

Appendix I: ACCAI Courses, Research, Students

New courses developed

Organization	# of developed courses	Areas covered
Mekelle University	2 specializations with 6 modules and teaching packages	Sustainable Development; Climate Science; Climate and Health; Disaster Risk Management; Climate and Hydrology; Climate Economics
University of Ghana	25 new courses for and MPhil and MSc program	Climate Change: Science and Evidence, Climate Change Mitigation for Sustainable Development, Climate Change Vulnerability, Impacts and Adaptation, Policies, Legal frameworks, Impact evaluation; Society, Research methods, gender, land rights, marketing, smart agriculture, etc.
University of the Witwatersrand	4 (one core plus 3 electives)	Business and the Environment (Business School) Global Institutions and Restructuring (Sociology) The economics and Sociology of Development (Sociology), One core course specifically on Food Security
University of DSM	16 courses improved for the new curriculum	Ecosystem dynamics in relation to Climate Change; Climate Change Adaptation, Mitigation and Development; Governance and Policy issues in relation to Climate Change; Food production systems in the context of Climate change; research on indigenous knowledge and its linkage to climate change adaptation options, etc.
University of Nigeria, Nsukka	curriculum for a post graduate program on Climate Change Economics, Innovation and Policy	Areas covered by the post-grad. course:: geography, economics, agriculture, law, engineering, health, arts and humanities; MSc. And PhD degrees: social sciences, physics, biology, environmental studies, agriculture, education, pharmacy, medicine; No clear information which is newly developed
University of Stellenbosch	short course with Wits	Food Systems and Climate Change

Research supported by OSF through ACCAI program

Mekelle University, Ethiopia

Student research

1. Meseret Embaye Reda (thesis): Gender wise Comparative Analysis of Vulnerability to Climate Change at Enda Mehoni and Raya Azabo districts, Tigray, Ethiopia
2. Muluye Meresa (thesis): Impact of watershed Management Interventions on households adaptive capacity to climate change risk, The case of Enameried - North Ethiopia
3. Desta Hadera (thesis): Impact of community shallow well irrigation on climate change adaptation and livelihood improvement in Saherti Samre, Tigray
4. Tesfay Berihu (thesis): Estimation of soli carbon stock as affected by Land use/Land Cover Change
5. Temesgen Bezabih Hagos (thesis and publication): The role of local institutions in food security and adaptation to Climate Change
6. Mengistu Tilahun (thesis and manuscript): Projected Impacts of Climate Change, Anthropogenic Pressure on *Loxodonta Africana* and Adaptation Strategies for Empowering Conservation Strategies in Kefta Sheraro National Park, Tigray, Ethiopia
7. Jemal Nurhusien (thesis): Sensitivity of Barely Varieties to Sowing Date Under Rainfall Variability: The Case of Mekelle & Wukro, Tigray, Ethiopia
8. Tiruwork Arega (thesis) Household's willingness to pay for Climate change mitigation in Urban Tigray
9. Henok Shiferaw (thesis and publication): Impact of climate change on hydrological response on degraded semiarid tropics of Agula catchment, Tigray, Northern Ethiopia
10. Abraham Haile (thesis): Reservoir sedimentation in Midmar Catchment, Northern Ethiopia
11. Amdework Zekarias (thesis): Influence of Climate Variables on Biting Flies and Bovine Trypanosomosis in Tselemti Destrict, North west Tigray, Ethiopia

Staff research

1. Henok Shiferaw (report): Characterizing Climate for Agricultural Production and Best Sowing Dates to Minimize Crop Failure: The Case of Kelte-Awelalo Woreda, Tigray, Northern Ethiopia
2. Amdom Gebremedhin (report): Impact of Climate Change on Irrigation: The case of Gum-selasa, Tigray Northern Ethiopia

Research Publications

Research Articles Published through MU-OSF project support

1. Henok S., Amdom G., Yemane T., Girmay G., Amanuel Z., Gebreyohannes G. and Samuale T. (2015). Characterizing Climate for Agricultural Production and Best Sowing Dates to Minimize Crop Failure: The Case of Kelte-Awelalo Woreda, Tigray, Northern Ethiopia, *International Journal of Multidisciplinary and Current Research*, **3**: 558-563

Research Articles Submitted for Publication through MU-OSF project support

1. **Habtamu T.M.**, Amdework Z.W. and **Amanuel Z.A** (2015). Influence of Climate Variables on Vector and Prevalence of Bovine Trypanosomosis in Tselemti District, North West Tigray, Ethiopia. Submitted to *Parasites & Vectors* (Publisher – Springer)
2. Tiruwork Arega and **Tewodros Tadesse** (2015), Willingness to Pay for Green Energy in Urban Tigray, Northern Ethiopia, *Journal of Energy Policy*

Research Articles Published by MU-ICS staff through spinoff projects

1. **Ssemwanga M.**, Majaliwa M., Jackson G., **Araya A.**, **Amanuel Z.** and John G. (2015). Modelling climate induced relative malaria incidence in the major sub climatic zones of Uganda, *Global Journal of Environmental Science and Technology*, **2**(6): 339-348.
2. **Araya A.**, **Atkilt G.**, **Tsedale D.**, Lucieta G.M., Hailay H., **Amanuel Z.A.** (2015). Assessing impacts of climate change on tef (*Eragrostis tef*) productivity in Debrezeit area, Ethiopia, *International Journal of Agricultural Science Research*, **4**(3): 039-048
3. **Temesgen B.**, **Tewodros T.**, **Henok S.** and **Amdom G.** (2015). Role of Rural Institutions in Determining Farmers Adaptation to Climate Change: The case of Kilde-Awlaelo District, Northern Ethiopia, *International Journal of Multidisciplinary and Current Research*, **3**: 479-485
4. **Berhe AA**, Martorano LG, **Girma A**, Habtu S, **Kebede H** and Hadgu KM. 2014. Comparative Efficiency Evaluation of Different Clay Pots Versus Bucket Irrigation System Under Swiss Chard (*Beta vulgaris* subsp. *cicla*) Growers Condition in Northern Ethiopia. *Malaysian Journal of Medical and Biological Research*, **1**, 122-127.
5. **Amanuel Zenebe**, Vanmaercke, M., Poesen, J., Verstraeten, G., Nigussie Haregeweyn, Mitiku Haile, Kassa Amare, Deckers, J., Nyssen, J., 2013. Spatial and temporal variability of river flows in the degraded semi-arid tropical mountains of northern Ethiopia. *Zeitschrift für Geomorphologie*, **57**(2): 143-169.
6. Habtamu Temesgen, Nyssen, J., **Amanuel Zenebe**, Mengistie Kindu, Mitiku Haile, 2013. Ecological succession and land use changes in a lake retreat area (Main Ethiopian Rift Valley). *Journal of Arid Environments*, **91**: 53 – 60.

7. Samuel Tesfaye, anthonu Josphi Raj and **Girmay Gebresamuel (2014)**. Assessment of Climate Change Impact on the Hydrology of Geba Catchment, Northern Ethiopia. *American Journal of Environmental Engineering*, **4 (2)**: 25-32.

University of the Witwatersrand

Student research

1. Craparo, A C W et al (2015) Coffee Arabica yields decline in Tanzania due to climate change: Global implications - (*Agricultural and forest meteorology* - 207 – 2015 - 1-10).
2. Report provides evidence of how climate change affects Arabica coffee growing areas - (*IITA – The Bulletin 2272 – 20-24 April 2015*) commentary on Craparo, A C W (2015) article above.
3. Culwick (Fatti), C E & Patel Z (2013) Perceptions and responses to urban flood risk: Implications for climate governance in the South (Applied Geography - 36 (2013) 13-122).
4. Culwick (Fatti), C E et al (2014) Climate change and urban development in Southern Africa: the case of Ekurhuleni Municipality (EMM) in South Africa – (*Water SA* vol 40 no 4 October 2014).
5. Deenanath, E.D., Iyuke, S. and Rumbold, K. (2012). The Bioethanol Industry in Sub-Saharan Africa: History, Challenges, and Prospects. *Journal of Biomedicine and Biotechnology*. Volume 2012, Article ID 416491, 11 pages. doi: 10.1155/2012/416491.
6. Oji, C K & Wentworth L (2013) The green economy and the BRICS countries: Bringing them together - occasional paper 170 – (*Economic diplomacy programme - SAIIA - December 2013*)
7. Oji, C K (2015) Bonds: a viable alternative for financing Africa's development - occasional paper 211 – (*Economic diplomacy programme - SAIIA - March 2015*).
8. Oji, C K (2015) {Promoting financial inclusion for inclusive growth in Africa - occasional paper 210 – (*Economic diplomacy programme - SAIIA - February 2015*).
9. Gutsa, I & Mandizadza E (2014) Enabled or Disabled? Assessing state-civil society relations in a changed political establishment in Zimbabwe – (*Research Gate - December 2014*)
10. Gutsa, I (2014) The view from below? Exposure to media sources and preference for democracy in Zimbabwe: A public opinion survey – (*Research Gate - November 2014*).
11. Gutsa, I (2014) climate change and policy making in Zimbabwe. In search of evidence based policy making? - (*Acta Universitaria - Multidisciplinary scientific journal* ISSN 0188 6266 - vol 24 no 6 nov-dec 2014).
12. Nyoni, N M B & Masika, P J (2012) Village chicken production practices in the Amatola basin of the Eastern Cape Province South Africa

(African Journal of Agricultural Research - vol 7(17) pp 2647-2652 ISSN 1991-637X 5 May 2012)

13. Pienaar, B et al (2015) Evidence for climate-induced range shift in *Brachystegia* (Miombo) woodland (*South African Journal of Science* – vol 111 number 7/8 July/Aug 2015)

University of Ghana

Student research:

2013:

1. Karyn Ewurama Asmah: Implications of Climate Vulnerability on Household Water Availability: The Implications for Public Health. A Case Study of Four Rural Communities
2. Mr. Rex Gerchie: Implications of Changing Climatic Conditions on the Livelihoods of Smallholder Pineapple Farmers in Akuapim South Municipality.
3. Ruth Quaye: The Role of Institutional Support in Climate Change Adaptation amongst Smallholder Farmers in the Sissala East and West District of Ghana
4. Kassim Gawusu: Assessing the Vulnerability of Coastal Communities to the Impacts of Climate Change: A Case Study of the Anloga Community
5. Timothy Apeanti: Conserved Forests and Sustainable Livelihoods in the Face of Climate: Experiences of Fringe Communities along the Atiwa Range Forest Reserve
6. Gloria Adifu: Range of animals- vis-à-vis protected areas and what is pushing animals to come out of protected areas
7. Evelyn Amankwah: Assessing climate change impacts on ecosystem services and human livelihood: A case study of communities of the Kogyae strict nature reserve
8. Sussie Ohene-Asante: Climate change awareness and risk perception in Ghana: A case study of study of communities around the Muni-Pomadze Ramsar site
9. Eric Marvin Gbeddie: Climate Change and Water Availability from Shallow Household Wells: A Case study of Fulani, Commandos and Ashiyie in the Adenta Municipality

2013/2014

1. Irene Abeekpeng: Evaluation of the impact of the buffer zone policy on the livelihoods of people in riparian communities along the Black Volta in the Wa West District
2. Joseph Bandaana: Contribution of Flora diversity to sustainable livelihoods of organic and conservational cocoa farmers in the Atwima Mponua District
3. Deladem Kwaku Ladson: Effects of climatic variability on the livelihoods of downstream communities of the Akosombo and Kpong Dams
4. Louisa Kaboba: Vulnerability and adaptation strategies adopted by farming communities upstream of the Akosombo and Kpong Dams to cope with changing climatic conditions
5. Rahinatu Sidiki: Climate Smart Agriculture Adoption by Smallholder Farmers: A case study of Anafobiisi and Gowrie-Kunkua Communities in the Bongo District of Ghana.
6. Roger Vondi: Climate change effects on smallholder farmers' livelihoods: The case of Ejura/Sekyedumasi Municipality of the Ashanti Region of Ghana
7. Sylvester Afram Boadi: The influence of climate variability and change on the attainment of energy security in Ghana: The case of Akosombo Hydroelectric Power Project
8. Victor Parry: Assessment of sustainable livelihoods of rural cocoa farmers in the Atwima Mponua district of Ghana
9. Prince Ansah: The Socio-economic benefits of Community Based Adaptation in Ghana. The Case of the Adaptation Learning Programme (ALP) in East Mamprusi District

Research publications:

1. Egyir, I. S., Ofori, K., Antwi G. & Ntiamo-Baidu Y.(2015). Adaptive Capacity and Coping Strategies in the Face of Climate Change: A Comparative Study of Communities around Two Protected Areas in the Coastal Savanna and Transitional Zones of Ghana. *Journal of Sustainable Development*; **Vol. 8**, No. 1, 1-15
2. Ofori, B. Y., Attuquayefio, D. K., Owusu, E. H., Kyerematen, R., Musah, Y., Quartey, J. K. and Ntiamo-Baidu, Y. 2015. Seasonal changes in small mammal assemblage in Kogyae Strict Nature Reserve Ghana, *International Journal of Biodiversity Conservation* Vol. 7(4), pp. 238-244 DOI10.5897/IJBC2015.0835
3. Klutse, N.A.B., Aboagye-Antwi, F., Owusu, K. and Ntiamo-Baidu, Y. (2014) Assessment of Patterns of Climate Variables and Malaria Cases in Two Ecological Zones of Ghana. *Open Journal of Ecology*, **4**, 764-775. <http://dx.doi.org/10.4236/oje.2014.412065>
4. Kyerematen, R., Owusu, E.H., Acquah-Lamptey, D., Anderson, R.S. and Ntiamo-Baidu, Y. (2014). Species Composition and Diversity of Insects of the Kogyae Strict Nature Reserve in Ghana. *Open Journal of Ecology*, **4**, 1061-1079. <http://dx.doi.org/10.4236/oje.2014.417087>

5. Kyerematen, R., Acquah-Lampitey, D., Owusu, E. H., Anderson, R. S. and Ntiamoa-Baidu, Y. (2014). Insect Diversity of the Muni-Pomadze Ramsar Site: An Important Site for Biodiversity Conservation in Ghana. *Journal of Insects*, Volume 2014, Article ID 985684
6. Ofori B. D., Nukpezah D., Ayivor, J. S., Elaine T. Lawson, E. T. and Gordon, C. 2014. Leadership, local knowledge and water management: Lessons from fringe communities of the Kogyae Strict Nature Reserve, Ghana *International Journal of Development and Sustainability* Volume 3 Number 2: Pages 353-370, ISDS Article ID: IJDS13100101

University of Dar es Salaam

Book chapters:

1. **Kateka, A.**, (2013) A Fish and Trade Food Security Nexus: a value chain entitlement approach. In: Rytkonen, P, Bonow, M, Wramner, P. (Editors) *Fran mat production till Gastronomie* 2013. Page **77-88**. COMREC Studies in Environment and Development 7 **ISBN 978-91-975017-7-4 ISSN 1652-2877**. Available at www.sh.se/publikationer
2. O'Brien, K., M. Pelling, A. Patwardhan, S. Hallegatte, A. Maskrey, T. Oki, U. Oswald-Spring, T. Wilbanks, and P.Z. Yanda (2013): Toward a sustainable and resilient future. In: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 437-486.

Book chapters accepted for publication

Kateka, A., Mkenda, A., Lockina, L. (2014) A Poverty and Illegal fishing nexus in the Lake Victoria Fisheries In: Onyango, P.O., Sloans R., Rashid, E. (editors), 2014. *Accelerating Economic Growth and Food Security in Africa*. **Chap. 17** Accepted in February 2014 for publication in September 2014 by *Springer International Publishing AG, Cham*

Consultancy reports

1. **Yanda, P.Z.**, Mushi, D., Henku, A.I., Maganga, F, Minde, H., Malik, N., Kateka, A., Bird, N., and Tilley, H. (2013). Tanzania National Climate Change Finance Analysis. Overseas Development Institute, London and the Centre for Climate Change Studies, University of Dar es Salaam;
2. **Mabhuye, E.**, Yanda, P.Z., Liwenga, E., Masige, D., Henku, A.I., Malik, N., Kateka, A., Mujwahuzi, M., Mrema, E. (2013). Assessment of the Implementation of SADC Regional Water Policy at Country Level-Tanzania. The report submitted to the Global Water Partnerships Southern Africa;

3. **Yanda, P.Z.**, Liwenga, E., Mabhuye, E., Henku, A.I., Malik, N., Kateka, A. (2013) Climate Change Finance in the Water Sector in Tanzania. The report submitted to the Global Water Partnerships Southern Africa;
4. **Liwenga, E.**, Yanda, P.Z., Massao, C., Mabhuye, E., Henku, A.I., Malik, N., Kateka, A. (2013) Local Indigenous Knowledge Systems and Practices in Tanzania. The report submitted to the Global Water Partnerships Southern Africa;
5. **Liwenga, E.**, Mabhuye, E., Henku, I.A., Nyagawa, S., John, D. (2013) Development of KATRIN Road Map and Investment Plan - Eastern Africa Agricultural Productivity Project (EAAPP);
6. **Yanda, P.Z.** (2013): Coastal and Marine Ecosystems in a Changing Climate - The case of Tanzania. Report Submitted to the University of Rhode Island Coastal Resources Centre;
7. Neil B., Tilley, H., Canales, N. T., Tumushabe, G., Welham, B., and **Yanda, P.Z.** (2013): Measuring the effectiveness of public climate finance delivery at the national level, Overseas Development Institute.
8. **Yanda, P.Z.** (2013): Climate Change Policy and Institutional Analysis in Tanzania. Synthesis Report Submitted to Overseas Development Institute;
9. **Yanda, P.Z.** (2013): Climate Change Policy and Institutional Review on Tanzania's Agricultural Sector. Synthesis Report Submitted to the World Bank - Tanzania Office.

Number of students sponsored by OSF

Organization	# of MSc students	# of PhD Students
Mekelle University	29 graduated; 6 in progress;	none
University of DSM	4 completed; 141 in progress	14 in progress
University of Ghana	62 graduated; 22 in progress	none
University of the Witwatersrand	4 graduated; 9 in progress	2 completed; 6 in progress
University of Nigeria, Nsukka	none	none
Total:	99 graduated; 178 in progress	2 completed ; 20 in progress