

WAEI SEIF

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PERSONAL DETAILS

Family Name: - SEIF
First Name: - Wael
Academic Degrees: - PhD: Groundwater Hydrology (Numerical Modelling- Seawater Intrusion), University of Leeds, United Kingdom
- Master Degree: Hydraulics, Damascus University
- Diploma: Water Resources Management, Damascus University
- Civil Engineering: Damascus University
Nationality: - Syrian
Date of Birth: - 12/February/1966
Birthplace: - Damascus, SYRIA
Marital Status: - Married
Children: - Two: daughter and son

SKILLS AND COMPETENCIES

- Work experience with a number of local and international agencies and organisations/ programmes (JICA, GTZ, BGR, ACSAD, SPC, DPM advisory office, InWent, UNDP, WB, RPC) in water management and irrigation projects as an assistant, consultant, coordinator, evaluator and project manager. Main current involvement is in Ground Water Hydrology, Integrated Water Resources Management (IWRM) and Water Planning, Strategies and policies.
- Regional expert on network development and planning.
- Involved in writing water strategies, policies and evaluation reports.
- Involved in writing the chapter of irrigation for the state 10th 5YP (State Planning Commission) and suggesting water execution policies for the Ministries of Irrigation, Ministry of Agriculture and State Planning Commission of Syria.
- Experience in rationalization of water use in Syria and its role in strengthening national water and food securities.
- Involved in a number of capacity building projects and training course giving
- Experience in teaching water resources management, groundwater hydrology, fluid mechanics, applied mathematics and numerical analysis, hydraulic experiments, surveying, irrigation and drainage and related basic software
- Many years experience working as a designer and executive water and structure engineer.
- Good numerical and mathematical modelling experience in the fields of groundwater hydrology, hydraulics and solute transport

- Experience in using FORTRAN, C and C++ programming languages and capable to use new structural and water engineering software packages
- Able to work independently and as a part of a team

EDUCATION AND QUALIFICATION

- 1999-2004 School of Civil Engineering - University of Leeds**
PhD in Groundwater Modelling: *“The development of an efficient and stable solution to the advection dispersion equation for saline groundwater flow.”*
 During my research, I developed a 2-D density dependent numerical solution of the groundwater flow and transport equations in coastal aquifers using the finite volume (F.V) method. While doing the PhD, relevant academic courses, workshops and training programmes were undertaken. Additional skills and technical knowledge were added to my background in areas of groundwater flow, numerical techniques and programming languages.
- 1996-1998 Department of Water Engineering - Damascus University.**
Master Research Degree in Hydraulics. *“Transient Analysis of Pipelines and Pumping Systems Using Computer Modelling Techniques.”*
 Using the characteristic numerical techniques, FORTRAN programs were developed to analyse the water hammer phenomenon. Solutions for protecting pumping stations and pipelines were accurately set up.
- 1994-1995 Department of Water Engineering - Damascus University.**
Diploma (M.Sc.) in Water Engineering
 Completed Diploma ranked first in the Faculty of Civil Engineering. Subjects included advanced modules in Mathematics and Programming, Hydraulics, Water Structures, Irrigation and drainage, Surface and Groundwater Hydrology and Water Construction Technology and Engineering Management. Diploma thesis: *“Analysis and Planning of Water Resources in Yarmouk Water Basin.”*
- 1984-1989 Faculty of Civil Engineering, Damascus University.**
B.Eng. in Civil and Structural Engineering
 Ranked fourth in graduation out of seven hundred and twenty four graduates.
 The subjects covered most of the Civil Engineering topics.
 Final year project: Structural design of a holiday resort centre. A FORTRAN program was developed for the design of the beams and foundations.
- 1983-1984 International Baccalaureate; science division**

OTHER EDUCATION

- 2004-2010** “Partner Forum” on water governance issues important for the (MENA) region. The 5th training conference on Water Governance in the MENA region: focus on “Water Governance: Sharing Benefits, Costs and Responsibilities”. June, 2010.

Training courses in water resources management organized by SIDA (Trans-boundary Water Management in Jordan and Sweden, 2008).

Participate in the Invent related capacity building workshops in Cairo and Jordan, 2007, 2009.

Groundwater hydrology training course organised by the SDWC, Syria, 2006

Training course in Integrated Water Resources Management (IWRM) in UNESCO IHE Water Institute, Delft, Netherlands, 2007

Training course on WEAP (A Decision Support System for Water Resources Management), Stockholm, Sweden, 2006

Training course on WAS (Water Allocation System) by the SDWC, 2006, Syria

TEACHING EXPERIENCE

- 2004 - Staff member in the Faculty of Civil Engineering, Damascus University**
Teaching hydrology and hydrogeology, numerical modelling, water resources assessment and advanced Hydraulics to postgraduates.
Teaching hydraulics, hydrogeology, integrated water resources management (IWRM) and English language to undergraduates.
- Faculty of Science, Department of Hydrogeology, Damascus University**
Teaching *Water Resources Management - Tools and Implementation*, for the fourth year students.
- 1999-2004 School of Civil Engineering, University of Leeds**
Teaching assistant and laboratory demonstrator for undergraduates in fluid mechanics, open channels, numerical mathematics, basic IT including, IWRM, operating systems and a number of civil engineering software packages such as QSE, GSA, and AutoCAD, surveying, strain and stress, and involved in writing and marking students' exam sheets and coursework.
Assistant of supervisor's projects and surveying projects
- Park-lane College**
Assistant for teaching English Language for foreigners
- 1993-1999 Faculty of Civil Engineering, Damascus University**
Assistant lecturer. Duties included giving regular lectures in hydraulics and water structures.

TEACHING BOOKS and HANDOUTS

- Tajjar, H. Seif, W. Solaiman, A. Ali, H. Al Shareef, M and Abou Shaer, W. *Water Resources Assessment*. TEMPUS Meda Programme JEP 31054, 2006
- Supervising and editing six different training books in three main subjects: *Basic Hydrogeology, Water Demand Management, Land and Water Development* for IWRM courses for Raqqa Water Training Centre in Syria, 2007-2009
- *Basics Groundwater Hydrology* for the 3rd year, Faculty of Civil Engineering, Damascus University, 2010
- *Hydrogeology- Numerical Modelling* for the 4th year students, Department of Irrigation and Drainage, Faculty of Civil Engineering, Damascus University, 2009
- *Integrated Water Resources Management: Strategies Policies and Planning* for the 5th year students Civil Engineering, Damascus University, 2009
- *Water Resources Uses and Management* for the 4th year students at the Department of Hydrogeology Faculty Of Sciences, Damascus University, 2008
- English for Civil Engineers, for the 5th year student of the Faculty of Civil Engineering, Damascus University, 2005
- English for Water Engineers for the 5th year student of the department of Irrigation and Drainage, Damascus University, 2007
- Problem Solved in Hydrogeology and Hydraulics, for 3rd and 4th year students, Department of Irrigation and Drainage, Damascus University, 2008
- *Advanced Hydraulics and solved problems* for postgraduates Department of Irrigation and Drainage, Damascus University, 2006
- *Advanced hydrogeology* for postgraduates Department of Irrigation and Drainage, Damascus University, 2006
- *Open Channels Laboratory Demonstration Note*, School of Civil Engineering, University of Leeds, 2002

WORK EXPERIENCE

- 2012-** **Arab Centre for Studies of Arid Zones and Dray Lands (ACSAD)**
Director, Water Resource Department
I am responsible for running projects of three main programmes: Water Resources Protection, Water Resources Development, and Integrated Water Resources Management. The department is fully mandated by the League of Arab States (LAS) and my main duties are to technically assist the Arab Ministerial Water Council (AMWC) in coordination with regional water organisations.
- 2010- 2013** **Faculty of Civil Engineering, Dept. of Water Engineering**
Coordinator for *Development of a modern Higher Education System for Water Engineering in Syria*: EDUWAT, EU-TEMPUS project
- 2011** **Syrian Prime Minister Office – Regional Planning Commission**
Water consultant to support the establishment of the Regional Planning Commission and draw a water resources plan of action
- 2010-** **Prime Minister Office – Commission for Scientific Research:**
Member of the national committee for water resources research and planning
- 2009-2011** **Deputy Prime Minister Office:**

- Water resources adviser
Adviser for the national water committee for reviewing the National Water Strategy 2011-2015/ 5YP
- 2009 State planning Commission:**
Member of the steering committee for discussing the National Water Strategy
- 2007** Team leader for the irrigation executive reform programme
- 2005 – Syrian-Dutch Water Co-operation (SDWC) Programme**
Resident adviser and appointed resident manager since 2008
- 2005-2007** Project manager: *development of the national training centre on water resources management in Raqqa, Syria*
- 2005-2007** Assistant programme director for programme execution and representative
- 2005 – Ministry of Irrigation (within the SDWC programme)**
Establishing a water resource unit in Idleb for the Ministry of Irrigation
Establishing water resources monitoring office in Hama and Homs for the Ministry of Irrigation
Organizing a number of capacity building programmes on water resources management in Departments of the Ministry of Irrigation in Homs, Raqqa and Hama.
Supervisor for development of six IWRM courses in Raqqa national water centre
- 2007- Ministry of Agriculture and agrarian reform**
Member of the joint evaluation team (Japanese and Syrian experts) and leader of the Syrian experts of the project on development of efficient irrigation techniques and extension in Syria; DEITEX Project funded by JICA.
- 2006-** Member of the advisory committee of the Arab Journal for Water
- 2007- Damascus City Council, Governorate**
Member of the study evaluation team (reviewer of the Hydro-geological study) for the project of Damascus Metro-Green Line Implementation Options Study.
- 2004 – 2006 State Planning Commission**
Water resources consultant and involved in the discussions with the Ministry of Irrigation regarding water resources policies and planning. Also was involved in writing the chapter of irrigation and agriculture for the 10th 5YP.
- Faculty of Civil Engineering, Damascus University**
Member of the EU-TEMPUS programme
- ACSAD**
Groundwater hydrology specialist and water resources trainer – strategies and water policies
- 1999- 2004 Leeds University Accommodation Office:** Part-time job as units-supervisor
- 1989- 1993 Department of Water Supply, Ministry of Housing and Utilities, Syria**
Designer and executive water/structural engineer. Duties included designing pipeline networks, structural design of water purification stations and buildings of administration, and participating in workshops for the design of pipeline networks and open channels

1989-1997 Al-Kawadry for Engineering, Damascus, Syria

Consultant structural engineer within the private sector. Duties included design and constructing open channels, swimming pools, multi-storey reinforced concrete buildings and villas

PUBLICATIONS, REPORTS, TRAININGS AND CONDUCTED STUDIES

- Bergaoui, M and Seif, W. *Study of Inter-annual Rainfall Variability, Basin Al-Hamad - Iraq*. Arab Water Council Journal, Volume 4. January 2013
- Bergaoui, M. and Seif, W. *Comparability Analyses of the SPI and RDI Meteorological Drought Indices in Arid Climatic Zones: case study of Al-Hamad basin*. Arab Water Council Journal, Volume 5. December 2014
- Seif, W. and others. *Groundwater Hydrological Study of the Coastal Basin in Syria*, Published by ACSAD, 2014
- Sibai, M, Abdallah, A and Seif, W. *Groundwater Vulnerability Map Of The Uppermost Aquifer in UAE*, Published by ACSAD. 2013
- Seif, Wael. Syrian Dutch Water Cooperation. *Integrated Water Resources Management as a Frame Work for Regional Planning, Policies, Decision-Making and Organisation*. May 2011
- Azad, Abdual Hameed and Seif, Wael. *Brief Water Sector Strategy Note for Syria*, World Bank, October, 2010.
- Kayyal, Mohammad and Seif, Wael *Preparation of an Integrated Water Resources Management Document and GEF Proposal for Coastal and Orontes River Basins* Water Resources Management Project. October, 2010.
- Seif, Wael. Sustainable Use of Groundwater and the role of Syrian Dutch Water Co-operation activities 2009-2012. NIASD, Damascus February 2010.
- Seif, Wael. *Challenges facing the Syrian Water Sector*. Workshop on **Sustainable Agriculture in Syria: Identifying Opportunities for Cooperation**. National Academy of Sciences, CRDF, Damascus Univ. ICARD; Damascus 5-7 January 2010.
- Sonnevile, Jos de, Seif, W., Kloosterman, F., Passchier, R.H. and Bouma, G. Concepts of the bridging phase for the Syrian Dutch Water Cooperation, 2009
- Kloosterman, F.H., Seif, W. & J. Stafleu. Inventory WEAP/MODFLOW Linkage mission report for the third phase of the Syrian-Dutch water cooperation, 2009
- Seif, Wael. *Drought problems and its influences on our Water Resources*, UNDP workshop in the north eastern area of Syria, 2009
- Seif, Wael. *water and economy*; Linkages with other sectors: influence on water governance: Contribution to the International Partner Forum: Water Governance in the MENA Region: Policies and Institutions, Dead Sea, Jordan, June 2009
- Seif, Wael. *National Water Resources Strategy 2015*, a discussion paper presented to the Head of the State Planning Commission, 2009
- Seif, Wael. *Evaluation of the on-going water projects and water resources management system in the Euphrates water basin*, report to the Deputy Prime Minister Office, 2009
- Seif, Wael. *Evaluation of the Existing Water Resources System in Albayroni Hospital: Suggestions and Execution Plan for the Rehabilitation of the Groundwater Wells and Drinking and Waste Water Systems*, Ministry of Higher Education, 2009
- Seif, Wael. *What is Needed for Setting a Water Resources Strategy*, State Planning Commission, Syria, 2009
- Seif, Wael. *Managing Water Resources in Basins*, State Planning Commission, Syria, 2009

- Seif, Wael. *Evaluation of the Euphrates Water Projects in Syria*, Deputy Prime Minister Office, 2009
- De Vries, Arjen; Timmerman, Jos; Seif, Wael and De Vries, Gerard. *Improving Water Resources Information Management and Monitoring within Mol*. 2008
- Fokens, Bart; Geldof, Govert; De Vries, Gerard and Seif, Wael. *National Planning Report on Water Resources Management*, Ministry of Irrigation. Syria, 2008
- Seif, Wael and De Vries, Gerard. *Development of four curricula's in water resource management*, Raqqa training centre, MOI, Syria, 2008.
- De Vries, Gerard and Seif, Wael. *Water Resources Monitoring*, Ministry of Irrigation Syria, 2008.
- Seif, Wael. *Why IWRM? Current Status of Water Resources Management in Syria*. GTZ workshop about WRM with co-operation with the state planning commission. Damascus, September 2007.
- Seif, Wael. *Evaluation report of Hydrological Analysis and Drainage Study (task 14) for the project on Damascus Metro-Green Line Implementation Options Study*, Directorate of Traffic and Transport Engineering, Damascus, 2007
- Seif, Wael. *Capacity Building for Better Integrated Water Resources Management*, Syrian Dutch Water Co-operation symposium, 2007.
- Seif, Wael. *Evaluation report of the project on development of efficient irrigation techniques and extension in Syria*. JICA office, Damascus, 2007
- Katana, Hassan; Seif, Wael and Barsch, Reinhart. *Reformation Policies of Agriculture and Irrigation-executive programmes*, report, DPM office, 2007
- Seif, Wael and Gerard de Vries. *Review of the Syrian 10th five year plan*, water national workshop, Netherlands, 2007
- Seif, Wael. Establishment of a water resource management office for Orontes basin in Hama and Homs. Report to the NL news agency and three related articles in the NL SDWC newsletter.
- Seif, Wael, *Decision Support System (DSS), a tool for water resources management*, ACSAD, 2006.
- Seif, Wael. *Water Quality Management - the way forward*, Cairo, 2007
- Seif, Wael and Jan Foppen, *Capacity Building in Water Sciences*, proposed report UNESCO-IHE, Netherlands, 2006
- Seif, Wael. *Water Management in Syria - Strategies and Policies* Transboundary Water Management Training course. Individual Project, Stockholm, 2007
- Seif, Wael. *Groundwater Modelling*; chapter in a university reference book, 2006
- Seif, Wael. *Policies of Water Resources Development in Syria*, Water Conference, Damascus, 2006.
- Seif, Wael. *Concepts of Groundwater Modelling*, Jordan University of Science and Technology, 2006.
- Seif, Wael. *Water Resources Management (Agriculture and Irrigation sectors)*, UNDP report, 2005
- Seif, Wael. *The development of an efficient and stable solution to the advection dispersion equation for saline groundwater flow*, Leeds University, Parkinson Library of science, 2004.
- Seif, Wael and Kostas, T. *Open Channel Hydraulics* teaching handout, Leeds University, 2003
- Seif, Wael. *Suggestions for water studies and research area*. A report presented to the Syrian State Planning Commission, 2007.
- Transboundary water training programme in Jordan and Stockholm; presented an individual project on water strategies and policies in Syria, 2006-2007
- Seif, Wael. Projection analysis for the sectors of Agriculture, Oil and Gas Industry, Energy and Tourism in the State Planning Commission, 2005
- Seif, Wael. Comment report on the water resources status for the tenth five year plan, 2005.

- Seif, Wael. *Decision Support Systems (DSS) for Natural Resources Management (NRM)*, ACSAD, 2005
- Seif, Wael. *Water Resources in Orontes Basin*, University of Amman, Jordan, 2005.
- Seif, Wael. *Water Capacity Building in Raqqa Training Centre*, 2006.
- Seif, Wael. *Fundamentals of Groundwater Modelling*, Directorate of Orontes Basin, Hama, Syria, 2005.
- Seif, Wael. *Excel Application of Groundwater Modelling – Examples*, 2005
- Seif, Wael. *Qualification of some selected Engineers from the Ministry of Irrigation, Syria*. Assessment report for choosing candidates for master degree in water engineering, 2005.
- Conducted a research study in the unsteady flow in pipeline systems and developed a numerical model and software in FORTRAN for the water hammer problems in water pipeline and pumping systems, 1993-1995. The research has been published and the program was used by industry in Syria.
- Seif, Wael. *Analysis of the Unsteady Flow in Pipelines and Pumping Station*, *Journal of sciences*, Damascus University, 1995.

OTHER SKILLS, INTERESTS AND ACTIVITIES

- My mother tongue is Arabic and I am fluent in English.
- Attended and participated in a number of national and international water conferences.
- Moderation, presentations and chairperson in a number of water related workshops and conferences.
- Member of the Institute of Civil Engineering (ICE)-UK, the Syrian Computer Society and Damascus Society of Civil Engineers.
- Member of the advisory committee of the Water Journal of the Arab Water Council.
- Awarded a PhD scholarship jointly from Damascus and the British Council “Chevening awards.”
- Awarded scholarships from Damascus University for my Diploma and Master degrees.