

CURRICULUM VITAE

PERSONAL DETAILS

Name: Rashid Mekki Hassan
Date of Birth: February 22, 1953
Citizenship: Dual Sudanese and South African
Marital Status: Married (4 children)
Address: Centre for Environmental Economics and Policy in Africa (CCEPA)
Department of Agricultural Economics,
Faculty of Natural and Agricultural Sciences,
University of Pretoria, Pretoria 0002, RSA
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LANGUAGES

Fluency in Arabic and English (spoken and written)

EDUCATION

Ph.D. Economics, December 1989, IOWA STATE UNIVERSITY, USA.

M.Sc., Agricultural Economics, May 1988, IOWA STATE UNIVERSITY, USA

M.Sc., Agric. Economics, March 1983, UNIVERSITY OF KHARTOUM, Sudan

B.Sc., Honors (Division I), July 1977 UNIVERSITY OF KHARTOUM, Sudan (Major: Agricultural Economics)

PROFESSIONAL INTERESTS AND EXPERIENCES

Natural resource and environmental economics and policy, optimized management and integrated modeling of natural and economic systems, environmental accounting and impacts of & adaptation to climate change

Experience with developing countries, mainly eastern, central and southern Africa

SUPERVISION OF POST-GRADUATE THESES RESEARCH

Chair of Students' Advisory committee (since 2000): 14 MSc and 22 PhD Theses:

1. Four MSc (Three with distinction) and one PhD students graduated in 2002 and 2003
2. Four PhD and Three MSc (One with distinction) students graduated in 2004
3. Two MSc students graduated in 2005
4. Two PhD and one MSc students graduated in 2006
5. Two PhD students graduated in 2007
6. One PhD graduated in 2008
7. One PhD and one MSc students graduated in 2009
8. Two PhD students graduated in 2010
9. One PhD student graduated in 2011

10. One PhD student graduated in 2012
11. One PhD and one MSc students graduated in 2013
12. Two PhD and one MSC students graduated in 2014
13. One MSc (with distinction) and one PhD students graduated in 2015
14. 3 remaining PhD students currently enrolled under my supervision expected to complete and graduate in 2015 and 2016

Co-supervisor (since 1998): Five MSc and Four PhD Theses

External examiner (since 1993): Eight MSc theses (Universities of Pretoria, Natal, Cape Town, Nairobi and Khartoum) and **Four PhD theses** (University of Khartoum, Makerere University, University of Malwai, University of Delhi).

TEACHING

Taught core departmental courses in quantitative methods, research methodology, production economics and natural resources management and environmental economics and policy since 1997

Led the efforts to develop and introduce all the curricula on natural resource and environmental economics and policy currently taught on campus and at the regional collaborative masters program specialization in this field in which 18 university departments from the eastern, central and southern Africa region currently participate and send students to.

RECENT LEADERSHIP ROLES

Designed and led the Sida funded program supporting individual and institutional capacity building in environmental economics and policy in the east, central and southern Africa region in which 18 economics and agricultural economics departments currently participate and receive support through various faculty development and visiting fellowships, PhD scholarships, library support, research grants and other benefits (initial phase 2005- continuing)

Established and directed the center for environmental economics and policy analysis in Africa (CEEPA) currently the only one of its kind in Africa and receives very high international recognition as a leading center of excellence in this field in the developing world (2000 – current)

Established and coordinated the resource accounting net work for eastern and southern Africa (RANESA) (1998-current)

Designed and led the Africa-wide (11 countries) GEF-World Bank funded project on impacts of climate change on agriculture in Africa (2002-current)

Designed and led the Sida-USAID funded environmental accounting in eastern and southern Africa project (1998-current)

INTERNATIONAL INVOLVEMENTS AND ACHIEVEMENTS

MEMEBR OF THE COMMITTEE FOR DEVELOPMENT POLICY (CDP) OF THE UN DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS (DESA) – (January 2016 – December 2018)

MEMEBR OF THE SCIENCE ADVISORY COUNCIL (SAC) OF THE STOCKHOLM ENVIRONMENT INSTITUTE – SEI (June 2014 -)

MEMEBR OF THE BOARD OF THE INTERNATIONAL SOCIETY FOR ECOLOGICAL ECONOMICS – ISEE

(February 2014 -)

TWAS MEMBERSHIP ADVISORY COMMITTEE (MAC) FOR SOCIAL AND ECONOMIC SCIENCES (2013-2015)

MEMBER OF THE UNEP PROECOSERV (Project on Ecosystem Services and Natural Capital) Steering Committee (since 2012-current)

SENIOR FELLOW OF ZEF (CENTRE FOR DEVELOPMENT RESEARCH), UNIVERSITY OF BONN (2013-2016)

MEMBER OF FAO HIGH LEVEL PANEL OF EXPERTS (HLPE) ON THE STUDY ON FOOD SECURITY AND CLIMATE CHANGE (FSCC), NOVEMBER 2011 – JUNE 2012

MEMBER OF THE INDEPENDENT SCIENCE AND PARTNERSHIP COUNCIL (ISPC) OF THE CGIAR, JANUARY 2011

CO-CHAIR OF THE EUROPEAN SCIENCE FOUNDATION (ESF) AFRICA CONFERENCE “DYNAMIC INTERLINKAGES BETWEEN SOCIAL AND ECOSYSTEM CHANGE: TOWARDS A EUROPE AFRICA PARTNERSHIP” – NOVEMBER 2010, NETHERLANDS

MEMBER OF THE STEERING COMMITTEE OF THE “CLIMATE CHANGE AND FOOD SECURITY –CCAF” OF THE CGIAR AND THE EARTH SYSTEM SCIENCE PARTNERSHIP (ESSP) CHALLENGE PROGRAM– JANUARY 2009 – DECEMBER 2010

MEMBER OF THE INTERNATIONAL PROGRAM COMMITTEE OF ENVIRONMENT AND WATER RESOURCE MANAGEMENT (AFRICA EWRM) OF IASTED, 2010-present

MEMBER OF THE EXTERNAL ACADEMIC ADVISORY PANEL FOR THE WORLD DEVELOPMENT REPORT 2009 ON CLIMATE CHANGE, WORLD BANK (2008-09)

MEMBER OF THE BOARD OF THE STOCKHOLM RESILIENCE CENTRE (SINCE 2007)

MEMBER OF THE SCIENTIFIC AND TECHNICAL ADVISORY PANEL *PHASE 4* (STAP IV) OF THE GLOBAL ENVIRONMENT FACILITY (GEF) (2006 for 3 years)

MEMBER OF THE EXECUTIVE COMMITTEE OF THE AFRICAN ASSOCIATION OF AGRIC ECONOMISTS (2006 – present)

MEMBER OF THE PANEL OF THE SECOND EXTERNAL PROGRAM AND MANAGEMENT REVIEW (EPMR) OF CIFOR (2005-06)

PROJECT LEADER, THE AFRICA-WIDE GEF/WORLD BANK FUNDED PROJECT ON: Impacts of climate change on agriculture, water and ecosystems (2002 – 2005)

MEMBER OF THE SCIENCE PANEL AND CO-CHAIR OF WORKING GROUP II (Condition and Trend) of the **Millennium Ecosystem Assessment** (2001-2005), An international process to bring scientific findings on ecosystem goods and services to bear on decision-makers’ needs

ONE OF THE TWO MEMBERS EXTERNAL REVIEW TEAM evaluating the African Economic Research Consortium (AERC) activities and performance during PHASE V (2000-2004)

MEMBER OF DIVERSITAS CORE PROJECT 3 ADVISORY COMMITTEE (2003-present)

MEMBER, ADVISORY COMMITTEE, African Society of Ecological Economics - ASEE (since 2004)

MEMBER, INTERNATIONAL STEERING COMMITTEE of the “Poverty Reduction and Environmental Management (PREM)” global Initiative funded by the Netherlands Government

MEMBER OF THE PEER REVIEW GROUP ON ECONOMICS AND TRADE ISSUES OF THE HIGH SEAS TASK FORCE (A Ministerial-Led OECD Task Force on Illegal, Unreported and Unregulated Fishing on the High Seas), September 2004-April 2005

SENIOR ASSOCIATE, PROGRAM ON ECOLOGICAL AND ENVIRONMENTAL ECONOMICS (EEE), *Abduls Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy (2003-2005)*

CO-LEADER, THE NATURAL RESOURCE ACCOUNTING IN EASTERN AND SOUTHERN AFRICA PROJECT funded by Sida Sweden (2003 – 2006)

COORDINATOR OF THE RESOURCE ACCOUNTING NETWORK FOR EASTERN AND SOUTHERN AFRICA (RANESA), Funded by SIDA Sweden and The Beijer Institute of the Royal Swedish Academy of Sciences (1999- present)

MEMBER OF THE HIGH-LEVEL EXPERT PANEL ADVISING AN AFRICA-WIDE PROJECT ON SUSTAINABLE DEVELOPMENT AND POLICY, Coordinated by the Scandinavian Seminar College in Copenhagen (1998-1999)

ASSOCIATE EDITOR of *Agricultural Economics* (AE) (2006-), journal of The International Association of Agricultural Economics (IAAE)

FOUNDING CHIEF-EDITOR of the *African Journal of Agricultural and Resource Economics (AfJARE)* (2006-2010), Journal of the African Association of Agricultural Economics (AAAE)

ASSOCIATE EDITOR of *Environment and Development Economics (EDE)* (1999- 2006), Cambridge University Press

EDITORIAL BOARDS

Global Food Security (2012-), Sciencedirect

Climate Change Economics (2010-), Published by World Scientific

Strategic Behavior and the Environment (2009-), Published by NOW Publishers

Ecological Economics (2002- present), journal of The International Society of Ecolog. Economics (ISEE)

Environment and Development Economics (EDE) (2007-present)

MEMBER of *selection committees* of contributed papers and best paper for various International Conferences including: European Association of Resource and Environmental Economics (2008, 2010); International Association of Agric Economists (1997, 2000, 2003, 2006, 2009); International Society of Ecological Economics (2003, 2008); Environment and Development Economics (2000); World Congress for Environmental Economists (1999, 2002, 2006), International Foundation for Science (IFS) (2002, 2005, 2006), Sida (2003, 2004, 2005), LEVSA (2000, 2001, 2002, 2006, 2015); .

REVIEWER OF MANUSCRIPTS SUBMISSIONS to the *following journals*: Envir. & Develop. Econ., American Journal of Agric Economics, Journal of Agric. Economics, Ecological Economics, Southern African Journal of Science, Agricultural Economics, Journal of International Development, Agrekon, Develop. Southern Africa, Food Policy, Southern African Forestry Journal, Water South Africa, South Africa Journal of Economic Management, Soil Biology, Agricultural Systems, African Journal of Marine Science, Journal of African Studies.

EMPLOYMENT RECORD

<i>April 2001 – Present</i>	DIRECTOR, Centre for Environmental Economics and Policy in Africa (CEEPA), Faculty of Natural and Agricultural Sciences, University of Pretoria
<i>January 1998 – April 2001</i>	PROFESSOR and CHAIR in environmental economics and policy, Department of Agricultural Economics. University of Pretoria, South Africa
<i>April 1997 - December 1997</i>	ASSOCIATE PROFESSOR of agricultural and resource economics, Department of Agricultural Economics, University of Pretoria, Pretoria 0002, RSA.
<i>May 1995 - March 1997</i>	ENVIRONMENTAL ECONOMIST. Principal Researcher and Leader of the Economic Analysis and Policy Support Group at the Division of Water, Environment, and Forest Technology, the CSIR, P. O. Box 395, Pretoria 0001, RSA.
<i>November 91-April 95</i>	REGIONAL ECONOMIST with the International Maize and Wheat Improvement Center (CIMMYT) in Nairobi, P. O. Box 25171, Kenya.
<i>Nov. 1989- Oct. 1991</i>	ROCKEFELLER POST-DOCTORAL FELLOW, CIMMYT, Nairobi, Kenya.
<i>August 1988-august 1989</i>	TEACHING ASSISTANT/PREDOCTORAL RESEARCH FELLOW, Department of Economics, Iowa State University, USA.
<i>January 1985-July 1988</i>	RESEARCH ASSISTANT, Dept. of Econ., ISU, USA.
<i>April 1984-August 1984</i>	HEAD, INFORMATION SECTION, Division of Economic Planning, National Energy Admin., Ministry of Energy and Mining, Sudan.
<i>January 1983-March 1984</i>	LECTURER, College of Social and Economic Studies, University of Juba, Sudan.
<i>January 81- December 82</i>	RESEARCH ASSISTANT, Dept. of Rural Economy, University of Khartoum, Khartoum, Sudan.

OTHER RELEVANT PROFESSIONAL ACTIVITIES

SABBATICAL at THE INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE (IFPRI) in Washington, DC (August 1 to October 31, 2015)

SABBATICAL at the RESILIENCE CENTRE, STOCKHOLM UNIVERSITY, Sweden (July 2012 – October 2012)

SABBATICAL at the CENTRE FOR WATER SCIENCE AND POLICY, UNIVERSITY OF CALIFORNIA, Riverside, USA (July 2011 – October 2011)

MEMBER OF THE ACADEMY OF SCIENCES FOR SOUTH AFRICA (ASSAF) STANDING COMMITTEE ON WATER (From January 2010)

MEMBER OF THE BOARD OF HUMAN SCIENCES RESEARCH COUNCIL (HSRC), SOUTH AFRICA (FROM 2009)

MEMBER OF THE STEERING COMMITTEE OF THE AFRICAN CENTRE FOR CLIMATE AND EARTH STEWARDSHIP SCIENCE – ACCESS (From October 2008)

MEMBER OF THE SOUTH AFRICAN FORESTRY COMPANY (SAFCOL) BOARD (since October 2006)

MEMBER OF ACADEMY OF SCIENCE OF SOUTH AFRICA (ASSAf) - (since November 2005)

MEMBER OF EDITORIAL BOARD, *WATER SA Journal* (since February 2005)

ASSOCIATE EDITOR, *Agrekon*, Journal of the Agric Econ Association of SA (1998 - 2001)

MEMBER of the Editorial Advisory Board of *Development Southern Africa* journal, (1997-present).

SABBATICAL at Abduls Salam ICTP, Trieste, Italy (May 10 – June 20, 2003 and September 1 – October 17, 2003)

SABBATICAL (JULY 1 – SEPTEMBER 15, 2001) AT THE ENVIRONMENT DEPARTMENT, WORLD BANK, Washington DC

MEMBER of the Advisory Committee on Safety of Dams to the Minister of Water Affairs, RSA (1998-2001)

MEMBER of the Regional Technical Committee of the Water Demand Management in SA project, SIDA project coordinated by IUCN (1998-1999)

MEMBER of several Water Research Commission (WRC) Steering Committees advising commission funded research projects (1997-1999). Examples include: Value of Water in the Great Letaba Catchment; Hydrological Economic model for the Mvoti Catchment; Evaluating the environmental use of water in Eastern and Southern Cape; The economic value of water reserves for ecosystems maintenance.

MEMBER of South Africa's National Forestry action Program Task Team (1997)

MEMBER of the Steering Executive of the National Advisory Committee for the WWF Project on Macroeconomics and the Environment in SA (1997)

MEMBER of the IUCN-ROSA Steering Committee for the NETCAP project in southern Africa (96-98).

MEMBER of the Water Resources stakeholders Forum, WRC, South Africa (96-97).

HONORS/AWARDS

Fourth time University of Pretoria Exceptional Academic Achiever Award (2014-2016)

Third time University of Pretoria Exceptional Academic Achiever Award (2011-2013)

Elected Senior Fellow of the African Association of Agric Economists (2010)

Chancellor Medal-Research, University of Pretoria (2010)

The Agric. Econ. Association of South Africa Second Best Published International Journal Article Prize (2010)

Elected Fellow of the Academy of Sciences for the Developing World (TWAS) in 2009

The Agric. Economics Association of South Africa Best Published International Journal Article Prize for 2008

Second time University of Pretoria Exceptional Academic Achiever Award (2008-2010)

B Rating from the National Research Foundation, RSA (2005)

University of Pretoria Exceptional Academic Achiever Award (2005-2007)

The Agric. Econ. Association of South Africa Best Published International Journal Article Prize for 1997.

Nominated CSIR Divisional Fellow, November 1996, CSIR, Pretoria

Rockefeller Foundation Social Science Post-Doctoral Research Fellowship in Agriculture (1989-1992).

World Food Institute Scholarship, Iowa State University, 1988

Graduate College Scholarship, Iowa State University, 1985-1987

Nomination to the Honor Society of Gamma Sigma Delta, Iowa Chapter, 1986

Nomination to the Honor Society of Phi Kappa Phi, Iowa Chapter, 1986

Ford Foundation Scholarship, University of Khartoum, Sudan, 1981-1982

MEMBERSHIPS OF PROFESSIONAL SOCIETIES

The African Association of Agricultural Economists (AAAE), 2004--
The Africa Society of Ecological Economics, 2004--
The International Society of Ecological Economics, 1996--
The Agriculture Economics Society of South Africa, 1996--
The Honor Society of Phi Kappa Phi, 1987--
The American Agriculture Economics Association, 1985--
The International Association of Agric. Economists, 1988--
The Honor Society of Gamma Sigma Delta, 1986--

REFERENCES

Professor Partha Dasgupta, Cambridge University
Professor C. Perrings, Environment Department, University of York
Dr. Ariel Dinar, Rural Development Program, World Bank
Professor Arne Hallam, Dept. of Economics, Iowa State University, Ames, Iowa
Professor K. Maler, The Beijer International Institute for Ecological Economics, Sweden

REFEREED PUBLICATIONS (174)

JOURNAL ARTICLES [103]

[103] Waha, Zipf, Kurukulasuriya, Hassan (2016), An agricultural survey for more than 9000 African households, *Scientific Data* (www.nature.com/scientificdata - DOI:10.1038/data.2016.20)

[102] Magboul and Hassan (2016), Determinants of small-scale business owners' participation in formal microcredit markets in Sudan, *The Journal of Developing Areas*, Vol. 50, No. 5: 229-240

[101] Magboul and Hassan (2015). The gap between demand and supply and repayment performance of microcredit in Sudan, *Khartoum University Journal of Management Studies*, Volume 9, No. 1

[100] Hassan and Crafford (2015), Measuring the contribution of ecological composition and functional services of estuaries ecosystems to the dynamics of Kwazulu-Natal coast fisheries, *Ecological Economics* 119 (2015): 306-313

[99] Wilkinson, Magagula, and Hassan (2015), Piloting of method to evaluate the implementation of integrated water resource management experiences and performance in the Inkomati River Basin, *Water SA Vol. 41 No. 5 (October 2015): 633-642* <http://dx.doi.org/10.4314/wsa.v41i5.06>, Available on website <http://www.wrc.org.za> (ISSN 1816-7950, On-line)

[98] Hassan and Thiam (2015), Implications of water policy reforms for virtual water trade between South Africa and its trade partners: Economy-wide approach, *Water Policy* 17 (2015) 649–663

[97] Honlonku and Hassan (2015), Developing countries' response to the clean development mechanism under imperfect information and transaction costs, *Climate Change Economics*, Vol. 6 No. 1 (DOI: 10.1142/S2010007815500013)

- [96] Sekhweni and Hassan (2014), Determinants of herd size among small-scale cattle farmers: the case of selected villages at Mhinga Traditional Authority in Limpopo Province, South Africa, *Agrekon*, Vol. 53 (4): 106-122
- [95] Abusin and Hassan (2014), Legitimacy and ethics of deterrence factors more important for compliance with regulations among artisanal fishers of Sudan, *African Journal of Agric. & resource Economics*, Volume 9 Number 3 (August 2014): 239-2020
- [94] Hassan, R. (2014), Achievements and future challenges for environment and development economics, *Environment and Development Economics*, Volume 19 (June 2014): 290-292
- [93] Crafford and Hassan (2014), Relationships between ecological infrastructure and the economy: The case of a fishery, *South African Journal of Science*, Volume 110 (No 7/8-July/August): 1-8
- [92] Girma and Hassan (2014), Drivers of land use change in the Southern Nations and Nationalities People's Region of Ethiopia *African Journal of Agric. & resource Economics*, Volume 9 Number 2 pages 148-164
- [91] Sekhweni and Hassan (2013), Opportunities and challenges facing small-scale cattle farmers living adjacent to Kruger National Park, Limpopo Province, *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 5(1):38-43
- [90] Abusin, Hassan and Hertzler (2012), Natural resource modeling: Allowing for inconstant probability of detection and frequency measures of violation within dynamic deterrence fishery models, *Natural Resource Modeling*, Volume 25, Number 3 (August 2012): 511-52
- [89] Girma, Hassan and Hertzler (2012), Forest conversion versus conservation under uncertain market and environmental forest benefits in Ethiopia: The case of Sheka forest, *Forest Policy and Economics* 21 (2012): 101-107.
- [88] Nakhumwa and Hassan (2012), Optimal management of soil quality stocks and long-term consequences of land degradation for smallholder farmers in Malawi, *Environment and Resource Economics* (2012) 52:415-433.
- [87] Akinola, Abiodun and Hassan (2011). Impact of climate change on rice agriculture in Nigeria, *Tropical & Subtropical Agro-ecosystems* 14 (2011): 613-622
- [86] Akpalu, Hassan, and Ringler (2011). Climate Variability and Maize Yield in the Limpopo Region of South Africa: Results from GME and MELE Methods, *Climate and Development* 3(2011):114-122
- [85] Hassan & Birungi (2011). Social capital and poverty in Uganda, *Development Southern Africa*, Vol. 28, No. 1 (2011): 19-37
- [84] Banda & Hassan (2011). Inter-fuel substitution and dynamic adjustment in input demand: Implications for deforestation and carbon emission in Malawi, *African Journal of Agric. & resource Economics*, Vol. 6, No. 1:54-69
- [83] Hassan and Thurlow (2011). Macro–micro feedback links of water management in South Africa: CGE analyses of selected policy regimes, *Agricultural Economics*, Vol. 42, No. 2 (2011): 235-247
- [82] Deressa, Hassan, Ringler (2011). Perception of and adaptation to climate change by farmers in the Nile Basin of Ethiopia, *Journal of Agricultural Science*, Vol. 149: 23-31
- [81] Nhemachena, Hassan and Kurukulasuriya (2010). Measuring the economic impact of climate change on African

agricultural production systems, *Climate Change Economics*, Vol. 1, No. 1 (2010): 33-55

[80] Jogo and Hassan (2010). Determinants of rural household labor allocation for wetland and other livelihood activities: The case of the Limpopo wetland in southern Africa, *Agrekon* 49(2): 195-216

[79] Hassan, R. (2010). The double challenge of adapting to climate change while accelerating development in sub-Saharan Africa, *Environment & development Economics*, Vol. 15:661-685

[78] Jogo and Hassan (2010). Balancing the use of wetlands for economic well-being and ecological security: the case of the Limpopo wetland in southern Africa, *Ecological Economics*, 60 (2010): 1569-1579

[77] Hassan, R. (2010). Implications of Climate Change for Agricultural Sector Performance in Africa: Policy Challenges and Research Agenda, *Journal of African Economies*, Vol. 19, AERC Supplement 2

[76] Gbetibouo, Hassan and Ringler (2010). South African farming sector vulnerability to climate change and variability: An indicator approach. *Natural Resources Forum* 34 (2010): 175-87.

[75] Yerga and Hassan (2010). Social costs and incentives for optimal control of soil nutrient depletion in the central highlands of Ethiopia. *Agricultural Systems* 103 (2010): 153-160

[74] Birungi and Hassan (2010), Influences of poverty, access to social capital and tenure security on land conservation and fertility management in Uganda, *African Journal of Agric. & Resource Economics*, Vol 4 No. 1 (March 2010): 48-69

[73] Gbetibouo, Hassan and Ringler (2010). Modeling farmers' adaptation strategies to climate change: The case of the Limpopo basin in SA. *Agrekon* 49(2) 2010: 217-234

[72] Beyne and Hassan (2009). The role of learning in adoption of improved wheat varieties in Northern and Southern Shewa of Ethiopia, *Ethiopian Journal of Agric Economics*, Vol. VII, No.2 (May 2009): 35-54

[71] Deressa and Hassan, (2009), Economic impact of climate change on crop production in Ethiopia: Evidence from cross-section measures, *Journal of African Economies*, Vol. 18, No. 4: 529-554

[70] Hassan, Hertzler and Benhin. (2009), Depletion of forest resources in Sudan: Intervention options for optimal control. *Energy Policy* 37 (2009): 1195-1203

[69] Mmopelwa, Blignaut and Hassan, (2009). Direct use values of selected vegetation resources in the Okavango delta wetland. *South African Journal of Economics and Management Sciences-SAJEMS*, Vol. 12 No. 2 (June 2009):

[68] Deressa, Hassan, et al. (2009), Determinants of farmers' choice of adaptation methods to climate change in the Nile Basin of Ethiopia. *Global and Environmental Change* 19 (2009): 248-255

[67] Seo, Mendelsohn, Dinar, Hassan, and Kurukulasuriya (2009). A Ricardian analysis of the distribution of climate change impacts on agriculture across agro-ecological zones in Africa, *Environment and Resource Economics*, No 43: 313-332

[66] Yerga & Hassan (2008). Multinomial logit analysis of farmers' choice between short and long-term soil fertility management practices in the Central Highlands of Ethiopia, *Ethiopian Journal of Agricultural Economics*, Vol. VII, No 1 (June 2008):83-105

[65] Hassan, R. and C. Nhemachena (2008). Determinants of climate adaptation strategies of African farmers: A multinomial choice analysis, *African Journal of Agric. & Resource Economics*, Vol. 2, No. 1: 83-104

- [64] Hassan, R (2008). The life and work of living legends: Prof. Sir Partha Dasgupta, *International Journal of Ecological Economics and Statistics*, Vol. 11, No. S08: 1-2
- [63] Benhin and Hassan (2008). A Dynamic analysis of trade and biodiversity loss in semi-arid Southern Africa: The role of grazing activities, *Int. Journal of Ecological Economics and Statistics*, Vol. 11, No. S08: 31-48.
- [62] Alene and Hassan (2008). Food production efficiency under traditional and improved technology in a developing economy: the case of farmers within and outside the extension package program in Ethiopia. *Journal of Developing Areas-JDA*, Volume 41, No. 2: 233-249
- [61] Birungi and Hassan (2007). Impact of alternative land management options on soil fertility and erosion in Uganda, *Agrekon* Vol 46, No. 3 (September 2007): 410-424
- [60] Lange, Mungatana and Hassan (2007). Water accounting for the Orange River Basin: An economic perspective on managing a trans-boundary resource, *Ecological Economics* 61 (2007): 660-670
- [59] Nikky, Mabugu and Hassan (2007). Inter-fuel substitution: The case of the Nigerian Industrial sector, *Journal of Energy in Southern Africa (JESA)*, Vol 18 No. 1 (February 2007): 39-50
- [58] Banda, Farolfi and Hassan (2007), Estimating Water Demand for Domestic Use in Rural South Africa in Absence of Price Information, *Water Policy*, 9 (5): 513-528
- [57] Matete and Hassan (2007). Integrated ecological economics accounting approach to evaluation of inter-basin water transfers: An application to the Lesotho Highlands Water project. *Ecological Economics* 60 (2007): 246-259
- [56] Kurukulasuriya, Mendelsohn, Hassan, et al. (2006). Will African agriculture survive climate change? *World Bank Economic Review-WBER* Vol. 20 (3): 367-388
- [55] Fufa and Hassan (2006). Income risk and crop production patterns of small-scale farmers in Eastern Oromiya Region of Ethiopia, *Eastern Africa Social Science Research Review (EASSRR)*, Vol. XXII, No. 1 (January 2006): 87-101.
- [54] Hassan and Ngwenya (2006). Valuing forest services missing from the national accounts: Empirical assessment of the contribution of cultivated forests to wealth accumulation in Swaziland, *Forest Policy and Economics* 9 (2006): 249-260
- [53] Chillot and Hassan (2006), Poverty and soil conservation efforts among smallholder farmers in the Central Highlands of Ethiopia, *SA Journal of Economic and Management Sciences (SJEMS)* NS 9, No. 2 (2006): 244-61
- [52] With Reed and MEA Panel (2006), Nature: the many benefits of ecosystem services, *Nature*, Vol. 443 (19 October 2006): p 749.
- [51] Fufa and Hassan (2006). Determinants of fertilizer use on maize in Eastern Ethiopia: A weighted endogenous sampling analysis of the extent and intensity of adoption, *Agrekon*, Vol. 45, No. 1 (March 2006): 38-49
- [50] Moodley, Mabugu and Hassan (2005). Analyzing Scenarios for energy emissions reduction in South Africa. *Journal of Energy in Southern Africa (JESA)*, Volume 14, No. 4 (November 2005): 182-188
- [49] Alene and Hassan (2005). The efficiency of traditional and hybrid maize production in Eastern Ethiopia: An extended efficiency decomposition approach. *Journal of African Economies*, Volume 15, No. 1 (March 2006): 91-116
- [48] Hassan and Farolfi (2005). Water value, resource rent recovery and economic welfare cost of environmental

protection: a water sector model for the Steelpoort sub-basin in South Africa, *Water SA*, Vol. 31, n. 1, 2005, p. 9-18.

[47] Ngwenya and Hassan (2005). An environmental accounting approach to valuing the services of natural forests and woodlands in Swaziland, *Agrekon*, Volume 44, No. 2 (June 2005): 264-283

[46] Deressa, Hassan and Poonyth (2005). Measuring the economic impact of climate change on South Africa's sugarcane growing regions, *Agrekon*, Volume 44, No. 4 (December 2005): 524-542

[45] Alene, Hassan and Demeke (2005). The technical and cost efficiencies of hybrid maize production in western Ethiopia, *Quarterly Journal of International Agriculture*, 44 (2005) No. 2: 163-177.

[44] Matete and Hassan (2005). An ecological economics framework for assessing environmental flows for sustainable development: The case of the Lesotho Highlands inter-basin water transfer. *Global and Planetary Change* 47 (2005): 193-200.

[43] Gbetibouo and Hassan (2005). Economic impact of Climate Change on major South African field crops: A Ricardian Approach, *Global and Planetary Change* 47 (2005): 143-152.

[42] Mungatana and Hassan (2005). Valuation of public goods in nature-based tourism: Experiences from Africa. *Tourism Vol. 53, No. 2 (2005): 153-161*

[41] Alene and Hassan (2003). Total factor productivity and resource use efficiency of alternative cropping systems in two agro-climatic zones in eastern Ethiopia. *Agric Econ Rev. Volume 4 (2 August 2003): 32-46*

[40] Lange, Hassan and Alfieri (2003). Using environmental Accounts to promote sustainable development: Experiences in Southern Africa. *Natural Resources Forum* 27 (2003): 19-31

[39] Hassan, R. (2003). Economy-wide benefits from water intensive industries in SA: Quasi I-O analysis of the contribution of irrigation agriculture and cultivated plantations in the Crocodile catchment. *Development Southern Africa Vol. 20, No. 2, June 2003*

[38] Fufa and Hassan (2003). Stochastic maize production technology and production risk analysis in Ethiopia. *Agrekon*, 42(2): 116-128

[37] Alene and Hassan (2003). Determinants of farm level technical efficiency among adopters of improved maize production technology in western Ethiopia. *Agrekon*, Volume 42(1): 1-14

[36] Hassan (2003). Measuring asset values and flow benefits of non-traded products and ecosystem services of forest and woodland resources in SA. *Environment, Development and Sustainability* 5: 403-418 (2003)

[35] Nakhumwa and Hassan (2003). The adoption of soil conservation technologies by smallholder farmers in Malawi: a selective Tobit analysis. *Agrekon*, Vol 42(3): 271-284

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