

## CURRICULUM VITAE



Name: **Mubarak Abdelrahman Abdalla**

Title: Professor (**Ph.D**)

Soil Science (Fertility/Chemistry) Dryland farming, Waste management and nutrient cycling, desert cultivation)

Passport No., date and place of issuing: P 01059476, 10/12/2013, Sudan

Date and place of birth: 01/01/1960, Gezira Aba (Sudan)

Nationality: Sudanese

Mother tongue language: Arabic

Other languages: English (fluent, IELTS and Toffel), German (moderate), Bahasa Malay (moderate)

Marital status: Married with four children (two girls and two sons)

Sex: Male

Address: Department of Soil and Environment Sciences, Faculty of Agriculture, University of Khartoum (U of K), Shambat, Sudan.

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### **Present Address:**

Director,

Desertification and Desert Cultivation Studies Institute

University of Khartoum, Shambat, Sudan

### **ACADEMIC RECORDS:**

1966 - 1972 Elementary school (Sudan)

1972 - 1975 Secondary school (Sudan)

1975 - 1978 High secondary school (Sudan)

1978 - 1983 University of Khartoum (Sudan) (B.Sc., Honors, Agric., Soil Science, Division One)

1987 - 1989 University of Khartoum (Sudan) (M.Sc., Soil Science majoring Soil Fertility)

1997 - 2001 Universiti Putra Malaysia (Malaysia) (Ph.D., Soil organic matter)

### **PRIZES**

1. Sayed Mohamed Abdu Rabu's prize for best final year student in Soil Science (03/10/1983).
2. Silver Medal at 2003 Invention, Research and Innovation Exhibition (PRPI), Universiti Putra Malaysia, 2007, National
3. University of Khartoum Prize for best published articles (two articles) in international Journals for the year of 2007.
4. University of Khartoum Prize for best published articles (10 articles) in international Journals for the years of 2008 and 2009.
5. University of Khartoum prize for distinguished academic and research under 60 years age, The 5<sup>th</sup> Annual Conference of Postgraduate Studies and Scientific Research, Agricultural and Veterinary Research for Sustainable Development, 24-27 February 2014, Friendship Hall Khartoum, Sudan.

### **FELLOWSHIPPS (local and International)**

1. Deutscher Akademischer Austauschdienst (DAAD) scholarship for M.Sc. (Code No. 329 743 022 7 (334 4 00 086) (1987-1989).
2. Netherlands fellowship, International Agricultural Center, IAC, 26<sup>th</sup> Course on vegetable production, August 14 – Nov. 14, 1996, Netherlands.

3. International Soil Tillage Organization Research (ISTRO) Scholarship, 15<sup>th</sup> Conference, Fort Worth, Dallace, Texas, USA, July 2000.
4. Scholarship from the Technical Centre for Agricultural and Rural Development Co-operation (CTA) to attend and participate in a study visit on organic farming in Uganda-Kenya (19/04 – 29/4/2004).
5. Deutscher Akademischer Austauschdienst (DAAD) scholarship (A/03/43587) for study and research visit to Germany (01/07/2004 to 29/09/2004).
6. Netherland Fellowship Program for attending a Refresher course on sustainable use and conservation of agricultural biodiversity, 24 October – 05 November 2005, Addis Ababa, Ethiopia.
7. Deutscher Akademischer Austauschdienst (DAAD) scholarship for Study Trip with final year students (Department of Soil and Environment Sciences, Faculty of agriculture, University of Khartoum invited by the Institute of Organic Agriculture, University of Bonn, Germany (01.09.07-08.09.07).
8. Deutscher Akademischer Austauschdienst (DAAD) scholarship (A/08/03247) for study and research visit to Germany (01/04/2008 to 30/06/2008).
9. Distinguished Fellowship from Arab Fund for Economic and Social Development, Kuwait for one year research stay in phytoremediation of salt-affected soils at Reading University, UK, 02/11/2008-02/11/2009.
10. Deutscher Akademischer Austauschdienst (DAAD) scholarship (A/12/09006) for study and research visit to Germany (02/05/2012 to 31/07/2012).
11. Visiting research Professor Vacancy, Arid Land Research Center, Tottori University, Japan, 01/10/2015 to 30/09/2016.

#### **EMPLOYMENT:**

1984 - 1987 Agricultural engineer (Yemen Arabic Republic)  
 1987 - 1989 M.Sc. student and par time teaching assistant (U of K)  
 1989 - 1990 Agricultural Manager (Yemen Arabic Republic)  
 1990 - 1993 Teaching assistant (staff), U of K.  
 1993 - 1997 Lecturer (U of K)  
 1997 - 2001 Ph.D. student (UPM), Malaysia  
 2001 - 2002 Assistant Professor, Department of Soil & Environment Sciences, (U of K)  
 2002 - 2007 Coordinator of Desert Cultivation and Desertification affected Soils  
 2004 – 2010 Associate Professor  
 2010- to date Professor  
 2007 – 2015 Director of Desertification and Desert Cultivation Studies Institute, U of K.  
 2015-To date Coordinator desert cultivation and desertification affected soils, Desertification and Desert Cultivation Studies Institute.  
 2017- To date Director of Unesco Chair for Desertification, University of Khartoum.

#### **TRAINING**

1. 26<sup>th</sup> International Course on Vegetable Production, Wageningen, the Netherlands, August to November 1996.
2. Study visit to Uganda-Kenya on organic farming, production, certification and marketing on 19<sup>th</sup> –29<sup>th</sup> April, 2004 organized by CTA (Netherlands).
3. Research and study visit, 01/07/2004-29/09/2004 Germany funded by DAAD
4. Refresher Course on Sustainable use and Conservation of Agrobiodiversity, 24 October-5 November, 2005, ILRI, Addis Ababa, Ethiopia.

5. Continual Professional Development Course (CPDC), Khartoum University Center for Advanced Training, Khartoum, Sudan, 15 June 2013.
6. The 4<sup>th</sup> International Course on Sustainable Management of Soil and Water Resources, International Agricultural Training Center (IARTC), Izmir, Turkey, 24 June-05 July, 2013.
7. Planning, Monitoring and Evaluation Course. 5<sup>th</sup>- 8<sup>th</sup> November 2013, Drylands Coordination Group, Oslo, Norway.
8. Desertification and Desert Cultivation Studies, Desert Research Center, Ministry of Agriculture and Land Reclamation, Cairo, Egypt 04-15/05/2014.
9. Gender Training Workshop, International Dry Lands Coordination Group (DCG), Håndverkeren and Conference Center, Rosenkrantzgate 1-6/ December/2014, Oslo, Norway.
10. Desertification and Desert Cultivation Studies, Desert Research Center, Ministry of Agriculture and Land Reclamation, Cairo, Egypt 16-23/08/2015.
11. The 5<sup>th</sup> International Course on Organic Agriculture, International Agricultural Training Center (IARTC), Izmir, Turkey, 21 – 25 November, 2016.

### **TRAINER**

Trainer of Organic farming for candidates from the agricultural sector of the Ministry of Agriculture (11/11/2016- 18/11/2016)

**RESEARCH INTERESTS:** Soil fertility and soil chemistry

**RESEARCH:** Waste management in soil, dryland agriculture, soil fertility and crop residue management, soil organic matter dynamics, stable isotopes, sustainable agriculture, desert cultivation, reclamation of degraded soils, soil conservation etc.

### **VISITING ACADEMIC SCIENTIST**

1. Institute für Landtechnik, Gutfleischstraße 3, 35390 Gießen, Justus-Liebig-Universität, Germany.
2. Institute of Plant Nutrition, Justus-Liebig-Universität, Germany.
3. Institute of Soil Science, Justus-Liebig-Universität, Germany.
4. Institute of Soil Microbiology, Justus-Liebig-Universität, Germany
5. Hemholtz Centre for Environmental Research, UFZ, Halle, Leipzig, Germany.
6. Arid Land Research Center, Tottori University, Japan (08/03-15/03/2015)
7. Visiting Research Professor Vacancy, Arid Land Research Center, Tottori University, Japan, 01/10/2015 – 10/10/2016.

## **VISITING ACADEMIC SCIENTIST (01/04/2008-30/06/20080**

Institute of Plant Nutrition, Justus-Liebig-Universität, Germany

## **VISITING ACADEMIC SCIENTIST (02/11/2008-to date)**

Department of Soil Science, School of Human and Environment Science, Faculty of Science, The Reading University, Reading RG6 6DW, UK.

### **TEACHING ACTIVITIES**

Course Title	University	Class	Duration
Physical Chemistry (Lab)	Khartoum	1 <sup>st</sup> Year	1987-1997
Introduction to Soil Sci. (lab)	Khartoum	1 <sup>st</sup> Year	1987-1997
Geology (Lab)	Khartoum	1 <sup>st</sup> Year	1987-1997
Soil Fertility (Lab)	Khartoum	Final Year	1987-1997
Soil Phys. Cond. & Plant Growth (Lab)	Khartoum	Final Year	1990-1997
Soil Phys. Cond. & Plant Growth (Lab)	Omdurman Isla. Univ.	M.Sc.	1990/1991
Introduction to soil Sci. (Lab)	University of Sudan	2 <sup>nd</sup> Year	1987-1994
Introduction to Soil Sci (Theory)	Khartoum (B.Sc.)	2 <sup>nd</sup> Year	2001-Till
Introduction to Soil Sci (Theory)	Faculty of Animal Production (U of K)	2 <sup>nd</sup> Year	1995/1996
Introduction to soil Sci. (Lab)	Faculty of Animal Production (U of K)	2 <sup>nd</sup> Year	1995/1996
Introduction to Soil Sci (Theory)	Khartoum (Forestry)	2 <sup>nd</sup> Year	2001-2005
Organic Farming	Khkartoum	Final Year	2004-Till
Agroforestry	Khartoum	Final Year	2004-20081
Soil Management	Khartoum	4 <sup>th</sup> Year	2001-2006
Physical Chemistry (Theory)	Khartoum (Diploma)	1 <sup>st</sup> Year	2002-2006
Introduction to Soil Sci (Theory)	Khartoum (diploma)	1 <sup>st</sup> Year	2002-2006
Soil Management (Theory)	Khartoum (Diploma)	1 <sup>st</sup> Year	2002-2006
Organic Farming (Theory)	Khartoum (Diploma)	2 <sup>nd</sup> Year	2003 - 2006
Nuclear techniques in soil, plant and water studies	Khartoum (B.Sc.)	4 <sup>th</sup> Year	2003
Scientific English	Khartoum (Diploma)	2 <sup>nd</sup> year	2003-2006
Field training	Khartoum (B.Sc.)	Final year	2003 - 2006
Combating desertification	Khartoum (M.Sc.)	2005 - Till	
Computer and Statistics	Khartoum (M.Sc.)	2005 - Till	

### **SUPERVISION OF UNDERGRADUATE STUDENTS**

Degree	Major	Supervision	Registration	No. of Students
Final Year Project	Soil	Supervisor	2001/2002	1
Final Year Project	Soil	Supervisor	2002/2003	2
Final Year Project	Soil	Supervisor	2003/2004	2
Final Year Project	Soil	Supervisor	2004/2005	2
Final Year Project	Soil	Supervisor	2005/2006	2
Final Year Project	Soil	Supervisor	2006/2007	2
Undergraduates		Advisor	1992-2012	80

### **ADMINSTRATION ACTIVITIES AND MEMBERSHIPS**

1. Member of the Soil Science Society Malaysia (1997 – till)
2. Staff member of the Department of Soil and Environment Sciences, U of K, (1993-2002)
3. Secretary of the Department of Soil and Environment Sciences (2001-2002).
4. Staff member of the Desertification and Desert Cultivation Studies Institute (2002-till).
5. Member of the scientific counsel of the UNESCO desertification chair (2002-till)
6. Member of the Sudanese Agricultural Counsel (2001-till)
7. Member of the Sudanese Desertification Combating Society, Khartoum State (2001-till).
8. Co-ordinator of the Phenomenon of Desertification Studies Programe (2002-2007).
9. Member of the examiners board of the Faculty of Agriculture, U of K (2001-2002).
10. Member of consultancy committee of the Depart. of Soil and Environment Sciences (2001-Till).
11. Member of the editorial board of the Sudan Journal of Desertification Research (2013-till)
12. Member of the organizing committee of University of Khartoum graduation ceremony (January 18, 2004).
13. Member of the Network Ecological Farming Africa-Sudan (NECOFAS) (2001-till)
14. Member of the Counsel of the Fac. of Agric. , University of Khartoum (2007-till).
15. Member of the National Organic Agricultural Movement of Sudan (NOAMS) (2001-till).
16. Member of the National Standards for Organic Production Systems (2001-till).
17. Member of the Sudanese committee for evaluation of organic fertilizers (2007-till).
18. Member of the University of Khartoum Counsel of Faculty Deans (2007-till).

19. Member of the University of Khartoum Consultant committee (2007-till).
20. Member of the University of Khartoum committee for Emeritus Professor Standards (2008).
21. Member of the Counsel of the Fac. of Animal Production, University of Khartoum (2007-till).
22. Member of the University of Khartoum Academic Senate (2007-till).
23. Member of the Drylands Co-ordination Group (DCG, Norway) (2006-till).
24. Associate editor of Sudan Journal of Desertification Research (2014-till)
25. Vice-Chair of the Third Plenary Assembly of the Global Soil Partnership, 22-24 June, 2015, FAO Headquarters, Rome, Italy.

## CONTRIBUTIONS FOR POSTGRADUATE STUDENTS

### THESIS EXAMINATIONS

No of students	Degree	University
31	M.Sc.	University of Khartoum
2	M.Sc.	El Neileen University

### AWARDED M.Sc. THESIS

No	Name	Title	Graduation
1	Badreldin S. Dawi	Decomposition of nutrient release of different organic residues in soils of western Omdurman.	2006
2	Fatooma Rezig	Nutrient dynamics of decomposing water hyacinth in desert soils.	2006
3	Abutalib Mohamed	Effect of compost and water management on performance of fodder sorghum ( <i>Sorghum bicolor</i> L.) in a sandy soil.	2007
4	Abdelrahim Yousif	Nitrogen mineralization from various manures in saline and non saline soils	2007
5	Amna G. Ali	Sorghum ( <i>Sorghum bicolor</i> L.) performance in amended sandy Soil	2010
6	Hiba Salah	Soil characterization under different long-term tree plantations	2010
7	Nazar O. Salih	Effect of organic fertilizers on yield and quality of forage sorghum ( <i>Sorghum bicolor</i> )	2005
8	Mohamed Hussein	Effect of some selected tree species on soil attributes and yield of millet ( <i>Penesitum typhodium</i> )	2008
9	Azhari A.Ali	Long and short-term effects of conventional tillage on some soil properties of sugar cane grown under Vertisol.	2002
10	Itidal Elmubarak	Stratification of selected soil properties as influenced by mechanical manipulation.	2002
11	Ahlam A. Elbashir	Decomposition and nutrient release from some agroforestry tree litters.	2004
12	Ibrahim A. Ibrahim	Effect of tillage on C and N sequestration in soils.	2004
13	Asia Khidir	Impact of tillage duration under different cropping systems on selected soil properties of irrigated Vertisols, Sudan.	2006
14	Mawahib Musa	Effect of tillage on soil organic matter mineralization	2006
15	Hafiz Ahmed	Potentially mineralizable N as affected by tillage duration: The case of Kenana sugar company.	2008
16	Gassm A. Gassm	Nitrogen mineralization from farm yard manure under three soil types with reference to sowing date of sorghum ( <i>Sorghum bicolor</i> L.)	2009
17	Husam H. Eltaib	Effect of conventional tillage durations in Kenana sugar company on soil physical and chemical properties	
18	Muzamil Elsheikh	Effect of soil types on growth and quality of two varieties of sorghum ( <i>Sorghum bicolor</i> L.): A case study of Khartoum State).	2009
19	Ishraga Gali	Short-term effects of sawdust on some sandy soil properties and on performance of maize ( <i>Zea mays</i> L.)	2011
20	Ensaf A. Adam	Short-term effects of tillage on N mineralization from farm yard manure in semi-arid tropical Vertisol	2012
21	Asma Gameel	Use of wood shavings for water management of sandy soils	2014
22	Ishraga Mohamed	Effect of Tillage on Some Soil attributes of pastureland	2014
23	Mahgob Gelaleldin	Changes in Physico-Chemical Properties of A desert Soil under Different Long-term Land Use Systems	2015

### M.Sc. THESIS (With Remarks)

24	A/Moniem A/Moula	Sand dune stabilization by mesquite	Waiting exam
25	Mohamed Osman	Role of recycling of composted municipal waste for production of fodder sorghum in degraded soil.	Waiting exam
26	Mamdouh Sharf	Response of foddersSorghum to composted sewage sludge under two water regimes	2016
27	Sulafa Elsamani	Dcomposition and N, K, K release and potentially mineralizable N from three composts as influenced by sand stabilization	2016
28	Khalfalla Mohamed Ali	Sodium removal during phytoremediation of calcareous salt-affected soils through H-proton release from some selected legumes.	2017
29	Rayan Elsididig	Sandy soil properties under different plant cover types, White Nile State, Sudan	2017
30	Mona Abdalla Mustafa	Preliminary Studies on Chicken Bed Biochar Use as Soil Amendment	Experiment
31	Mona Hussein Hammed	Role of Forests and or trees in influencing soil physical and chemical properties in Arid-Land zones: Case Study of Aid omdom forest, Eastern Nile, Khartoum state.	Writting
32	Mohamed A. M. Alshween	Soil quality as influenced by petroleum exploration and crude production, west Darfur State	Experiment
33	Haytham E. I. Mustafa	Assessment of treated waste water from oil refinery on soil , fruit and tree quality, El Obied North Kordofan State, Sudan	Writting
34	Nahla Abdelwahab Salim	Use of biochar in alleviation of secondary salinization	Experiment

### PhD THESIS

1	Nazar O. Salih	Recovery of Nitrogen from Wheat Residue and Inorganic Fertilizer in a Wheat-Groundnut Rotation System of a Sandy Soil	Awarded
2	Fatooma Rezig	The contribution of some organic wastes in sustainable production of guar- wheat rotation system in a nutrient poor sandy soil	Awarded
3	Abdelnasir I.A. Hano	Assessment of Impacts of Changes in Land Use Patterns on Land Degradation/Desertification in the Semi- arid Zone of White Nile State, Sudan, by Means of Remote Sensing and GIS ( <a href="#">Technische Universität Dresden, Germany</a> )	Awarded
4	Badreldin S. Dawi	Assessment of clay based, recycled zeolite and sewage sludge ameliorants for desert cultivation	Awarded
5	Ibrahim A. Osman	Utilization of composted baggase, waterhaycynth and banana wastes in reclamation of desert soils.	Waiting Exam
6	A/Rahim Yousif	Effect of vermicomposted and composted organic manures on growth, yield and yield components of sorghum ( <i>Sorghum bicolor</i> (L.) Moench) in Sandy soil of North Kordofan State	Writing
7	Howida Osman	Yield and quality parameters of organic and inorganic tomato ( <i>Solanum lycopersicum</i> ) and sweet pepper ( <i>Capsicum annuum</i> ) using four commercial composts.	Experiment on going
8	Afaf Ahmed Gubara	Role of Higlieeg ( <i>Balanites aegyptiaca</i> L. Del.) in restoring land degradation and development of rural livelihood, Nuba Mountains, Sudan	Experiment on going
9	Majdaldin Rahamtallah Abualgasim Mohammed	Mapping and assessing impacts of land use and land cover change by means of advanced remote sensing approach: A case Study of Gash Agricultural Scheme, Eastern Sudan (( <a href="#">Technische Universität Dresden, Germany</a> ))	Awarded

## PUBLICATIONS THESIS

1. Effect of soil type, salinity and manuring on the production of okra (*Abelmoschus esculentus* L.) and beans (*Phaseolous vulgaris* L.). M.Sc. Thesis, University of Khartoum, Sudan, 1989.
2. The contribution of crop residues for the sustainable production of maize and groundnut in a crop rotation system (Ph.D.) Thesis, Universiti Putra Malaysia, 2001.

## REFREED JOURNALS

1. Eltilib A. M. A., A.M.Ali and **Mubarak A. R.** 1993. Effect of chicken manure and salinity on growth and leaf N, P and K content of okra (*Abelmoschus esculentus*) grown on two soil types. *University of Khartoum Journal of Agricultural Science* **1: 16-36**.
2. H. M. Abdelmagid, **Mubarak. A. Abdalla**, A. M. A. Eltilib and A. M. Ali. 1996. Poultry manure as an ameliorative fertilizer for salinized soils sown to snap beans in a semi-arid environment. *Egyptian Journal of Applied Science* **11: 199-210**. ISSN: 1110-1571
3. **Mubarak A. R.**, Rosenani A.B., Zauyah S. D and Anuar A. R. 1999. Decomposition and nutrient release from maize (*Zea mays* L.) residues and N uptake by groundnut (*Arachis hypogaea*) in a crop rotation system. *Malaysian Journal of Soil Science* **1394-7990 3: 93-107**.
4. **Mubarak A. R.**, Rosenani A. B., Zauyah S. D. and Anuar A. R. 2001. Balance of applied <sup>15</sup>N labelled ammonium sulfate by maize (*Zea mays* L.) in the humid tropics. *Japanese Journal of Tropical Agriculture* ISSN **0021-5260. 45: 176-180**.
5. **Mubarak A. R.**, Rosenani A. B., Zauyah S. D. and Anuar A. R. 2001. Nitrogen mineralization in tropical soils amended with crop residues. *Tropical Agriculture (Trinidad)* **78: 165-173**.
6. **Mubarak A. R.**, Rosenani A. B., Zauyah S. D. and Anuar A. R. 2003. Effect of incorporation of crop residues on a maize – groundnut sequence in the humid tropics. II: Soil properties. *Journal of Plant Nutrition* **26: 2343-2364**. ISSN: 0190-4167. Impact factor 0.64.
7. **Mubarak A. R.**, Rosenani A. B., Zauyah S. D. and Anuar. A. R. 2003. Effect of incorporation of crop residues on a maize – groundnut sequence in the humid tropics. I: Yield and nutrient uptake. *Journal of Plant Nutrition* **26: 1841 - 1858**. ISSN: 0190-4167. Impact factor 0.64
8. **Mubarak A. R.**, Rosenani. A. B., Zauyah S. D. and Anuar A. R. 2003. Recovery of <sup>15</sup>N from maize residues and inorganic fertilizer in a maize – groundnut rotation system. *Communications in Soil Science and Plant Analysis* **34: 2375-2394**. ISSN 0010-3624. Impact factor 0.505
9. **Mubarak A. R.**, Rosenani A. B., Zauyah S. D. and Anuar A. R. 2002. Decomposition and nutrient release of maize (*Zea mays* L.) stover and groundnut (*Arachis hypogaea*) haulm under field tropical conditions of Malaysia. *Communications in Soil Science and Plant Analysis* **33: 609-622**. ISSN 0010-3624. Impact factor 0.505.
10. **Mubarak A. R.** and Rosenani A. B. 2003. Soil organic matter fractions in the humid tropics as influenced by application of crop residues. *Communications in Soil Science and Plant Analysis* **34: 933-943**. ISSN 0010-3624. Impact factor 0.505.
11. Abdemoniem M.A. ElTilib, **Mubarak A. Abdalla** and Mahgoub Abdelhafeez. 2003. Wheat response to partially acidulated phosphate rock, triple super phosphate and their combinations in the semi-arid tropics of the Sudan. *Gezira Journal of Agricultural Science* **1:11-21**.
12. Rosenani, A.B., A.R. **Mubarak**, S. Zauyah. Recycling of crop residues for sustainable crop production in a maize-groundnut rotation system. 2003. In: *Management of crop residues for sustainable crop production. Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture* IAEA-TECDOC-1354 pages 3-22.

13. **Mubarak Abdelrahman Abdalla** and Rosenani Abu Bakar. 2004. The effect of drying temperature on nitrogen mineralization from above and below ground crop residues. *University of Khartoum Journal of Agricultural Science* **12**: 47-64.
14. **Mubarak Abdelrahman Abdalla**, Omer Mohamed E. Elshami. and Eatidal A. Elmubarak, 2004. Stratification of Selected Soil Properties as Influenced by Mechanical Manipulation. *University of Khartoum Journal of Agricultural Science* **12**: 415-428.
15. **Mubarak, A. R.**, Elshami, O. M. E. and Azhari, A.A. 2005. Long and Short -Term Effects of Conventional Tillage on a Vertisol Properties Under Sugar Cane Plantation. *Soil and Tillage Research* **84**: 1-6. ISSN: 0167-1987 Impact Factor: 2.910.
16. **Mubarak Abdelrahman Abdalla**, Nazar Omer Salih, Ali Ahmed Hassabo and Ahmed Gofoon Mahala. 2007. Effect of application of organic amendments on quality of forage sorghum (*Sorghum bicolor.L*) in the semi-arid tropics. *Archieves of Agronomy and Soil Science* **53**: 529-538. ISSN: 0365-0340
17. **Mubarak, A. R.**, A. A. Elbashir, L. A. Elamin, D. M. A. Daldoum, D. Steffens and G. Benckiser. 2008. Decomposition and nutrient release from litter fall in the semi-arid tropics of Sudan. *Communications in Soil Science and Plant Analysis* **39**: 2359-2377.
18. **Mubarak, A.R.**, Fattoma A.M. Rezik and Afiah S. A. 2008. Use of water hyacinth (*Eichhornia crassipes*) in amelioration of a sandy soil. *Arab Universities Journal of Agricultural Sciences* **16**: 213-224.
19. **Mubarak, A.R.**, Elshami, O.M.E. and Hamid, F.A. 2008. Carbon and nitrogen stocks of a long-term cropping systems on an irrigated and rain-fed Vertisols in the semi-arid tropics of Sudan. *Malaysian Journal of Soil Science* **12**: 61-76.
20. **Mubarak, A.R.**, O.M.E. Elshami, H. Ahmed, H.H. Eltaib, A.R., A.M.A. Eltilib, A.B. Saeed and D. Steffens. 2008. Effects of sugarcane (*Saccharum officinarum*) cultivation on soil quality in the semi-arid tropics of Sudan. *International Journal of Natural and Applied Sciences* **4** (4): 376-382.
21. **Mubarak Abdelrahman Abdalla** and Badr Eldin Siddig Dawi. 2009. Decomposition and nutrient release from various tree litters in a sandy soil of a semi-arid tropics. *Sudan Journal of Desertification Research* **1** (1): 36-55.
22. **Mubarak, A.R.**, D. M. Ahmed, and A. M. Sayed. 2009. A Note on the Influence of Leaf Extracts of Nine Tree Species on Seed Germination, Radicle and Hypocotyl Elongation of Maize and Sorghum. *International Journal of Agriculture and Biology* **11** (3):340-342.
23. **Mubarak, A.R.**, O.M.E. Elshami, M. M. A. Abdelseed and D. Steffens. 2009. Short-term contribution of mineral N from soil organic matter during the rainy season in a vertisol of the semi-arid tropics of Sudan. *International Journal of Agriculture and Biology* **11** (3): 336-339.
24. Yousif, A. M., **Mubarak, A.R.** 2009. Variations in Nitrogen mineralization from different manures in semi-arid tropics of Sudan with reference to salt-affected soils. *International Journal of Agriculture and Biology* **11** (5): 515-520.
25. Daldoum, D.M.A., **A.R. Mubarak** and A.A. Elbashir. 2010. Leaf litter decomposition and nutrient release pattern of three tree species under semi-arid conditions. *Journal of Natural Resources and Environmental Studies* **5**: 75-88.
26. **Mubarak A.R.**, Omaima.E. Ragab, Amal A. Ali And Nemat.E. Hamed. 2009. Short-term studies on use of organic amendments for amelioration of a sandy soil. *African Journal of Agricultural Research* **4** (7): 621-627. ISSN 1991- 637X. Impact factor 0.55. SNIP 0.9
27. **Mubarak A. Abdalla** and U. Langer. 2009. Assay of selected soil enzymes activities in irrigated and rain-fed Vertisols of the semi-arid tropics of Sudan. *International Journal of Soil Science* **4** (3): 67-79. ISSN: 18164978
28. **Mubarak, A.R.**, Eshraga A. M. Gali , Asma G. Mohamed, Steffens D. and Abdelkarim H. Awadelkarim. 2010. Nitrogen mineralization from five manures as influenced by chemical



- composition and soil type. *Communications in Soil Science and Plant Analysis* **41 (16): 1903-1920**. ISSN 0010-3624. Impact factor 0.505.
29. **Mubarak, A.R.**, O.M.E. Elshami and Ishraga A. Mohmmmed. 2009. Effect of cultivation on some soil attributes of a long-term pastoral land in the semi-arid tropics of Sudan. *Research Journal of Agriculture and Biological Sciences* **5(5): 794-797**. ISSN (printed): 1816-1561. ISSN (electronic): 1819-5415.
  30. **Mubarak, A. R.**, O.M.E. Elshami and Ensaf A. Adam. 2010. Short-term effects of tillage on N mineralization from farm yard manure in semi-arid tropical Vertisol. *Research Journal of Agriculture and Biological Sciences* **6 (2): 157-160**. ISSN (printed): 1816-1561. ISSN (electronic): 1819-5415.
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  33. Amna Jubara Ali and **Mubarak Abdelrahman Abdalla**. 2012. Performance of sorghum (*Sorghum bicolor* L.) in amended sandy soil. *Journal of Disaster Management* Vol 1: 53-72.
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  42. Rezig, F.A.M., Elhadi, E.A. and **Mubarak**, A.R. 2014. Decomposition and nutrient release pattern of wheat (*Triticum aestivum*) residues under different treatments in desert field conditions of Sudan. *International Journal of Recycling Organic Wastes in Agriculture* Vol 3 (3): 1-10.

43. Abutalib Balla Guma Mohamed and **Mubarak** Abdelrahman Abdalla. 2014. Compost economizes use of irrigation water for sorghum production (*Sorghum bicolor*) in a sandy soil. *International Journal of Sudan Research* 2 (4): 127-140.
44. Elhadi. E.A., A.R. **Mubarak**, F.A. Rezig. 2016. Effects of organic amendments on sand dune fixation. *International Journal of Recycling Organic Wastes in Agriculture* 5: 1-8. DOI 10.1007/s40093-015-0111-5.
45. **Mubarak** Abdelrahman Abdalla. 2015. Regional Assessment of Soil Changes in the Near East and North Africa. *In: Status of the World's Soil Resources (SWSR)- Main Report*, FAO and ITPS. Food and Agriculture Organization of the United Nations and Intergovernmental Technical Panel on Soils, Rome, Italy 2015. 399-441. Pages 608.
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52. **Mubarak**, Abdelrahman Abdalla, Takeshi Taniguchi, Abdelkarim Hassan Awad Elkarim, Tsuneyoshi Endo and Norikazu Yamanaka. 2017. Phytoremediation of calcareous saline-sodic soils with mesquite (*Prosopis glandulosa*). *Acta Agriculturae Scandinavica, Section B - Plant Soil Science Vol 67* (4): 352-361.
53. Fatoma Ali Mohammed Rezig, Elsadig Agabna Elhadi, **Mubarak** Abdelrahman Abdalla. 2016. Decompostion of wheat and guar residues and nutrients release in litterbag. *Environment and Natural Resources International Journal* 1: 23-32.

#### **SUBMITTED ARTICLES**

1. Dawi, B. S.I., **Mubarak**, A. R, Eltilib, A.M.A` Elhadi, A.A., Rezig, F.A.M. and Norikazu Yamanaka. Use of three Organic Amendments for Cultivation of Grain Sorghum (*Sorghum bicolor* L.) and Soil Properties Improvement under Desert Conditions. Submitted to [\*Land Degradation and Development\*](#)
2. Rezig, F.A.M., E.A. Elhadi, N. Yamanaka, T. Takeshi and A.R. **Mubarak**. Decomposition and nutrient release pattern of Guar (*Cyamopsis tetragonoloba*) residues treated with organic and inorganic fertilizers in desert field conditions of Sudan. Submitted to [\*Agricultural Research\*](#)

3. **Mubarak A. Abdalla, Elke Schulz, François Buscot, Jessica L. M. Gutknecht.** Soil properties and microbial functional potentials under varied durations of sugarcane production. Submitted to *Pedobiologia*
4. **Mubarak, A.R. and F. A. A. Elhassan.** Laboratory Assessment of Field and Vegetable Crops for Allelopathic Effects on Each Other. Submitted to *International J. of Agric. Research*.

#### ARTICLES UNDER PREPARATION

1. Yamano Hiromi, Mubarak A. Abdalla, Isam Ali Mohamed Ahmed Ali, Sulieman Hammad Naser Ali, Taniguchi Takeshi, Isam Ali Mohamed Ahmed Ali, Yamanaka Norikazu and Yamamoto Fukuju. Soil solution - plant element and osmolytes relationship, in rhizosphere of *Prosopis glandulosa* grown in salt affected soils.
2. Mubarak Abedlrahman Abdalla, Taniguchi Takeshi, Awad Elkarim, A.H and Norikazu Yamanaka. Phytoremediation of calcareous saline-sodic soils with mesquite (*Prosopis glandulosa*).
3. Mubarak Abedlrahman Abdalla, Tsuneyoshi Endo, Hiromi Yamana, Fukuju Yamamoto, Taniguchi Takeshi and Norikazu Yamanaka. Prediction of exchangeable sodium percentage from soil paste and soil: water ratios.

#### PROCEEDINGS

1. **Mubarak A. R.,** Rosenani A. B., Zauyah S. D. and Anuar A. R. Short-term effect of maize residue incorporation on groundnut performance in a crop rotation system. **Proceedings of Soil Science Conference of Malaysia, Mint Hotel, Kuala Lumpur, Malaysia, 1998.** pp. 180-198.
2. **Mubarak A. R.,** Rosenani A. B., Zauyah S. D. and Anuar A. R. Decomposition and nutrient release of maize and groundnut residues in litterbags under Malaysian field conditions. **Proceedings of Soil Science Conference of Malaysia, Allison Klana Resort, Seremban, April 20-21 (1999)** pp: 57-66.
3. **Mubarak A. R.,** Rosenani A. B., Zauyah S. D. and Anuar A. R. Recycling of crop residues for sustainable crop production in a maize – groundnut crop rotation system. **Proceedings of Soil Science Conference of Malaysia, Kota Kinabalu, Sabah, 17-20 April, 2001.**
4. **Mubarak A. R.,** Rosenani A. B., Zauyah S. D. and Anuar A. R. The role of crop residues in sustaining yields of maize (*Zea mays* L.) and groundnut (*Arachis hypogaea*) in the humid tropics of Malaysia. **Proceedings of the 15<sup>th</sup> Conference of the International Soil Tillage Research Organization (ISTRO), July 2-7 (2000), Fort Worth, Dallas, USA.**
5. **Mubarak A. R.,** Rosenani A. B., Zauyah S. D. and Anuar A. R. Nitrogen mineralization from above and below ground crop residues. **Proceedings of the 3<sup>rd</sup> International Conference on Land Degradation and Meeting of the IUSS Submission C-Soil and Water Conservation. 17-21 Sept., 2001- Rio de Janeiro-Brazil.**
6. **Mubarak A. R.,** Rosenani A. B., Zauyah S. D. and Anuar A. R. Nitrogen mineralization from crop residues in selected tropical soils. **Proceedings of the 3<sup>rd</sup> International Conference on Land Degradation and Meeting of the IUSS Submission C-Soil and Water Conservation. 17-21 Sept., 2001- Rio de Janeiro-Brazil.**
7. **Mubarak, A. R.,** Ghada. A. A. and Omer M. E. El-Shami. Soil organic matter fractions in a Sudanese Vertisols: Impact of tillage and cropping sequence. **Proceedings of the 16<sup>th</sup> Conference of the International Soil Tillage Research Organization (ISTRO), July 13-17 (2003), Brisbane, Australia, 13-17 July, 2003.**
8. **Mubarak, A. R.,** Omer, M. E. Elshami and Azhari, A. Long and Short -Term Effects of Conventional Tillage on a Vertisol Properties. **Proceedings of the 16<sup>th</sup> Conference of the International Soil Tillage Research Organization (ISTRO), July 13-17 (2003), Brisbane, Australia, 13-17 July, 2003.**

9. **Mubarak, A. R.**, Omer; M. E. Elshami and Eatidal, A. E. Stratification ratios of some soil quality indices as influenced by soil mechanical manipulation in the dry tropics. **Proceedings of the 16<sup>th</sup> Conference of the International Soil Tillage Research Organization (ISTRO), July 13-17 (2003), Brisbane, Australia, 13-17 July, 2003.**
10. **Mubarak, A.R.**, Salih, E.M. and Hussein, A. O. Proposed Plan of Action for Research on Desertification: Khartoum State. **Proceedings of the National Forum of Scientific Research on Desertification. Al Sharga Hall, University of Khartoum, March 16 – 18 (2004), Khartoum, Sudan, 2004. (In Arabic)**
11. **Mubarak, A.R.**, Ibrahim, A. I. and Elshami, O.M.E. Topsoil Carbon and Nitrogen Storage under Different Tillage Systems in the Arid-Tropics of Sudan, **Proceedings of CIGR International Conference in Beijing Oct. 11 – 14, 2004 Beijing, P.R. China.**
12. **Mubarak, A.R.** and Elshafie, H.A. Organic agriculture and alternatives of chemical usage. **Campaign of correct usage of agricultural chemicals, Ministry of Agric., Sudan, 3-15/3/2004 (In Arabic).**
13. **Mubarak, A.R.** Managing of agricultural residues in organic farming. Blue Nile State, Sept. 2004 (In Arabic).
14. **Mubarak, A.R.** O.M.E. Elshami. F. A. Hamid. D. Steffens .G. Benckiser, Awadelkarim, A.H. Long-term cropping systems effects on an irrigated and rain-fed Vertisol quality in the semi-arid tropics of Sudan: I. Estimates of Carbon and Nitrogen Stocks. **Proceedings of the International Conference on Human Impacts on Soil Quality Attributes in Arid and semi-arid Regions, Isfahan, 12-16 Sept., 2005, Iran**
15. **Mubarak, A.R.** and Hussein, A.O. 2005. Desertification and combating in Khartoum State. Khartoum State Workshop on desertification, 22-24 November, 2005, Khartoum, Sudan.
16. **Mubarak Abdelrahman Abdalla**, Niemat Elbashir, Lina Elamin, Daldoum Mohamed Ahmed, Dielrich Steffens and Georg Benckiser. Decomposition and Nutrient Release from Selected Agroforestry Tree Litters in the Semi-Arid Tropics of Sudan. **Proceedings of the International Symposium on Drylands Ecology and Human Security, December 4 – 7, Dubai, UAE, 2006.**
17. **Mubarak Abdelrahman Abdalla**, Badreldin Ibrahim Siddig Dawi. Decomposition and Nutrient Release of Different Organic Residues in Sandy Soil of Western Omdurman. **Proceedings of the International Symposium on Drylands Ecology and Human Security, December 4 – 7, Dubai, UAE, 2006.**
18. **Mubarak, A.R.** and Mohamed, F.A. Can Quality of Arid Lands be Improved by Incorporation of Water Hyacinth: The Case of Sudan. **Proceedings of the International Symposium on Drylands Ecology and Human Security, December 4 – 7, Dubai, UAE, 2006.**
19. **Mubarak, A.R.;** Langer, U. 2007. Assay of selected soil enzymes activities in irrigated and rain-fed Vertisols of the semi-arid tropics of Sudan. **8<sup>th</sup> African Crop Science Society, 27-31 October, 2007, El-Minia, Egypt, 1599-1608.**
20. **Mubarak, A.R.** and El Amin, A.E. 2007. Sudanese potentials of organic fertilizers. Sudanese Standards and Meterology Organization (SSMO) Conference, October 3-5, 2007. (In Arabic).
21. **Mubarak, A.R.**, M.H. Abdalla and S. Nortcliff. 2009. Millet (*Pennisetum typhoides*) yield and selected soil attributes as influenced by some tree types of the semi-arid tropics of Sudan. **Technology and management to ensure sustainable agriculture, agro-systems, forestry and safety, 17-19 June 2009, Reggio Calabria – Italy, "Mediterranea" University, Dept. DISTAFA.**
22. **Mubarak A. Abdalla**, Musnad, H. A. And Ali, E.E. 2006. Strategies of combating desertification. Unesco Training programme, DADCSI- Shambat, 16-25/9/2006, Sudan (In Arabic).

23. **Mubarak, A.R.** and Ali, A.G. Use of clay based and sewage sludge ameliorants for desert cultivation. **Proceedings of " The Role of Scientific Research in Combating Desertification and Sand Dune Stabilization"**, Sabha, Tripoli, **Lybia**, 21-24, 06, 2010.
24. **Mubarak, A.R.;** Nortcliff, S. 2010. Calcium carbonate solubilisation through H-proton release from some legumes grown in calcareous saline-sodic soils. Conference of Graduate and Scientific Research, Scientific Research – Pillar of Civilization Development, Friendship Hall, 27<sup>th</sup> February – 2<sup>nd</sup> March 2010, Khartoum, Sudan.
25. Awadelkarim, A.H., **Mubarak, A.R.** and Gassm Elsyied, A.G. 2011. Time of sowing sorghum (*Sorghum bicolor*) as affected by nitrogen mineralization from FYM manure in three soil types. **Tropentag** October, 5-7, 2011, Bonn, **Germany**.
26. Rezig, F. A. M., A.R. **Mubarak**, E.A. Elhadi. 2012. Effect of incorporation of some wastes on a wheat- guar rotation system on soil physical and chemical properties. **The 1<sup>st</sup> International & 4<sup>th</sup> National Congress on Recycling of Organic Waste in Agriculture (CROWA)**, Islamic Azad University, Khorasgan Branch, Isfahan, **IRAN**, 26- 27 April, 2012.
27. Rezig, F. A. M., A.R. **Mubarak**, E.A. Elhadi. 2012. Effect of incorporation of some wastes on a wheat- guar rotation system on yield and nutrients uptake. **The 1<sup>st</sup> International & 4<sup>th</sup> National Congress on Recycling of Organic Waste in Agriculture (CROWA)**, Islamic Azad University, Khorasgan Branch, Isfahan, **IRAN**, 26- 27 April, 2012.
28. Nazar Omer Hassan Salih, **Mubarak** Abdelrahman Abdalla, Ali Ahmed Hassabo. 2012. Fate of Fertiliser N Applied to A Guar-wheat Rotation System as Influenced by Crop Residue Incorporation in A Semi-arid Vertisol. **Tropentag**, September 19-21, 2012, Göttingen-Kassel/Witzenhausen, **Germany**.
29. Elsadig Elhadi, **Mubarak** Abdalla, Fatoma Rezig. 2012. Improvement of Sand Dune Properties with Organic Waste Application for Sand Dune Fixation. **Tropentag**, September 19-21, 2012, Göttingen-Kassel/Witzenhausen, **Germany**.
30. Fatoma Rezig, Elsadig Elhadi, **Mubarak** Abdalla. 2012. Soil Organic Matter Fractions in Desert Tropics as Influenced by Application of Organic Residues. **Tropentag**, September 19-21, 2012, Göttingen-Kassel/Witzenhausen, **Germany**.
31. **Mubarak** Abdelrahman Abdalla, Abdelmoniem Ahmed Hassan. Use of composted sewage sludge and clay based ameliorant for production of wheat (*Triticum aestivum*) in desert soils. United Nations Convention to Combat Desertification (UNCCD) 2<sup>nd</sup> Scientific Conference: Economic assessment of desertification, sustainable land management and resilience of arid, semi-arid and dry sub-humid areas. 9-12 April 2013 - Bonn, **Germany**.
32. Badreldin Siddig Ibrahim, **Mubarak** Abdelrahman Abdalla. Production of grain sorghum (*Sorghum bicolor*) in sandy soils. United Nations Convention to Combat Desertification (UNCCD) 2<sup>nd</sup> Scientific Conference: Economic assessment of desertification, sustainable land management and resilience of arid, semi-arid and dry sub-humid areas. 9-12 April 2013 - Bonn, **Germany**.
33. Fatooma Ali Mohamed Rezig, NazarR Omer Hassan Salih, **Mubarak** Abdalla, Elsadig Elhadi, Ali Ahmed Hassabo. Nitrogen Availability during Decomposition of Wheat (*Triticum aestivum*) and Guar Crop Residues (*Cymopsis tetragonoloba*) in a Desert Soil. **Tropentag 2013 Agricultural development within the rural-urban continuum** September 17 - 19, 2013, Stuttgart-Hohenheim, **Germany**.
34. **Mubarak**, A.R., Elhadi, E.A. and Rezig, F.A.M. Wastes management strategies for desert cultivation. **Drylands Coordination Group Workshop**, El Damar, River Nile State 17, 12, 2013, Sudan.
35. Elhadi, E.A., **Mubarak**, Osman, I.A. and Rezig, F.A.M. Compost preparation from some organic sources. **Drylands Coordination Group Workshop**, El Damar, River Nile State 17, 12, 2013, Sudan.
36. Osman, I.A., **Mubarak**, A.R., Elhadi, E.A. Effects of some compost on wheat grown in a desert soil. **Drylands Coordination Group Workshop**, El Damar, River Nile State 17, 12, 2013, Sudan.

37. Ibrahim Ali Osman Eltaib, **Mubarak** Abdelrahman Abdalla, Mustafa Mohamed Ali Elballa, Elsadig Agbna Elhadi and Fatoma A.M. Rezig. Utilization of Composted Baggase, Water Hyacinth and Banana Wastes in Reclamation of Desert Soils. I Effects on Yield and Nutrients Uptake. The 5<sup>th</sup> Annual Conference of Postgraduate Studies and Scientific Research, Agricultural and Veterinary Studies 24-27/02/2014 Friendship Hall, Khartoum, Sudan.
38. Ibrahim Saeed Ibrahim, **Mubarak** Abdelrahman Abdalla and Salaheldin Goda Hussein. Sandy soils: Extent, distribution and management for sustainable use. .A National Symposium on: Cultivation of deserts and desertification affected lands “Maximizing biological production in deserts and desertification affected lands”. UNESCO Chair of Desertification, Al-Sharga Hall, University of Khartoum, Khartoum 16 and June, 2015, Sudan.
39. Elhadi, E.A., Rezig, F.A.M. and **Mubarak**, A.R. 2015. Variations in Nitrogen Mineralization from Water Hyacinth (*Eichhornia crassipes*) on Salt-Affected Soils. The 10<sup>th</sup> Scientific Conference of the National Centre for Research “Research and Innovation Towards Knowledge-Based Economy” 1-3 December 2015, Friendship Hall Khartoum, Sudan.
40. Rayan Elsiddig Eltaib, Yamanaka Norikazu and **Mubarak** Abdelrahman Abdalla. Sandy Soil Properties under Different Plant Cover Types in Drylands, Sudan. 18<sup>th</sup> International Conference on Food Technology and Agricultural Engineering, Narita Tobu Hotel, Airport, 320-1 Tokyo, Narita-Shi, 26-27, 2016.
41. Elhadi, E.A., Rezig, F.A.M. and **Mubarak**, A.R. 2016. Litter Decomposition and Nutrient Release from Three Tree species in Sand Dunes in the Dry Tropics of Sudan. 2<sup>nd</sup> International Conference On Agriculture, Food Security & Biotechnology October 17<sup>th</sup> – 18<sup>th</sup>, 2016 Khartoum – Sudan.
42. **Mubarak** Abdelrahman Abdalla. 2015. Is H-proton release during N-fixation from some tree and shrub legumes can effectively ameliorate calcareous sodic soils. Annual Report, Fiscal Year 2015, Arid Land Research Center, Tottori University, Japan.

### **International Assignments**

**Mubarak Abdelrahman Abdalla.** 2014. Assessment of Soil Changes in the Near East and North Africa (NENA) Region, World Soil Report, FAO 214.

### **Text Books**

**Mubarak**, A.R., Musnad, H.A. and Ali, E. E. 2007. Combating Desertification. UNESCO Chair of Desertification, University of Khartoum Printing Press, 2007.

**Mubarak**, A.R., Musnad, H.A. and Ali, E.E. 2009 Combating Desertification (In Arabic).

**Mubarak, A.R.** Assessment of Soil Changes in the Near East and North Africa (NENA) Region. World Soil Report. Global Soil Partnership, FAO, 2014.

### **MEEETINGS AND SEMINARS**

1. Recycling of crop residues for sustainable crop production in a maize – groundnut rotation system (A. B. Rosenani, A.R. **Mubarak** and S. Zauyah). IAEA meetings on Techniques in studies on the management of organic matter and nutrient turnover for increased sustainable agricultural production and environmental reservation. 1<sup>st</sup> meeting, Sept. 1997, Vienna, **Austria**.
2. Recycling of crop residues for sustainable crop production in maize – groundnut rotation system (A. B. Rosenani, A.R. **Mubarak** and S. Zauyah). IAEA meetings on Techniques in studies on the management of organic matter and nutrient turnover for increased sustainable agricultural production and environmental reservation. 2<sup>nd</sup> meeting, Sept. 1998, Vienna, **Austria**.

3. Recycling of crop residues for sustainable crop production in a maize – groundnut rotation system (A. B. Rosenani, A.R. **Mubarak** and S. Zauyah). IAEA meetings on Techniques in studies on the management of organic matter and nutrient turnover for increased sustainable agricultural production and environmental reservation. 3<sup>rd</sup> meeting, 6-10, Sept. 1999, Rabat, **Moroco**.
4. Recycling of crop residues for sustainable crop production in a maize – groundnut rotation system (A. B. Rosenani, A.R. **Mubarak** and S. Zauyah). IAEA meetings on Techniques in studies on the management of organic matter and nutrient turnover for increased sustainable agricultural production and environmental reservation. 4<sup>th</sup> meeting, March. 2000, Mines, **Malaysia**
5. Seminar on Agriculture and Food Security in developing countries: Afro-Asian working graduates, Mahatma-Ghandi-Haus, Theodor-Heuss-, Gottingen 17-19 Sept. 2004, and Germany.
6. International Seminar of the Drylands Coordination group (DCG), Mali, 31/08-05/0.9/2008)
7. The 5<sup>th</sup> Agricultural Research Corporation Meeting: Strategic Priority in Soil Information Package for better land use care in east and southern Africa, Wad Medani, Sudan, 21-25/10/2009.
8. International Seminar of the Drylands Coordination group (DCG), Mali, 31/08-05/0.9/2008)
9. International Seminar of Drland Coordination Group (DCG), 01-06/12/2014, Oslo, Norway

#### **REVIEWR FOR INTERNATIONAL JOURNALS: Samples**

No	Article title	Journal
1	Marine benthic macrophytes as possible nitrogen source in agriculture	Journal of Environmental Management
2	Tillage and planting methods on soil properties, yield, tuber rot and nutrient uptake of cassava grown in a Vertisol in India	Soil and Tillage Research
3	The impact of long and short term sugarcane cultivation on soil properties and classification in Southwest of Iran	Soil and Tillage Research

#### **Reviewer for National Journals**

More than 15

#### **External examiner**

1. PhD student (Abdelbasir Ibrahim Ali Hano) under the title of: Assessment of impacts of changes in land use patterns on land degradation/desertification in the semi-arid zones of White Nile State, Sudan, by means of remote sensing and GIS, University of Dresden, Germany 18/12/2013.
2. PhD student (Majdaldin Rahamtallah Abualgasim Mohammed) under the title of: Mapping and assessing impacts of land use and land cover change by means of advanced remote sensing approach: A case Study of Gash Agricultural Scheme, Eastern Sudan, University of Dresden, Germany 27/4/2017.

#### **INTERNATIONAL RESEARCH LINKS**

1. The use of <sup>15</sup>N Tracing techniques in studies of soil organic matter, International Atomic Energy Agency (IAEA), Vienna, Austria (completed).
2. Recycling of crop residues for sustainable crop production (IRPA), Malaysia (completed).

## **OTHER ACADEMIC ACTIVITIES**

1. Submission of a proposal concerned with improvement of University of Khartoum Library services.
2. Submission of a proposal concerned with adoption of a new plan for M.Sc. and Ph.D students seminars.
3. Submission of a proposal for organizing the computer unit of the Institute of desertification studies and desert cultivation.
4. Reviewer of articles submitted to Jurnal of Environmental Management, USA.
5. Reviewer of articles submitted to Sudan Silva Journal

## **OVERSEAS PROJECT FOR DONATION TO U of K.:**

Free equipment to the laboratory of the Institute of Desertification and Desert Cultivation Studies from submitted project at a cost of 14267 Euro funded by the Academy of Science for the developing word.

## **FUNDED PROJECTS AS PRINCIPAL INVESTIGATOR:**

2. Recovery of Nitrogen from Guar Residue and Inorganic Fertilizer in a Guar - Wheat-Rotation System using N<sup>15</sup> Techniques. (34 000 000 SDG, Ministry of Higher Education and Scientific Research, 2006).
3. Recovery of Nitrogen from wheat Residue and Inorganic Fertilizer in a wheat - groundnut-Rotation System of a nutrient poor sandy soil. Funded by The Academy of Sciences for the Developing World (TWAS), Italy, 01/10/2008, 20 000 USD).
4. Effect of Tillage Practices on Soil Quality Under Different Dry Farming Systems. (24 000 000 SDG, Ministry of Higher Education and Scientific Research, 2006).
5. Utilization of composted bagasse, water hyacinth and banana wastes in reclamation of desert soils. Funded by Drylands Coordination Group, Norway, 2009, 20 000 USD.
6. Assessment of clay based, recycled zeolite and sewage sludge ameliorants for desert cultivation. Funded by University of Khartoum (25 000 SDG = 10 000USD).
7. Sodium removal during phytoremediation of calcareous salt-affected soils through H-proton release from some selected legumes. Ministry of Higher Education and Scientific Research, 2011, 20000SDG).
8. Assessment of Treated Waste Water from Oil Refinery on Soil, Fruit and Tree Quality, El Obied, North Kordofan State (30000SDG from Ministry of Higher Education and Scientific Research, Sudan).
9. **More crop per drop for sub-Saharan Africa: Key rhizosphere traits to overcome multiple resource limitation. A 5 year Robert-Bosch Sustainability Project, Germany. Co-applicant. Total Fund is 1 523 992 €.**
10. **Desert cultivation with sorghum (*Sorghum bicolor* L) using compst and biochar from sewage sludge. A3 year project fuded by the Ministry of Higher Education and Scientific Research, Sudan. Total fund is 173 000 SDG (May 2017).**
11. **Reclamation of desert soils by recycling of liquid and sild sewage sludge in El Taif State, Kingdom of Saudi Arabia, 75800 Saudi Riyal, funded by Ministry of Higher Education, Taif University, Saudi Arabia**

## **FUNDED PROJECTS AS CO INVESTIGATOR**

1. Appraisal of the quality of the Red Sea Water and Prospects for its Irrigation Use. 40 000 000 SDG, Ministry of Higher Education and Scientific Research, 2006).



2. الأثار البيئية والحيوية للتوزيع غير المنتظم للمياه الريفية فى ولاية غرب كردفان، تمويل وزارة التعليم العالي والبحث العلمى، 371000 جنيه، 2017.

## SUBMITTED PROJECTS FOR FUNDING

1. Agricultural potential value of hoof powder and wool waste in restoration of degraded agricultural lands. Submitted to Dryland Coordination Group (DCG), Norway (105239.5 USD)
2. Incorporation of clay for cultivation of poor desert soils. Submitted to Dryland Coordination Group (DCG), Norway (65338.92 USD).

## INTERNATIONAL ASSIGNMENTS

1. Working group for Pillar 3: Draft plan of action for Pillar Three of the Global Soil Partnership: "Promote targeted soil research and development focusing on identified gaps, priorities and synergies with related productive, environmental and social development actions". Global Soil Partnership (GSP), FAO: On going.
2. Lead Author for the status of soil report of the Middle East and North Africa, The Status of World Soil Resources Report (SWSR), Global Soil Partnership, FAO: On going.

## REFEREES

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### ***International and Regional Reviewing***

No	Manuscript Title	Journal
1	Desodication from calcareous saline sodic soil through Phytoremediation with Phragmites australis (Cav.) Trin. Ex Steud. and gypsum" for the International Journal of Phytoremediation	International Journal of Phytoremediation
2	Tillage and planting methods on soil properties, yield, root rot and nutrient uptake in a continuously grown cassava field in a semi arid Vertisols of India	Acta Agriculturae Scandinavica, Section B - Plant Soil Science.
3	Soil macro and micro-nutrient status of Chandel district, Manipur (India)	African Journal of Agricultural Research
4	Simultaneously sodification of potassium and phosphorous using rice straw charcoal and saturated phosphorous adsorbent	International Journal of Recycling of Organic Waste in Agriculture
5	Response of rainfed sunflower [ <i>Helianthus annuus</i> (L.)] to phosphorus and nitrogen fertilization in a semi-humid tropical Vertisols	HELIA
6	Effects of three tree species on microclimate and soil amelioration in the central rift valley of Ethiopia	Journal of Soil Science and Environmental Management
7	Response of sunflower ( <i>Helianthus annuus</i> L.) to phosphorous and nitrogen fertilization under rainfed conditions, Blue Nile State, Sudan	HELIA

### ***National Reviewing***

No	Manuscript Title	Journal
1	Effect of heavy metals distribution on soil horizons	Elbuhuth Journal
2	Environmental Impact Assessment for Developmental Agricultural Activities in the Sudan	University of Khartoum Journal of Agricultural Science
3	Essays on Soils and Mango ( <i>Mangifera indica</i> L.) Humus as Growing Media for Raising Some Forest Tree Seedlings in the Nursery	University of Khartoum Journal of Agricultural Science
4	Physico-chemical properties of a Vertisol and performance of sunflower ( <i>Helianthus annuus</i> ) as influenced by some amendments	Elbuhuth Journal
5	Assessment of land degradation in Elsilate Scheme using some biophysical indicators, Sharg Elneel, Khartoum State, Sudan	Sudan Journal of Desertification Research
6	Assessment and Mapping of Desertification Using Remote Sensing and GIS Techniques in <i>Khor Abu Habil</i> Area, North	Sudan Journal of Desertification Research

### ***Promotion assessment***

No	Name of candidate	For Associate	For Professor	Institution
1	Abdelmagid El Mobarak		√	Agricultural Research Corporation
2	<u>Abd Almohsin Rizgalla Khairalseed</u>		√	Sinnar University