and in English at <http://encyclopedia2.thefreedictionary.com/>.

- Harris, D.R. (2010). Origins of agriculture in Western Central Asia: An environmental-archaeological study. University of Pennsylvania Press, 304 pp.
- Hassan Saffi, M. (2010a). *Integrated Groundwater Study in Astana Valley, Shirin Tagab District of Faryab Province, Afghanistan*. DACAAR Report, Kabul. June 2010.
- Hassan Saffi, M. (2010b). *Integrated Groundwater Study in Jalaier Valley, Shirin Tagab District of Faryab Province, Afghanistan*. DACAAR Report, Kabul. June 2010.
- Hiscock, K.M. & Bense, V.F. (2014). *Hydrogeology: Principles and Practice (2nd edition)*. Wiley / Blackwell.
- Ibrekk, H.A., Stoveland, S. & Ghani, S. (2006). *Analysis of the Water Situation in Faryab Province, Afghanistan: Water Resources, Drinking Water, Sanitation and Irrigation*. Royal Norwegian Embassy / NORAD / NORPLAN, Kabul, October 2006.
- INTAS (2006). The rehabilitation of the ecosystem and bioproductivity of the Aral Sea under conditions of water scarcity. INTAS Project – 0511 REBASOWS; Final report. International Association for the promotion of co-operation with scientists from the New Independent States of the former Soviet Union (INTAS), 265 pp. https://iwhw.boku.ac.at/onlinepublikationen/nachtnebel/EU_INTAS_0511_Rebasows/Files/Final_report_EU_Intas0511_Aral_Sea.pdf.
- Iranica Online (2014). *Band-e Torkestan*. <http://www.iranicaonline.org/articles/band-e-torkestan>, accessed February 2014.
- Jones, B.F., Rettig, S.L. & Eugster, H.P. (1967). Silica in alkaline brines. *Science* 158(3806), 1310-1314.
- Kharin, N.G. (2002). *Vegetation degradation in Central Asia under the impact of human activities*. Kluwer, 185 pp.
- Klett, T.R., Ulmishek, G.F., Wandrey, C.J. Agena, W.F. (2006). Assessment of undiscovered technically recoverable conventional petroleum resources of Northern Afghanistan. *U.S. Geological Survey Open-File Report 2006-1253*.
- Kreibich, H. & Thieken, A. H. (2008): Assessment of damage caused by high groundwater inundation. *Water Resources Research (AGU)* **44(9)**, W09409. doi: 10.1029/2007WR006621.
- Krizhanovskii, V.A. (Крыжановский, В.А.) (ed.) (1972). Гидрогеология СССР: том 38: Туркменская ССР. Институт Геологии Совета Министров Туркменской ССР. Издат. Недра, Москва. [*Hydrogeology of the USSR. Vol. 38. Turkmenistan. Nedra, Moscow - in Russian*]. 565 pp.
- Krylov, N.A. - ed. (1980). *Neftegazonosnost bolshikh glubin [Petroleum potential at great depths - in Russian]*. Nauka, Moscow, 142 pp.
- Lee, J.L. (1987). The history of Maimana in Northwestern Afghanistan 1731-1893. *Iran*, **25**, pp. 107-124.
- Létolle, R., Micklin, P., Aladin, N. & Plotnikov, I. (2007). Uzboy and the Aral regressions: A hydrological approach. *Quaternary International* **173-174**, 125-136.
- Lewis, A.J., Komninou, A., Yardley, B.W.D. & Palmer, M.R. (1998). Rare earth element speciation in geothermal fluids from Yellowstone National Park, Wyoming, USA. *Geochimica et Cosmochimica Acta* **62(4)**, 657-663.
- Lyberis, N. & Mering, C. (2000). Evolution of the hydrographic network of the Karakum desert and environmental implications for the Aral Sea. Paper SP-461 in *Proc. ERS-Envisat Symposium, "Looking down to Earth in the New Millennium"*, 16th-20th October 2000, Göteborg, Sweden.

- Marinova, N.A. [Маринова, Н.А.] (ed.) (1974) Гидрогеология Азии (*Hydrogeology of Asia*). Nedra, 576 pp.
- McKerrow, B. (2008). A full description of the mountain ranges of Afghanistan. Posted on the *Mountains of our Mind* blogspot on 15th November 2008 at <http://mountainsofourmind.blogspot.co.uk/2008/11/full-description-of-mountain-ranges-of.html>. Last accessed July 2014.
- McKinney, K.C. & Sawyer, D.A. (2005). Geologic map of quadrangle 3564, Chahriaq (Joand) (405) and Gurziwan (406) quadrangles, Afghanistan. Afghan Geological Survey in cooperation with the United States Geological Survey. *USGS Open-File Report 2005-1099-A, AGS Open-File Report (405/406) 2005-1099-A*.
- McKinney, K.C. & Lidke, D.J. (2005). Geologic map of quadrangles 3560, 3562, and 3662, Sir Band (402), Khawja-Jir (403), Bala-Murghab (404), and Darah-i-Shor-i-Karamandi (122) quadrangles, Afghanistan. Afghan Geological Survey in cooperation with the United States Geological Survey. *USGS Open-File Report 2005-1098-A, AGS Open-File Report (402/403/404/122) 2005-1098-A*.
- Mishkin, L.P. [Мышкин Л.П.] (1968). Схематическая карта гидроизогипсы минерализации подземных вод четвертичных отложений центральной части Северного Афганистана. Масштаб 1:500,000 (*Schematic map of hydroisohypses of groundwater mineralization in the Quaternary deposits of the central part of northern Afghanistan. Scale 1:500,000*). Reproduced in black and white as Figure 16 in Marinova (1974).
- Missteart, B., Banks, D. & Clark, L. (2006). *Water Wells and Boreholes*. Wiley, Chichester, 514 pp. ISBN/ISSN: 978-0-470-84989-7
- MRRD (2007). *Faryab PDP Provincial Profile*. Ministry of Rural Rehabilitation and Development, Kabul.
- MUMTAZ (2007). *Design and implementation of Andkhoy city water supply pumping unit from the Amu Darya River*. Mumtaz Corporation Report MEW/530, 1386/2/20, dated 10th May 2007.
- Nable, R.O., Bañuelos, G.S. & Paull, J.G. (1997). Boron toxicity. *Plant and Soil* **193**, 181–198. doi: 10.1023/A:1004272227886
- NORPLAN (2014). *A Methodology for Provincial Hydrogeological Mapping in Afghanistan. Part 1: Methodology, Data Sources and Processing; Part 2: Field Survey Methodology Statements (Faryab)*. 2 volumes. Unpublished reports by Asplan VIAK AS, trading as NORPLAN. Available at www.norplan.af.
- Olbrycht, J.M. (2010). Some remarks on the rivers of Central Asia in antiquity. In Jackson, T.N., Konovalova, I.G. & Tsetschladze, G.R. (eds.) *"Gaudeamus Igitur - Studies to Honour the 60th Birthday of A.V. Podossinov"*, Russian Academy of Sciences - Institute of World History, 302-309. Moscow.
- Olson, S.A., and Williams-Sether, T. (2010). Streamflow characteristics at streamgages in northern Afghanistan and selected locations. U.S. Geological Survey Data Series 529, 512 pp. <http://pubs.usgs.gov/ds/529/>.
- Orris, G.J. & Bliss, J.D. (2002). Mines and mineral occurrences of Afghanistan. USGS Open File Report 02-110.
- Ovodov, N.E. & Pechernikov, V.V. (1987). Formation of gas fields in basins of the same genetic type but of different age. In: Trofimuk, A.A., Nesterov, I.I. & Zhabrev, I.P. (eds.) *"Regularities in distribution of hydrocarbon gases and associated components"* [*Zakonomernosti razmeshcheniya uglevodorodnykh gazov i soputstvuyushchikh im komponentov*], Nauka, Moscow, 56–61.

- Pang, Z., Kong, Y., Froehlich, K., Huang, T., Yuan, L., Li, Z. and Wang, F. (2011). Processes affecting isotopes in precipitation of an arid region. *Tellus B* **63(3)**, 352-359. doi: 10.1111/j.1600-0889.2011.00532.x
- Parkhurst, D.L. (1995). Users guide to PHREEQC - a computer program for speciation, reaction-path, advective-transport, and inverse geochemical calculations. *U.S. Geological Survey Water Resources Investigation Report* 95-4227.
- Parnachev, V.P., Banks, D., Berezovsky, A.Y. & Garbe-Schönberg, D. (1999). Hydrochemical evolution of Na-SO₄-Cl groundwaters in a cold, semi-arid region of southern Siberia. *Hydrogeology Journal* 7, 546-560. doi: 10.1007/s100400050228.
- Plummer, L.N., Parkhurst, D.L., Fleming, G.W. & Dunkle, S.A. (1988). A computer program incorporating Pitzer's equations for calculation of geochemical reactions in brines. *U.S. Geological Survey Water Resources Investigation Report* 88-4153.
- Pravilova, E. (2009). River of empire: geopolitics, irrigation, and the Amu Darya in the late XIXth Century. *Cahiers d'Asie Centrale* **17/18**, 255-287.
- Qureshi, A.S. (2002). *Water Resources Management in Afghanistan: The Issues and Options*. International Water Management Institute, Working Paper 49, Pakistan Country Series No. 14.
- Radojicic, S. (1978): Summary report on deep tube wells constructed by Water and Soil Survey Dept., Ministry of Water and Power, 1973-78.
- Railsback, B.L. (2006). *Some Fundamentals of Mineralogy and Geochemistry*. Ebook available at <http://www.gly.uga.edu/railsback/FundamentalsIndex.html>.
- Rawlinson, H.C. (1879). The Road to Merv. *Proceedings of the Royal Geographical Society and Monthly Record of Geography - New Monthly Series* **1(3)**, 161-191.
- Saba, D.S., Najaf, M.E., Musazai, A.M. & Taraki, S.A. (2004). *Geothermal energy in Afghanistan: Prospects and potential*. Prepared for the Center on International Cooperation, New York University (USA) and the Afghanistan Center for Policy and Development Studies (Kabul). February 2004, 38 pp.
- SAHRA (2014). *Oxygen isotopes*. Sustainability of semi-arid hydrology and riparian areas (SAHRA) website. <http://web.sahra.arizona.edu/programs/isotopes/oxygen.html>. Accessed May 2014.
- Schneider, U., Becker, A., Finger, P., Meyer-Christoffer, A., Rudolf, B. & Ziese, M. (2011). GPCC Full Data Reanalysis Version 6.0 at 0.5°: Monthly Land-Surface Precipitation from Rain-Gauges built on GTS-based and Historic Data. DOI: 10.5676/DWD_GPCC/FD_M_V6_050.
- Shobair, S.S. & Alim, A.K. (2004). *The effects of calamities on water resources and consumption in Afghanistan*. Food and Agriculture Organization of the United Nations (FAO).
- Smith, R.C., Pillai, K.C., Chow, T.J. & Folsom TR. (1965). Determination of rubidium in seawater. *Limnology and Oceanography* **10(2)**, 226-232. doi: 10.4319/lo.1965.10.2.0226.
- Smoydzin, L. & von Glasow, R. (2009). Modelling chemistry over the Dead Sea: bromine and ozone chemistry. *Atmospheric Chemistry and Physics* **9(14)**, 5057-5072.
- SPHERE (2000). *Humanitarian Charter and Minimum Standards in Disaster Response (1st edition)*. The SPHERE Project, Geneva / Oxfam Publishing, Oxford. 330 pp.

- SPHERE (2011). *Humanitarian Charter and Minimum Standards in Humanitarian Response (3rd edition)*. The SPHERE Project, Practical Action Publishing, Rugby. 393 pp.
- Steinshouer, D.W., Klett, T.R., Umlishek, G.F., Wandrey, C.J., Wahl, R.R., Hill, R.J., Pribil, M., Pawlewicz, M.J., King, J.D., Agena, W.F., Taylor, D.J., Amirzada, A., Selab, A.M., Mutteh, A.S., Haidari, G.N. & Wardak, M.G. (2006). Petroleum Resource Potential GIS of Northern Afghanistan. *U.S. Geological Survey Open-File Report OFR-2006-1179*. <http://pubs.usgs.gov/of/2006/1179>.
- Struckmeier, W.F. & Margat, J. (1995). Hydrogeological maps: a guide and standard legend. *International Contributions to Groundwater*, Vol. 17, International Association of Hydrogeologists, Heise, Hannover. Available at http://www.bgr.bund.de/EN/Themen/Wasser/Projekte/laufend/Beratung/Ihme1500/standard_legend_hydro_maps.pdf?__blob=publicationFile&v=1 and at <http://www.iah.org/downloads/pubfiles/IAHbook ICH17.zip>.
- Tanaka, M., Takahashi, K. & Sahoo, Y.V. (2004). Speciation of dissolved silicates in natural waters containing alkaline and alkaline-earth ions. A case study--waters from arid lands (North West China). *Analytical and Bioanalytical Chemistry* **378(3)**, 789-797.
- Tanaka, M. & Takahashi, K. (2007). The chemical behavior of silica in water in saline area; comparison for region and evaporation process. *Spectrochim Acta Part A Molecular and Biomolecular Spectroscopy* **68(1)**, 21-28.
- Tarn, W.W. (1901). Patrocles and the Oxo-Caspian trade route. *Journal of Hellenic Studies* **21**, 10-29.
- Theis, C.V. (1935). The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using ground-water storage. *Transactions of the American Geophysical Union (Reports and Papers – Hydrology)* **16**, 519-524.
- Thomas, V. & Ahmad, M. (2009). *A Historical Perspective on the Mirab System: A Case Study of the Jangharoq Canal, Baghlan*. Afghanistan Research and Evaluation Unit / Aga Khan Foundation. March 2009. 66 pp. Available from <http://www.areu.org.af/Uploads/EditionPdfs/908E-The%20Mirab%20System-CS-web.pdf>.
- Ulmishek, G.F. (2004). *Petroleum Geology and Resources of the Amu-Darya Basin, Turkmenistan, Uzbekistan, Afghanistan, and Iran*. U.S. Geological Survey Bulletin 2201-H.
- USEPA (2009). *National Primary Drinking Water Regulations*. United States Environmental Protection Agency, document EPA 816-F-09-004, May 2009. Available at <http://water.epa.gov/drink/contaminants/upload/mcl-2.pdf>, last accessed January 2014.
- Vámbéry, A. (1865). *Reise in Mittelasien von Teheran durch die Turkmanische Wüste an der Ostküste des Kaspischen Meeres nach Chiwa, Bochara und Samarkand ausgeführt im Jahr 1863*. [Travels in Central Asia from Teheran through the Turkman Deserts on the east side of the Caspian Sea towards Chiwa, Bochara and Samarkand]. Brodhaus, Leipzig.
- Vengosh, A., Starinsky, A., Kolodny, Y., Chivas A.R. & Raab, M. (1992). Boron isotope variations during fractional evaporation of sea water: New constraints on the marine vs. non-marine debate. *Geology* **20**, 799-802.
- Wahl, R.R. (2005). Geologic map of quadrangles 3764 and 3664, Jalajin (117), Kham-Ab (118), Char Shango (123) and Shebergan (124) quadrangles, Afghanistan. Afghan

- Geological Survey in cooperation with the United States Geological Survey. *USGS Open-File Report* 2005-1092-A, *AGS Open-File Report* (117/118/123/124) 2005-1092-A.
- Whitney, J.W. (2006). *Geology, Water, and Wind in the Lower Helmand Basin, Southern Afghanistan*. U.S. Geological Survey Scientific Investigations Report 2006-5182.
- WHO (2011). *Guidelines for Drinking Water Quality (4th edition)*. World Health Organisation, Geneva.
- Wood, W.W. & Sanford, W.E. (2007). Atmospheric bromine flux from the coastal Abu Dhabi sabkhat: A ground-water mass balance investigation. *Geophysical Research Letters* 34, L14405. doi:10.1029/2007GL029922.
- Zavialov, P. (2005). *Physical Oceanography of the Dying Aral Sea*. Springer / Praxis, 146 pp. ISBN: 0123415567816.
- Zhou, Y. & McLennan, S.M. (2011). Experimental evaluation of photochemical influences of bromine and chlorine geochemistry on Mars. *Proceedings of the 42nd Lunar and Planetary Science Conference* (2011), 7-11th March 2011, Texas, USA. Paper 1667
- Zonn, I.S., Kostianoy, A.G., Kosarev, A.N. & Glantz, M.H. (2010). *The Caspian Sea Encyclopedia*. Springer-Verlag, Berlin / Heidelberg.
- Zonn, I.S. (2014). Karakum Canal: Artificial River in a Desert. In: Zonn, I.S. & Kostianoy, A.G. (eds), "The Turkmen Lake Altyn Asyr and Water Resources in Turkmenistan". *Handbook of Environmental Chemistry* **28**, 95-106. doi: 10.1007/698_2012_194.

Further Reading

- Aladin N., Plotnikov, I., Bolshov, A. & Pichugin, A. (undated). Biodiversity of the Caspian Sea. Caspian Sea Biodiversity Project, http://www.zin.ru/projects/caspsdiv/biodiversity_report.html, last accessed 11/1/13.
- Ashworth, J.M. (2005). *Groundwater Assessment of the Downstream Sections of the Balkh and Khulm Watersheds. Inception Report*. Ministry of Energy and Water, 2005.
- Breckle, S.W. (1983). Temperate deserts and semi-deserts of Afghanistan and Iran. Pages 271-319 in: West, N.E. (ed.) *Temperate deserts and semi-deserts*. Elsevier, Amsterdam.
- CAWater (2012). *Hydrogeology and groundwater*. <http://www.cawater-info.net/afghanistan/groundwater.htm>.
- Hassan Saffi, M. (2007). *Groundwater at risk in Afghanistan*. DACAAR Report, Kabul.
- Hassan Saffi, M. (2011). *Groundwater natural resources and quality concern in Kabul Basin, Afghanistan*. DACAAR Report, Kabul.
- Klemm, W. & Shobair, S.S. (2010). *The Afghan Part of the Amu Darya Basin. Impact of Irrigation in Northern Afghanistan on Water Use in the Amu Darya Basin*. http://www.unece.org/fileadmin/DAM/SPECA/documents/ecf/2010/FAO_report_e.pdf.
- Nathan Berger (1992). *Afghanistan Water Constraints. Overview Analysis*. Report submitted to the Office of the A.I.D. Representative for Afghanistan Affairs by Nathan Associates Inc. and Louis Berger International, Inc.

- Oberhänsli, H., Novotná, K., Píšková, A., Chabrillat, S., Nourgaliev, D.K., Kurbaniyazov, A.K. & Grygar, T.M. (2011). Variability in precipitation, temperature and river runoff in W Central Asia during the past ~2000 yrs. *Global and Planetary Change* **76**, 95–104.
- Rakhmatullaev, S., Huneau, F., Kazbekov, J., Le Coustumer, P., Jumanov, J., El Oifi, B., Motelica-Heino, M. & Hrkál, Z. (2010). Groundwater resources use and management in the Amu Darya river basin (Central Asia). *Environmental Earth Sciences* **59**, 1183–1193.
- Rout, B. (2008). *How the Water Flows: A Typology of Irrigation Systems in Afghanistan*. Afghanistan Research and Evaluation Unit (AREU).
- Rycroft, D.W. & Wegerich, K. (2009). The three blind spots of Afghanistan: water flow, irrigation development, and the impact of climate change. *China and Eurasia Forum Quarterly* **7(4)**, 115–133.
- Salama, R.B., Otto, C.J. & Fitzpatrick, R.W. (1999). Contributions of groundwater conditions to soil and water salinization. *Hydrogeology Journal*, **7(1)**, 46–64.
- Shobair, S.S. (2001). *Irrigation water management – crop water requirements*. Food and Agriculture Organisation of the United Nations (FAO), Peshawar (Pakistan), June, 111 pp.
- Tünnermeier, T., Houben, G. & Niard, N.; edited by Himmelsbach, T. (2005 / 2006). *Hydrogeology of the Kabul Basin* (3 parts). Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), Hannover, Germany.
- Uhl, V.W. & Qasem Tahiri, M. (2003). Afghanistan. An overview of groundwater resources and challenges. Uhl, Baron, Rana & Associates, Inc. http://www.vuawater.com/pages/Afghanistan_GW_Study.pdf.
- USAID (1976). *Helmand River Basin. Soil and Water Survey Study Report*. Government of Afghanistan and USAID.
- Zonn, I.S. (2002). *Water resources of Northern Afghanistan and their future use*. Paper presented at workshop on water, climate and development issues in the Amu-Dar'ya basin, Philadelphia, PA, 2002.