

Ayoub Adam Mohamed Khalil
Professor
(Ecophysiology)



Date of birth: 1961

Nationality: Sudanese

Marital status: Married (Four children).

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Qualifications:

- i. Ph.D. (Tree Physiology) University of Edinburgh, Scotland, 1990-1993.**
- ii. B.Sc. Forestry (Hon.) Class One, University of Khartoum, 1980-1985.**

Work Experience:

- i. Vice-Chancellor, University of Bahri, 2011 to date.**
- ii. Deputy Vice-Chancellor, University of Juba, 2006-2011.**
- iii. Secretary for Academic Affairs, University of Juba, 2003-2006.**
- iv. Professor of Ecophysiology, University of Juba, January 2004.**
- v. Dean, College of Natural Resources and Environmental Studies, University of Juba, 1998-2001.**
- vi. Deputy Dean, Graduate College, University of Juba, 1997-1998**
- vii. Associate Professor, University of Juba April 1997-2003: Department of Forestry, University of Juba.**
- viii. Assistant Professor, University of Juba, 1993-1997**
- ix. Teaching Assistant, University of Juba, 1988-1993**
- x. Research Assistant, Agricultural Research corporation, Sept. 1986-1988**
- xi. Forest Assistant Conservator, Forest National Corporation, April-Sept. 1986**

Competencies:

- i. Knowledge and skills in teaching, research and capacity building.
- ii. Experience in curricula development, workshops and conferences planning and organization.
- iii. Knowledge and experience of Windows XP, MS Word, Excel, PowerPoint, Access and Internet.
- iv. Excellent written and spoken communication skills.

Professional Training

- i. Certificate in political strategic planning, Center for Leaders Training, Security Higher Academy, Khartoum, 2008.
- ii. Certificate in institutional management in higher education, UNESCO, IICP, Kampala, Uganda, 2007.
- iii. Certificate in preparation and execution of research project proposals, Arab Council for Higher Education and Scientific Research, University of Cairo, Egypt, 2005.

Professional Experience:

- i. Secretary for Graduate Studies Committee 1995-1998.
- ii. Reviewer, Functional Ecology, Blackwell Scientific Publication, UK, 1993.
- iii. Editorial Secretary, *Journal of National Resources and Environmental Studies* 1995-1998
- iv. Member, Editorial Board, *Sudan Silva*, 1998 to date.
- v. Chairman, Afforestations Evaluation Team 1997, 1998 and 2002, Forest National Corporation, Sudan.
- vi. Secretary for steering committee, symposium on the "Role of Scientific Research on Integrated Biological control of Desert locust (3-5 Oct.1995) organized by the College of Natural Resources and Environmental Studies in collaboration with Federation of Arab Scientific Research councils.
- vii. Attended IXX IUFRO World Congress 2000, 7-12 August, Kuala Lumpur, Malaysia.
- viii. Participated in the Regional Workshop on Management of Trees for Farmland Rehabilitation, Khartoum-Sudan, 28 Oct.-7Nov. 2000. Organized by University of Helsinki, CAT, IFS, AAS, DFID and Forest National Corporation- Sudan.
- ix. Participated in the Eastern and Central Africa ANAFE Regional Meeting 16-18 April 2000, Eldoret, Kenya.
- x. Participated in the National Workshop for Agroforestry Outlook in Sudan, organized by the Faculty of Forestry , University of Khartoum in collaboration with ANAFE, ICRAF; 21-22 May, Khartoum, Sudan.
- xi. Chairman, Steering Committee, Workshop on Participatory Agroforestry Curriculum Development (M. Sc. Programme), organized by College of Natural Resources and

Environmental Studies, University of Juba in collaboration with ANAFE, 1-2 August 2001, Khartoum, Sudan.

- xii. Chairman, DACUM Chart Analysis Committee, which was mandated to develop the above mentioned M. Sc. Programme in August 2001.
- xiii. Member, Editorial Board, *Juba University Journal of Arts and Sciences*, 2004-2011.
- xiv. Chairman, Steering Committee, Conference on Distance Education in Sudan: Present and future, 16-18 May 2005; organized by University of Juba in collaboration with Sudatel.
- xv. Chairman, Steering Committee, Conference on: Academic Freedom and University Autonomy in Post-conflict Sudan, 26-27 February 2007 Khartoum; organized University of Juba in collaboration with CODESRIA.
- xvi. Institutional coordinator for NUCOOP (Norwegian University Cooperation Programme for Capacity Development in Sudan) funded projects in the University of Juba, 2008-2011.

Research interest and contributions:

I have established the **Ecophysiology Laboratory**, through the acquisition of the most modern portable equipment and research facilities, which paved the way for commencement of graduate studies in this important area. This Lab is the first and the only laboratory of its kind in Sudan. It has provided invaluable opportunities for training and researching at both undergraduate and graduate levels. We have conducted original research in the field of tree physiology and tree improvement during the last 15 years and some of this work has been published in reputable journals. My research group is now active in the area of water relations of trees, tree-crop interactions in agroforestry systems, provenance trials for selection of trees suitable for arid zones afforestation, and vegetative propagation. Some of our ongoing research projects are the following:

- i. Water relations of *Cordia africana*, *Eucalyptus citradora*, *Acacia nilotica* and *Morus alba*;
- ii. Comparative physiology and propagation of *Grewia tenax* provenances: the aim of this project is to identify, collect and distribute superior genotypes acceptable for plantation in different environments under rainfed and irrigated conditions and their integration into agroforestry systems;
- iii. Intraspecific variation in drought and salt tolerance of *Acacia senegal*, *Acacia nilotica* and *Cordia africana*: the objective is to screen suitable genotypes to improve the productivity and for integration into agroforestry systems.
- iv. I have supervised a number of graduate students, who completed their studies successfully (5 MSc; 6 PhD).

Publications:

- i. **Khalil A. A. M, and Grace, J, 1992.** Acclimation to drought in *Acer pseudoplatanus* L. (Sycamore) seedlings. *Journal of Experimental Botany*, 43, 1591-1602.

- ii. **Khalil, A. A. M., and Grace, J 1993.** Does xylem sap ABA control the stomatal behavior of water-stressed sycamore (*Acer Pseudoplatanus* L.) seedling? *Journal of Experimental Botany* 44, 1127-1134.
- iii. **Centrito, M., Khalil, A. A. M., Crowe, J, Lee, H., and Jarvis, P. G. 1994.** The Interaction of elevated CO₂ and water stress on cherry (*Prunus avium*) seedlings. *Journal of Experimental Botany*, 45. P8.25.
- iv. **Jackson, G. E., Irvine, Grace, J. and Khalil, A.A.M., 1995.** Abscisic acid concentration and fluxes in droughted conifer saplings. *Plant, cell and Environment*, 18.13-22.
- v. **Khalil, A.A.M., and Grace, J. 1997.** Acclimation of photosynthesis to soil drying in sycamore (*Acer pseudoplatanus* L.). *Journal of Natural Resources and Environmental Studies*, 1,43-53.
- vi. **Khalil, A. A. M., El Nour, M., Abdelmajid, E. Alhazworh, H. S.1999.** Comparative responses of seedlings of four arid zone tree species to salinity. *Journal of Natural Resources and Environmental Studies*. 2, 43-52.
- vii. **Siam, A. M. J., and Khalil, A. A. M. 2002.** The effect of drought conditioning on water relations and growth of *Acacia senegal* (L.) Willd seedlings. *Journal of Natural Resources and Environmental Studies*. 3, 43-50.
- viii. **Khalil, A. A. M and Siam, A. M. J. 2003.** Effect of soil drying on water relations and growth of four provenances of *Acacia senegal* seedlings. *University of Khartoum Journal of Agricultural Sciences* 11 (1), 117-133.
- ix. **Khalil, A. A. M. and Siam, A. M. J. 2003.** Effect of seed source on morphometric and germination characteristics of *Acacia senegal* (L.) Willd seeds. *University of Khartoum, Journal of Agricultural Sciences* 11 (2), 99-114.
- x. **Khalil, A. A. M., and Abdelgadir, O. M. 2003.** Provenance variations in the responses of *Cordia africana* seedlings to soil drying. *University of Khartoum Journal of Agricultural Sciences* 11(2), 115-138.
- xi. **Khalil, A. A. M and Siam, A. M. J. 2003.** Intraspecific variation in leaf anatomy and seedling morphological and physiological characteristics of *Acacia senegal*. *University of Khartoum, Journal of Agricultural Sciences* 11 (3), 400-413.
- xii. **Khalil, A. A. M. and Bagie, A. P. 2003.** Physiological and morphological performance of seedlings of three *Acacia nilotica* subspecies. *Sudan Silva* 29, 6-23.
- xiii. **Abdelkheir, R. M., Ibrahim and A. M. Khalil, A. A. M 2003.** Provenance variation in seed and germination characteristics of *Acacia karroo*. *Sudan Silva* 9 (2), 14-28.
- xiv. **Bagie, E. P. and Khalil, A. A. M. 2003.** Seed morphometric, germination and biochemical characteristics of three subspecies of *Acacia nilotica* (L) willd. *University of Khartoum, Journal of Agricultural Sciences* 12 (1), 115-128.
- xv. **Khalil, A. A. M, Abdelkheir, R. M. and Ibrahim, A. M. 2004.** Gas exchange and leaf growth in ten provenances of *Acacia karroo* Hayne seedlings. *Sudan Silva* 10 (1), 43-56.
- xvi. **Khalil, A. A. M, Abdelkheir, R. M. and Ibrahim, A. M. 2004.** Provenance variations in morphological characteristics of *Acacia karroo* Hayne seedlings. *University of Khartoum, Journal of Agricultural Sciences* 12 (2), 219-234.
- xvii. **El Nour, M., Abdelmajid, E. and Khalil, A. A. M. 2005.** Effect of salinity on seed germination characteristics of five arid zones tree species. *University of Khartoum, Journal of Agricultural Sciences* 13.

- xviii. **Siam, A. M. J., and Khalil, A. A. M. 2011.** Genotypic variation in physiological responses of *Acacia senegal* (L., Willd) seedlings to soil drying. *Journal of Egyptian Academic Society for Environmental Development* 12 (2), 11-22.
- xix. **Abdelkheir, R. M., Hamza, N. B., Khalil, A. A. M. and Warrag, E. I. 2011.** Genetic Variation within and Among Five natural Populations of Endangered *Sclerocarya birrea* (A. Rich) subsp. *Birrea* in Sudan. *African Journal of Biotechnology*, 10 (28) 5452-5460.
- xx. *Journal of Biotechnology*, 10 (28) 5452-5460.

Articles presented in workshops:

- i. **Khalil, A. A. M. 2000.** The current status of agroforestry teaching and research in University of Juba and the future prospects. Eastern and Central Africa ANAFE Regional Meeting 16-18 April 2000, Eldoret, Kenya.
- ii. **Khalil et al. 2002.** Curriculum for M.Sc. in agroforestry 2002. Follow-up Workshop on Participatory Curriculum Development in Agroforestry; University of Juba in collaboration with ANAFE, 15 April 2002. Khartoum.

Reports rendered to public institutions:

- i. **Khalil et al. 1997.** Evaluation of afforestation activities, Darfur Region. Ministry of Agriculture and forests; National Forests Corporation.
- ii. **Khalil et al. 2000.** Evaluation of afforestation activities, Eastern Region. Ministry of Agriculture and forests; National Forests Corporation.
- iii. **Khalil et al. 2003.** Evaluation of the general performance of the Forests National Corporation, Kordofan Region. Ministry of Agriculture and forests; National Forests Corporation.

Memberships:

- i. Member, Scientific Research Committee, Ministry of Higher Education and Scientific Research 2002-2010;
- ii. Member, Agriculture and Natural Resources Committee, Ministry of Higher Education and Scientific Research 2007-2010;
- iii. Member, Administration Council of Animal Resources Research Corporation 1998-2000;
- iv. Member, Policies Committee, Forests National; Corporation 2000-2008;
- v. Member, Editorial Board, Sudan Silva 1999 to date.
- vi. Member, Acacia Senegal Group, Forests National Corporation.
- vii. Member, Technical Committee, Forests National Corporation Council, December 2003-2010.
- viii. Member, National Council for Training, Ministry of Labor, Public Service and Human Resources Development, 2005-2010.