

Table S1. Selected papers in the literature from 2002 to 2021.

Titles	Authors	Subject Area	Year	Reference
Morocco's coastal aquifers: Recent observations, evolution and perspectives towards sustainability	Ez-zaouy, Y., Bouchaou, L. Saad, A., Hssaisoune, M. Brouziyne, Y., Dhiba, D., Chehbouni, A.	Environmental Science	2021	[14]
Geophysical data revealing the control of geological structures in the El Gouna springs in Souss river valley in Morocco	Hssaisoune, M., Boutaleb, Tagma, T., Benssaou, M., Beraaouz, M., Karaoui, I., Bouchaou, L.	Environmental Science	2021	[47]
Effect of Treated Wastewater on the Growth and Yield of Two Sweet Corn Varieties: Impact of Doses and Systems of Irrigation	Belabhir, A., Mansir, I., Bouchaou, L., El Otmani, M., Yaacoubi, B., Choukr- Allah, R.		2021	[57]
Agricultural intensification can no longer ignore water conservation – A systemic modelling approach to the case of tomato producers in Morocco	Benabderrazik K., Kopainsky B., Tazi L., Joerin J., Six J.	Agricultural Water Management	2021	[37]
A specific indicator approach for the assessment of water resource vulnerability in arid areas: the case of the Souss-Massa Region (Morocco)	Mansir I., Bouchaou L., Chebli B., Ait Brahim Y., Choukr-Allah R.	Environmental Science	2021	[21]
Global Climate Pattern Impacts on Long-Term Olive Yields in Northwestern Africa: Case from Souss-Massa Region	Abahous H., Bouchaou L., Chehbouni A.	Environmental Sciences & Ecology	2021	[34]

Gis-based land suitability and crop vulnerability assessment under climate change in Chtouka ait baha, morocco	Seif-Ennasr M.,Bouchaou L.,El Morjani Z. E.A.,Hirich A.,Beraaouz E.H.,Choukr-Allah R.		2020	[43]
Monthly precipitations over semi-arid basins in Northern Africa: Homogenization and trends	Abahous H., Guijarro Jose A.,Sifeddine A., Chehbouni A., Ouazar D., Bouchaou L.	Climatology	2020	[35]
Monitoring of long-term land degradation trends based of Landsat observations - The case of land productivity trends in Souss-Massa Region	Moussa S., Omar B.A., Hassan E.B.E.	Agricultural and Biological Sciences	2020	[44]
Moroccan groundwater resources and evolution with global climate changes	Hssaisoune M., Bouchaou L., Sifeddine A., Bouimetarhan I., Chehbouni A.	Geosciences/ Earth and Planetary Sciences	2020	[12]
Irrigation water management and collective action: understanding the shift from community management to participatory management in Souss-Massa (Morocco)	Azemzi H., Erraoui E.	Environmental Sciences & Ecology	2020	[39]
New evidences on groundwater dynamics from the Souss-Massa system (Morocco): Insights gained from dissolved noble gases	Hssaisoune, M., Bouchaou, L., Matsumoto, T., Araguas, L., Kraml, M., Aggarwal, P.	Geochemistry & Geophysics	2019	[55]
Assessment of water quality and nitrate source in the Massa catchment (Morocco) using $\delta^{15}\text{N}$ and $\delta^{18}\text{O}$ tracers	Danni, S., Bouchaou, L., Elmouden, A., Ait Brahim, Y., N'da, B.	Environmental Science & chemistry	2019	[49]

Assessment of the Groundwater Salinity Used for Irrigation and Risks of Soil Degradation in Souss-Massa, Morocco	El Oumlouki K., Moussadek R., Douaik A., Iaaich H., Dakak H., Chati M.T., Ghanimi A., El Midaoui A., El Amrani M., Zouahri A.	Agricultural and Biological Sciences	2018	[45]
Trend and change point analyses of annual precipitation in the Souss-Massa Region in Morocco during 1932-2010	Abahous H., Ronchail J., Sifeddine A., Kenny L., Bouchaou L.	Meteorology & Atmospheric Sciences	2018	[36]
Isotopes to assess sustainability of overexploited groundwater in the Souss–Massa system (Morocco)	Hssaisoune M., Bouchaou L., N'da B., Malki M., Abahous H., Fryar A.E.	Environmental Science - Chemistry	2017	[19]
Water use efficiency and valuation in agriculture in the Souss-Massa	Elame F., Lionbouli H., Choukr-Allah R.	Environmental Science	2017	[38]
Contribution of seawater desalination to cope with water scarcity in Souss-Massa region in southern Morocco	Hirich A., Choukr-Allah R., Nrhira A., Malki M., Bouchaou L.	Environmental Science	2017	[23]
Water resources master plan for sustainable development of the Souss-Massa River Basin	Choukr-Allah R., Nghira A., Hirich A., Bouchaou L.	Environmental Science	2017	[1]
Assessment of climate and land use changes: Impacts on groundwater resources in the Souss-Massa river basin	AitBrahim Y., Seif-Ennasr M., Malki M., N'da B., Choukrallah R., El Morjani Z.E.A., Sifeddine A., Abahous H., Bouchaou L.	Environmental Science	2017	[5]

Assessment of groundwater quality: Impact of natural and anthropogenic contamination in Souss-Massa river basin	Malki M., Choukr-Allah R., Bouchaou L., Hirich A., AitBrahim Y., Krimissa S., Hssaisoune M., Nghira A., Barceló D.	Environmental Science	2017	[46]
Groundwater Resources Scarcity in Souss-Massa Region and Alternative Solutions for Sustainable Agricultural Development	Mansir I., Bouchaou L., Choukr-allah R., Chebli B., El Otmani M.	Environmental Science	2018	[42]
Inter-annual variability of precipitation in the Souss Massa region and linkage of the North Atlantic Oscillation.	Abahous, H Sifeddine, A. Bouchaou, L Ronchail, J. Morjani, Z.E.A., Ait Brahim Y., Kenny L.	Environmental Science	2017	[6]
Assessment of Global Change Impacts on Groundwater Resources in Souss-Massa Basin	Seif-Ennasr M., Malki M., Bouchaou L., Beraaouz E.H., Hirich A., Zaaboul R., El Morjani Z.E.A., Choukr-Allah R., Nrhira A.		2017	[2]
Socio-economics and governance of water resources in the Souss-Massa river basin	Moha H., Fouad E., Houria A., Choukr-Allah R.	Environmental Science	2017	[41]
Impact of agricultural practices on groundwater quality in intensive irrigated area of Chtouka-Massa, Morocco	Malki M., Bouchaou L., Hirich A., AitBrahim Y., Choukr-Allah R.	Environmental Science	2017	[22]
The origin of geothermal waters in Morocco: Multiple isotope tracers for delineating sources of water-rock interactions	Bouchaou L., Warner NR., Tagma T., Hssaisoune M., Vengosh A.,	Geochemistry & Geophysics	2017	[56]

Evolution of groundwater quality in intensive agricultural zone: case of Chtouka-Massa Aquifer, Morocco	Malki M., Choukr-Allah R., Bouchaou L., AitBrahim Y., Hirich A., Reichert B.	Geology	2016	[3]
Climate change and adaptive water management measures in Chtouka Aït Baha region (Morocco)	Seif-Ennasr M., Zaaboul R., Hirich A., Caroletti G.N., Bouchaou L., El Morjani Z.E.A., Beraaouz E.H., McDonnell R.A., Choukr-Allah R.		2016	[15]
Feasibility of using desalination for irrigation in the souss massa region in the South of Morocco	Hirich A., Choukr-Allah R., Rami A., El-Otmani M.	Environmental Science-Engineering-Earth and Planetary Sciences	2015	[40]
Projections climatiques pour la région de Souss Massa Drâa: décades 2045-55 et 2090-2100. Paper presented at the Séminaire de diffusion des résultats du projet Climatique, Agadir, Maroc	Díaz JP., Pérez JC.		2014	[32]
Etude des impacts des changements climatiques sur les ressources hydriques de la region souss-massa-draa.	Moroccan agency for solar energy (MAZEN)		2014	[31]
Occurrence and mobilization of radium in fresh to saline coastal groundwater inferred from geochemical and isotopic tracers (Sr, S, O, H, Ra, Rn)	Vinson, D.S., Tagma T., Bouchaou L. Dwyer G.S., Warner N.R., Vengosh A.	Applied Geochemistry	2013	[82]
Water valuation in agriculture in the Souss-Massa Basin (Morocco)	Elame F., Doukkali R.	Agricultural and Biological Sciences	2012	[83]

Isotopes and groundwater management strategies under semi-arid area: Case of the Souss upstream basin (Morocco)	Bouragba L., Mudry J., Bouchaou L., Hsissou Y., Krimissa M., Tagma ., Michelot J.,	Physics/Isotopes	2011	[16]
Climate change and its impacts on groundwater resources in Morocco: The case of the Souss- Massa basin	Bouchaou L., Tagma T., Boutaleb S., Hssaisoune M., El Morjani Z.E.A.,	Environmental Science	2011	[4]
An isotopic study of surface water and groundwater in a semi-arid environment: Souss-Massa basin in SW Morocco	Bouchaou L., Tagma T., Hsissou Y., Ikenne M., Boutaleb S., Bouragba L., Mudry J., Michelot J.L.	Earth and Planetary Sciences	2009	[17]
Groundwater nitrate pollution in Souss-Massa basin	Tagma T., Hsissou Y., Bouchaou L., Bouragba L.	Environmental Science	2009	[13]
Application of multiple isotopic and geochemical tracers for investigation of recharge, salinization, and residence time of water in the Souss-Massa aquifer, southwest of Morocco	Bouchaou L., Michelot J.L., Vengosh A., Hsissou Y., Qurtobi M., Gaye C.B., Bullen T.D., Zuppi G.M	Engineering; Geology; Water Resources	2008	[48]
Etude de Révision du Plan Directeur d'Aménagement Intégré des Ressources en Eau (PDAIRE) des bassins du Souss Massa	Agence du bassin hydraulique Souss-Massa		2007	[27]
2H and 18O isotopic study of ground waters under a semi-arid climate	Bouchaou L., Hsissou Y., Krimissa M., Krimissa S., Mudry J.	Earth and Planetary Sciences / Environmental Science	2005	[18]

**Use of chemical tracing to study acquisition
modalities of the mineralization and behaviour of
unconfined groundwaters under a semi-arid
climate: The case of the Souss plain (Morocco)**

Hsissou Y., Bouchaou L.,
Mudry J., Mania J., Chauve
P.

2002 [20]