

PROF RAPHAEL J. ACHOLA KAPIYO

Curriculum Vitae

2018 Edition

PERSONAL DETAILS

Full Name	-	Raphael Jacob Achola Kapiyo
Date of Birth	-	18 th March, 1955
Marital Status	-	Married
Citizenship	-	Kenyan
Languages Spoken	-	Dholuo, Kiswahili, English
Telephone	-	0722 343 984, 0738 558 373
Postal Address	-	PO Box 928, Kisumu, 40100
Email	-	rkapiyo@yahoo.com

I Am Deeply Concerned about the Sustainability of the Earth's Resources; People's Empowerment and has Zero Tolerance to Corruption. My Goal is to Work with All My Energy to Ensure all this is Achieved.

EDUCATIONAL BACKGROUND

Schools / Institution	Year	Achievement
California State Polytechnic University, Pomona, USA	1999	Computer Multimedia Presentations / Education
University of Leeds, UK	1983-1986	PhD. (Science and Technology Development and Education)
Kenyatta University	1979 – 1981	MEd. (Measurement and Evaluation)
Kenyatta University	1976 – 1979	B.Ed. (Mathematics & Physics) (First Class-Honours)

ENGAGEMENTS

2013 TO DATE

ASSOCIATE PROFESSOR/ ASSOCIATE DEAN, SCHOOL OF ENVIRONMENT AND EARTH SCIENCES, MASENO UNIVERSITY

2005 TO 2013

SENIOR LECTURER/ ASSOCIATE DEAN, SCHOOL OF ENVIRONMENT AND EARTH SCIENCES, MASENO UNIVERSITY.

2000 – 2005

SENIOR LECTURER/ CHAIRMAN, DEPARTMENT OF ENVIRONMENTAL STUDIES, MASENO UNIVERSITY
GRANT

1999 – 2000

SENIOR LECTURER, DEPARTMENT OF ENVIRONMENTAL STUDIES, MASENO UNIVERSITY

1991 – 1999

DEPUTY DIRECTOR, KENYA ENERGY AND ENVIRONMENT ORGANIZATION

1987 – 1991

LECTURER, APPROPRIATE TECHNOLOGY CENTRE, KENYATTA UNIVERSITY

1982 – 1987

TUTORIAL FELLOW, APPROPRIATE TECHNOLOGY CENTRE, KENYATTA UNIVERSITY

1979 – 1982

SCHOOL TEACHER IN LENANA HIGH SCHOOL, LIMURU GIRLS HIGH SCHOOL AND ALLIANCE HIGH SCHOOL

ALSO UNDERTOOK A MASTER OF EDUCATION STUDIES AT KENYATTA UNIVERSITY COLLEGE

SUPERVISION

MASTERS THESIS

- 1) Rono Kipng'etich Keith (2011) An Assessment of Electricity Wastage and Conservation Strategies Adopted by Selected Manufacturing Industries within Eldoret Municipality. *Master of Science in Urban Environmental Planning and Management. School of Environment and Earth Sciences, Maseno University.*
(Co-Supervisor: Prof Josephine Ngaira)

- 2) Omondi Joyce Aluoch (2012) Assessing Impacts of Nitrogen and Phosphorus in River Kisat and Quantities Discharged into Lake Victoria; Kisumu Municipality, Kenya. . *Master of Science in Urban Environmental Planning and Management. School of Environment and Earth Sciences, Maseno University.*
(Co-Supervisor: Prof Jondiko Ogoche)

PHD THESIS

- 3) Otieno Alphonse Charles (2012) Compliance and Enforcement of Environmental Policies on Natural Resources in Uganda: A Case of South Busoga Forest Reserve. *PhD in Environmental Science. School of Environment and Earth Sciences, Maseno University.*
(Co-Supervisor: Dr Boniface Oindo)
- 4) Matano Ally-Said (2013) Effects of Land Use and Land Degradation on Water Quality and Aquatic Biota in the Mara River in Kenya and Tanzania. *PhD in Environmental Science. School of Environment and Earth Sciences, Maseno University.* (Co-Supervisor: Prof Ayub V. O. Ofulla) – Thesis submitted awaiting Defence.

RESEARCH PROJECT FUNDING

- 1) USD 11,453 from The Inter-University Council for East Africa for The Lake Victoria Research Initiative. Study title “ Water Quality and its Impact on Fish Abundance and Socio-economic Wellbeing of the Riparian Communities of Lake Victoria”, 2007
- 2) USD 15,333 from The Inter-University Council for East Africa for The Lake Victoria Research Initiative. Study title “ Water Quality and its Impact on Fish Abundance and Socio-economic Wellbeing of the Riparian Communities of Lake Victoria”, 2011

ACTIVITIES

University teaching and Supervision in Environmental Studies and Undertaking Consultancies, Community Development work in Areas: Environment and Development, Environment Policy and Law, Lead Expert on EIA and Environmental Audit; Community Consultations and Empowerment, Resettlement and Compensation of Project displaced or disturbed persons, Environmental and Socio-economic Assessments of Projects, Development of Energy and Water related Projects, among others.

LEAD EXPERT – ENVIRONMENTAL IMPACT ASSESSMENT/AUDIT- NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA) –LICENCE NO. 2294

Have been involved in a number of Nation building activities as indicated below
1999 – 2005

RELEVANT EXPERIENCES

- Reviewer for proposals submitted to Commission for Higher Education (CHE) for funding and also Evaluator of their implementation within the River Catchments of Lake Victoria Basin.

- Involved in many discussions and stakeholder consultations on Nile River Basin issues and other Transboundary resources management concerns in catchments and river basins within the Lake Victoria Region
- Critical survey of the water needs, potential for sustainable management of rural water systems and capacity building for their implementation among communities on either sides of Sondu-Miriu River.
- Serving in the Board of the Lake Victoria Catchment Environmental Education Project (LVCEEP) under WWF
- Chairman of the Sub-committee of Employment and Economic Opportunities of the Sang'oro Hydropower project
- Secretary of the Technical Committee on Sondu Miriu Hydropower Project. The Committee to Maintain Regular Monitoring of the Implementation of the Project and Maintain Harmony Between the Community And The Project.
- Chairman, Environmental Committee of Sondu Miriu Hydropower Project, carrying Regular Monitoring to Ensure No Negative Impacts arise which could Affect People and their Ecosystem.
- Member of the Nile Basin University Environmental Education Lecturers Network working to Cultivate Appreciation and action on Environmental Threats of the Nile Basin at University Level.
- Worked on Vulnerability Mapping of poverty and climate change in the Lake Victoria Basin with the Institute of Law and Environmental Governance (ILEG).
- Initiated an Organization in Nyando district called NYADEC and working very hard with its Members to Reduce and Reclaim Gullies within the Nyando River basin of the Lake Victoria Basin using the Concept of Gully Trust.
- Set Up an NGO called UHAI Lake Forum and working with its Members to Empower Communities around Lake Victoria to take Full Responsibility to Rehabilitate and Effectively Manage the Fisheries and Waters of the Lake. One major activity that UHAI is well known for is holding the Annual Lake Victoria Day during the Month of April. It has Yielded Useful Impacts in Natural Resource Management.
- Have Initiated an Elders Movement Among the Luo Community for Improved Management of the Natural Resources of the Lake Victoria Basin.
- Set Up an Environmental Students Association at Maseno University which is now a Vehicle for Students to Actively Participate in Environmental Conservation Activities in the Local Catchment.
- Worked with Communities Around Wire Hill forest to Set Up an Organization to Rehabilitate the Catchment and Reduce Catchment Degradation Towards The Lake.
- Initiated and coordinated the setting up of Friends of Lake Victoria(OSIENALA)

- Lectures in the areas of Environmental Ethics, Environmental Policy and Law, Strategies for Natural Resource Management, Indigenous Knowledge Systems In Natural Resource Conservation and Environmental Education.
- Very Closely Involved with Activities on the Decade for Education for Sustainable Development (DESD) having been invited to Sweden at its Inception in 2004.
- Was a Reviewer of Proposals for funding by VicRes but now is a Researcher in Water Quality and Fish Abundance in the Lake Victoria Region.
- Developed Community Action Plans for Nyando River Basin Flood Control with Uhai Lake Forum with support from Jica.
- Lectures Undergraduates on Environmental Concepts Issues and Concerns Targeting Improved Management of Environmental Resources.
- Supervised Environmental Projects and Theses at Maseno University for Undergraduate and Post-Graduate Students up to PhD Level.
- External Examination of Masters and PhD Thesis on Research topics on Lake Victoria Resources Management and Environmental Issues in general.
- With UHAI Lake Forum, Mobilizes Communities In the Kenyan Lake Victoria Region In their Sub-Regions From Muhuru Bay to Port Victoria to Improve Fisheries and Wetland Resource Management through Campaigns and Public Education (on Recess Period for the Lake Victoria, Preservation of Fish Breeding Areas, Reduced Pollution, Fish Pricing, Use of Appropriate Fishing Gears, etc).

1991 – 1999

- Worked on a full time basis from 1991 – 1999 with the Kenya Energy and Environmental Organizations (KENGO) as Deputy Director and Head of Programmes.
- Serving as a Regional Co-ordinator, Uhai Lake Victoria Regional Forum and member of Policy Management Committee of KENGO.
- Maintained Lecturing and Supervision of Undergraduate and Post Graduate Students Within the Department of Environmental Studies, Kenyatta University and Supervision of Foreign Students on Environment and Attachments.
- Served in Various Capacities as Head of Research, Innovation and Technology Development; Programme Manager; Biomass Energy Programme; Deputy Director of the Institution.

- Designed, Developed and Tested Various Appropriate Technologies, Renewable Energy Technologies Particularly Improved Biomass Energy Technologies (Kenya Institution Jiko I And II, Uhai Jiko, Saw Dust Carbonization Kiln, Carbonized Saw Dust Press).
- Conducted Training Programmes (Biomass Energy, Land Use Management and Extension and Renewable Energy Technologies), Developing Training Course Curricula and Relevant Course Materials.
- Promoting Technology Development, Marketing and Diffusion at Community Level Based on Their Indigenous Creativity and Innovation.
- Development and Implementation of Community Based Education Programmes for Self-Help Groups, Youth Groups and Women Groups.
- Community/Grassroots Mobilization, Active Participation and Empowerment through the Regional “UHAI” Forums for The Management, Conservation, Utilization and Protection of their Natural Resource Base.
- Participated In Local and International Consultations and Conferences.
- Won a Distinguished Creativity and Commitment Awards for Research in Livelihood Technologies, KENGO, Kenya.
- Participated in the Writing of Constitutions and Manifesto For NGO’s And CBO’s.
- Carried Out Problem Based Needs Assessment for Grassroots Organizations to Refine a Vision and Development Agenda/Programs.
- Carrying out Monitoring and Evaluation of Community/Grassroots Based Programmes Related to Natural Resources Management.
- Involved in initiating Post-graduate Eco-Volunteer Scheme (KECOS) and Overseeing Its Implementation and Management.
- Running and Supervising Environmentally Related Internships and Attachment Programmes For Students From Local And Foreign Universities.
- Worked With Refugees Within Kenya (Dadaab/Garissa And Tanzania (Benaco Camp, Kagera Region) And Also Drought Displaced Communities to Help Improve their Quality Of Life.
- Active in Gender Issues and has Participated and Trained In a Number of Gender Workshops Including Teaching Gender and Environmental Course at Maseno University.

- Participated In Consultancies In a Number of Issues Areas In Natural Resources Management and Environmental Concerns.
- Contributed and Authored Monographs, Newsletters, Journals and a Book.
- Presented Radio and TV Programmes on Renewable Energy and Other Topical Environmental Issues.
- Got a Special Award for Contribution to Research In Technology Development, Eindhoven University, The Netherlands.
- Organized A Two-Day Open Day/Workshop In Kisumu which Created Friends of Lake Victoria (OSIENALA) a Regional Forum Tackle Community Based Problems around Lake Victoria Basin.
- Supervised Masters and PhD Degree theses in the areas of Appropriate Technology, Home Science, Environmental Science and Technology Education at Kenyatta University.
- Research Associate of Maseno University College.

1981 – 1991

- Lecturer / Research Fellow, Appropriate Technology Centre, Kenyatta University
- Designed, Developed, Tested and Diffused Appropriate Technologies Amongst Communities (Sisal – Cement Roofing Tiles, Kenya Ceramic Jiko, Maendeleo / Upesi Jiko, Kuni Mbili Jiko).
- Carried Out Research In Various Fields of Technology Education, Appropriate Technology and Environment Concerns.
- Offered Lectures To Undergraduate and Post-Graduate Students In Appropriate Technology, Science and Technology Education, Technology and Environment In the Departments of Appropriate Technology, Environmental Education; Home Economics Of Kenyatta University.
- Consultations for Some Development Organizations.
- Acting Director of Appropriate Technology Centre, Kenyatta University
- Served on the Executive Board of KENGO.
- Undertook my PhD Degree Studies in the Period 1983 – 1986 Leeds University, U.K.
- Participated In the Initiation, Support and Development Of KENGO from 1981.
- Served In the Committee that Set Up the Department of Environmental Education at Kenyatta University College.

1979 – 1982

- Taught Mathematics and Physics at Lenana, Alliance and Limuru Girls High schools.
- Did a Master Degree In the Period 1979 – 1981.
- Participated and Presented Papers In Seminars on Technology Education and Natural Resource Management.
- Wrote Articles on Indigenous Technological Capacity

PUBLICATIONS ,CONSULTANCIES UNDERTAKEN AND CONFERENCES ATTENDED

Matano, Ally-Said, Anyona, D. N., Owuor, P. O., Abuom, P. O., Dida, G. O., **Kapiyo, R.**, And Ofulla, A. V. O. (2013) Effects of Land Use Types on the Levels of Microbial Contamination Based on Total Coliform and *Escherischia coli* counts on the Mara River, East Africa. *African Journal of Tropical Hydrobiology and Fisheries* **13: 5-11**

Owiti, D. O., **Kapiyo, R. A.** And Bosire, E. K. (2013) Status of the Sondu-Miriu River Fish Species Diversity and Fisheries: Sondu-Miriu Hydro-Power Project (SMHPP) Operations. *Journal of Ecology and the Natural Environment*. August 2013, Vol 5 No 8: 81-88

Otieno, A.C., **Kapiyo, R.A.**, Oindo, B.O. and Buyinza, M. (2012), Local communities and compliance with the forestry policy: Perspective from South Busoga Central Forest Reserve, Muyage District, Eastern Uganda. *Research Journal of Applied Sciences*, **7(8): 397-408**.

Otieno, C. A., **Kapiyo, R. A.**, Oindo, B. O. And Buyinza, M. (2012) Government Regulatory System and Compliance with Forestry Policy in South Busoga Forest Reserve, Mayuge District, Uganda. *Environmental Research Journal*, **6(4): 293-303, 2012**.

Otieno, C. A., **Kapiyo, R. A.**, Oindo, B. O. And Buyinza, M. (2012) Politician and the Enforcement of the Uganda Forestry Policy 2001: Lessons from South Busoga Central Forest Reserve, Mayuge District, Eastern Uganda. *Environmental Research Journal*, **6(3): 217-227, 2012**.

Muyodi, F. J. and **Kapiyo, R.** (2012) Beach Community-Designed System To Ameliorate Water Quality Deterioration in Catchments of Lake Victoria. *The Open Environmental Engineering Journal*, **5, 84-95,2012**

Otieno, C. A., **Kapiyo, R. A.**, Oindo, B. O. And Buyinza, M. (2012) Uganda National Forestry Authority and Enforcement of Forestry Policy 2011: A Case of South Busoga Forest Reserve, Mayuge District, Eastern Uganda. *Environmental Research Journal*, **6(3): 206-216, 2012**.

Otieno, C. A., **Kapiyo, R. A.**, Oindo, B. O. And Buyinza, M. (2012) Compliance and Enforcement of Environmental Policies on Natural Resources in Uganda: Perspectives from South Busoga Forest Reserve. *Environmental Research Journal*, **6(2): 81-93, 2012**.

Muyodi, F. J., Mwanuzi, F. L. and **Kapiyo, R. J. A. (2011)** Environmental Quality and Fish Communities in Selected Catchments of Lake Victoria. *The Open Environmental Engineering Journal*, 4, 54 – 65, 2011

Kapiyo, R. J. A.; Abuom, P. O. And Onyango, L. (2011) Development of the Magwagwa Multipurpose Dam Project Resettlement Action Plan. *SMEC International/ Lake Basin Development Authority*. Nyanza province.

Kapiyo, R. J. A. (2010) Vulnerability of the populations in the Lake Victoria Basin to Climate Change and viability of their coping strategies. *Lake Victoria Basin Commission*. Kisumu

Kapiyo, R. J. A. (2010) Development of a Metadatabase of Existing Documentation relevant to the Water Sector Development and Management in Gucha-Migori River Basin. Nile Equatorial Lakes Subsidiary Action Program (NELSAP), Nile Basin Initiative.

Owiti, D. O., Kapiyo, R. J. A. and Bosire, E. K. (2010) Assessment of Fish Species Varieties, Stock and Habitat Preference in the Sondu-Miriu River by 2010. *KenGen Publications*, Kenya

Kapiyo, R. J. A., Bosire, E. K. and Owiti, D. O. (2010) The Status of River Sondu-Miriu Fisheries and Fishing Activities in 2010. *KenGen Publications*, Kenya

Muyodi, F. J., Mwanuzi, F. L., Keizire, B., Kapiyo, R. J. A., Mbabazi, D. and Mpaata, E. (2009) Influence of Water Quality on fish species composition, abundance and distribution in Lake Victoria. In Noble, B., Isabirye, P., Onywere, S., Nampala, P. and Tenywa, J. P. (Eds) (2009) Integrated Risk Assessment and Management of Pollutants in Lake Victoria Basin. *Lake Victoria Research Initiative Proceedings*, pp 251- 264. *Vicres, Kampala*.

Kapiyo, R. J. A. (2009). An Assessment of the Viability and Potential for the Production of Furniture, Paper and Cosmetic Accessories from Water Hyacinth around the Shore of Lake Victoria. *WIFIP*, Kenya.

Kapiyo, R. J. A. (2009). A Study of the Socio-economic and Technical Impacts of electric power Transmission Line of the Sondu-Miriu Hydropower Project. *KenGen*, Kenya.

Kapiyo, R. J. A. and Kibwage, J. K., (2009). An analysis of the Socio-Cultural Issues of Tobacco and Bamboo among the Luo and Kuria communities of Southern Nyanza, Kenya.

Mwanuzi, F. L.; Kapiyo, R. J. A.; Muyodi, F. J. and Keizire, B. B. (2008). Water Quality and its impact on fish abundance and socio-economic well being of the riparian communities of Lake Victoria. (Three year research project funded by Vicres, Inter University Council of East Africa)

Kapiyo, R. J. A. (2008). The Impact of the Technical Committee of the Sondu Miriu Hydropower Project in Community - Project Relationship during Project Implementation, *KenGen*, Kenya.

Kibwage, J. K., Netondo, G., and Kapiyo, R. J. A., (2008). Diversification of Household Livelihood Strategies for Tobacco Small-holder Farmers: A Case Study of Introducing Bamboo in South Nyanza Region, Kenya. *IDRC, Ottawa, Canada*.

Kapiyo, R. J. A. and Ong’or, D. O (2008) Community based adaptation and mitigation of flooding and the effects of climate change in the Nyando River basin. Uhai Lake Forum and JICA.

Kapiyo, R. J. A. (2007). Community Roles in the Management of the River Yala Wetlands, Reconcile, Nakuru, Kenya.

Kapiyo, R. J. A. (2007). A Study of the Impact of traffic flow and density along Nairobi road between Kisumu town and Ahero on flooding in the Nyando river basin. *Jiva*, Nairobi

Kapiyo, R. J. A., Omondi, A., Oloko, M. and Oswago, R. O., (2006). The Potential for Sustainability of a Rural Water Supply Scheme and their implementation in the Left and Right Banks of River Sondu Miriu In The Depleted Area, *Nippon Koei Co. Ltd.*, Kenya

Kapiyo, R. J. A., (2005). Environmental and Socio-Economic Monitoring of the Transmission Line of the Sondu Miriu Hydropower Project. *Nippon Koei Co. Ltd*, Kenya

Kapiyo, R. J. A., (2005). The Challenge of Environmental Management in the Lake Victoria Basin: The Role of the Eco-Cultural Model In Restoring Wealth and Livelihood Security. *Jaramogi Oginga Odinga Foundation Symposium, Kisumu, Kenya*

Kapiyo, R. J. A, Abila R.O., and Asila, J., (2004). From Tobacco to Fish: A Socioeconomic Assessment of the Potential for Diversification from Tobacco to Production of Wood Fuel for Fish Processing in Western Kenya. IDRC, *RITC – Canadian Tobacco Control Research Initiative Publications*, Ottawa, Canada.

Kapiyo, R. J. A., (2004). UHAI Philosophy and Principles for Natural Resource Management Relevance for Education for Sustainable Development. Presented in a Conference on Education for Sustainable Development. Kungälv Sweden (13 –19 October, 2004)

Kapiyo, R. J. A., (2004). “Environmental Studies Programme at Maseno University: Perspectives for Education for Sustainable Development”. Global Conference on education for Sustainable development held at Chalmers/Gothenborg University Sweden in May 2004

Kapiyo, R. J. A., (2004), “Existing Treaties on the Nile”. Consultative Workshop on the Nile Water Resources 10-20 May 2004, Nile Basin Initiative, Kenya School of Monetary Studies.

Willoughby, N. **Kapiyo R.**, Mugo, J. Owiti, D. (2003). The Implications of the Sondu Miriu Hydropower Project (Kenya) for Fisheries and Fishing Communities ***The Land 7.1 p3-20***

Kapiyo R. J. A., and Asila, J. (2003). Power Relations In Tobacco Production In Nyanza Province (Kuria, Migori And Rangwe) With Particular Reference To The Impact On Women. *Women Health Programme*, University of Witwatersrand, S. A.

Kapiyo R. J. A., Kibwage, J. K and Abila, R.O (2003). The Status of Fishing and Fisheries of the Sondu-Miriu River, *KenGen*, Kenya.

Kapiyo R. J. A. (2002). "Economic Transformation of Nile Riparian Communities: Responsibility Taking and Benefit Sharing in the Nile River Basin." A Keynote Paper Presented to the 9th Nile 2002 Conference, Kenya College for Communications Technology (KCCIT) 7th to 9th October, 2002, Nairobi. Available at <http://www.nbi.org>

Kapiyo R. J. A. (2002). "Lake Victoria Day: Livelihoods at Risk; My Action My Responsibility". UHAI Lake Forum, Kisumu.

Ong'or D. O., Ongwae T. A., Omondi M. O., and Kapiyo, R. J. A. (2001). **Community Conservation Initiatives Towards Livelihood Security In The Lake Victoria Basin: Issues, Problems And Opportunities.** UHAI Lake Forum, Kisumu, Kenya.

Kapiyo, R. J. A. (2001) Educating for the Environment: Implication for Curriculum Design and Development. Environmental Action Learning / ECO Schools Capacity Development Seminar, Mombasa, Kenya.

Kapiyo, R. J. A. (2001). "Lake Victoria Day, Livelihood at Risk: Be the solution, UHAI Lake Forum

Kapiyo, R. J. A. (2000). "Lake Victoria Day, Livelihood at Risk: What are you doing?", UHAI Lake Forum.

Kapiyo, R. J. A. (1998). "Community Participation in Environmental Impact Assessment", Machakos Kenya.

Kapiyo, R. J. A. (1998). Carbonization of Saw Dust and Briquetting Of The Resulting Coal Dust, Swiss Contact Kampala, Uganda.

Kapiyo, R. J. A. (1997). An Investigation Into Factors That Influence Ownership Of Land By Women in Awendo Sugar belt African Centre of Women, Ethiopia.

Awori A. J., Kapiyo, R. J. A. and Karinge P. G. (1996). **UHAI: The Eco-Cultural Model for Sustainable Livelihoods and Natural resource Management in Africa.** KENGO, Nairobi.

Kapiyo, R. J. A. (1996). "Principles of UHAI Model", Friends of the Earth International, Leeds, United Kingdom.

Kapiyo, R. J. A. (1996). African Women Leaders in Agriculture and Environment (AWLAE), Five Year Action Plan presented at Pan-African Conference on Women Leadership in Agriculture and Environment, Addis Ababa, Ethiopia.

Kapiyo, R. J. A. (1996). "Technology Education and Sustainable Livelihoods: A Critical Growth Path in Africa". *PATT Sweden*, Linkoping University.

Kapiyo, R. J. A. (1996). Indigenous Sports, Games and Sayings. Festivals of Living Traditions, Nairobi.

- Kapiyo, R. J. A. (1995). “KENGO’s New Framework “UHAI” for Participation and Empowerment”, Nangbeto, Togo.
- Kapiyo, R. J. A. (1995). “Participatory Research Methodology” – Africa Development Fund (ADF), Mrewa , Zimbabwe.
- Kapiyo, R. J. A. (1994). Research, Innovation and Quality Control: A Case of Energy Technologies within the Jua Kali Sector, Jua Kali Symposium and Exhibition, Nakuru, Kenya.
- Kapiyo, R. J. A. (1994). African ‘Science’ and ‘Technologies’, *Resources Journal*, Vol. 5 No. 1 p34-36.
- Kapiyo, R. J. A. (1994). “Linking Science to Problems of Target Groups by African non-Governmental Organizations”, Presented at the Traditional Techniques of Micro-climate Improvement, ICRAF, headquarters, Nairobi.
- Kapiyo, R. J. A. (1994). “The Fusion of Traditional Wisdom and Modern Technology in Natural Resources Use and Management”, CODEL Consultation Workshop, Action Aid Centre Kiboswa, Kisumu, Kenya.
- Kapiyo R. J. A. (1994). Promoting the Indigenous Knowledge: Practices and Appropriate Technologies used in Fresh Water Resources. In Aggriwaly N and Sendama, A. (Ed) (1994) *African Fresh Water Resources: Challenges For The 90s And Beyond*. Regional Workshop, Africa Water Network and UNEP, Nairobi. P 46-49
- Kapiyo, R. J. A. (1993). “Kitchen Pollution; What Household Owners Say”. Clean Air Challenges for South Africa.
- Kapiyo R. J. A. (1993). Combating Environmental Degradation through Technology Education: Case Experience of the Kenya Energy and Environment Organization. In Mottier I, Raat, J and De Vries, M (1993) *Technology Education and the Environment*; Pedagogical Technical College, The Netherlands. P 370-379.
- Kapiyo R. J. A. (1992). Technology Education in Democratic Kenya: Approaches to Popularize, Implement and Strengthen Technology Education in Schools and within Communities. In Blandow, D and Dyvenfurth, M (1992), *Technological Literacy, Competence and Innovation in Human Resource Development*. International Conference on Technology Education, Weimer Germany.
- Kapiyo, R. J. A. (1992). “Energy, Environment and Poverty in Developing Countries”, Madrid, Spain
- Kapiyo, R. J. A. (1992). “Poverty, Technology and Environment: Reflections and Experiences from Grassroots / Community Level activities” New Delhi, India.
- Kapiyo, R. J. A. (1992). “Bio-energy Issues for future Development and Possibilities with Improved Institutional Stoves.” The Kenya Forestry Master Plan, Nairobi.

- Kapiyo, R. J. A. (1992). “Kenya Ethnic Communities: How They Lived In Balance With Nature The Changes Of Today And Factors To Consider In Development Work”. The Kenya Forestry Master Plan, Nairobi.
- Kapiyo R. J. A. (1991). Appropriate Technology and Home Economics. In. Van der Vynckt and Sachs – Israel, M (1991): *Curriculum Reorientation in Rural Development: Implications for Home Economics*_UNESCO Paris. P 123-134.
- Kapiyo, R. J. A. (1991). Energy: Identifying African Priorities: *Resources Journal* Vol. 2 No. 2, 1991
- Kapiyo, R. J. A. (1991). Indigenous Technologies in a Modern World, *Resources Journal* Vol. No. 1, 1991. p 4-6
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- Kapiyo, R. J. A. (1990). “Appropriate Technology and Home Economics”, UNESCO, Kenya.
- Kapiyo, R. J. A. (1990). “The Use of Computer for R & D Management for Developing Countries”, Mombasa, Kenya.
- Kapiyo, R. J. A. (1990). “Development of Kenya Technology Policy to Aid Small Scale Industrial Development in Kenya”, Kericho, Kenya.
- Kapiyo, R. J. A. (1989). “Diffusion of Technology in the Jua Kali Sector (Small Scale Business/Informal Sector)”, Eldoret, Kenya.
- Kapiyo, R. J. A. (1989). “Urban Stove Development and Dissemination”, Negombo, Sri-Lanka.
- Kapiyo, R. J. A. (1989). “An Evaluation of the Role of KENGO in National Energy Development and Implication for National Energy Planning”; Lusaka, Zambia.
- Kapiyo R. J. A. (1989). Technology at the Teacher Training Institutions in Kenya: Is it there? In Wolters, D. Mottier, I, Raat, J. and De Vries, M. (1989). *Teacher Education for School Technology*. Pedagogical Technological College, Eindhoven The Netherlands. P 433-448.
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- Othieno, H and Kapiyo, R. J. A. (1988). Processes of Technology Transfer: Some Critical Issues in Developing Countries. In *Technological Innovation*, World Association of Industrial and Technological Research Organizations (WAITRO) International Conference, Trinidad and Tobago.
- Kapiyo, R. J. A. (1988). Science Education is the Essence of Technological Development of a Nation. In Staff Development Seminar (1988). *Science Teacher Education for National Development*_, Kenya Science Teachers College, Nairobi

- Kapiyo, R. J. A. (1988) “The Kenya Ceramic Jiko (KCJ) and Lessons Learnt from it: A review Document”. Appropriate Technology Centre, Kenyatta University, Nairobi.
- Kapiyo R. J. A. (1988). PATT Research and Relevance of PATT: Perspectives from Developing Countries especially from Africa. In De Vries, M; Raat, J, Van Den Bergh, and Wolters, D (1988) *Basic Principles of School Technology*_ Eindhoven University of Technology. P 272-284.
- Kapiyo, R. J. A. (1988). The Role of Science in the Technological Advancement of a Nation. Kenya Science Teachers College, Nairobi, Kenya.
- Kapiyo, R. J. A. (1987). “Stove for People”, Antigua, Guatemala.
- Kapiyo R. J. A. (1987). 14/15 Year Old Pupil’s Concept of Technology in Rural and Urban Kenya. In Den Bergh, R.C. (Ed) (1987) *Pupils Attitude Towards Technology (PATT)*, Eindhoven University of Technology, The Netherlands. P 89-94.
- Kapiyo, R. J. A. and Otieno, F (1986). Some factors in the Measurement of Pupil’s Attitude to Technology in a Third World Content: Highlights from Kenya. In Raat, Jan and DeVries, M(Eds) (1986). *What do Girls and Boys Think of Technology*._ Eindhoven University of Technology, Netherlands p 82-89.
- Kapiyo, R. J. A. (1986). Technology in the School Curriculum in Kenya. Unpublished PhD Thesis, Leeds University, UK
- Kapiyo, R. J. A. (1986). “Prospects of Technology Education in Kenya”, The British Council, London, United Kingdom.
- Kapiyo, R. J. A. (1986). “The Changing face of Physics Education in Kenyan Secondary Schools”, Sophia University, Tokyo, Japan.
- Kapiyo, R. J. A. (1985). Women Science and Technology, *Kengo News*, Vol.1, No.3 P 28
- Kapiyo, R. J. A. (1985). Stove Design and Dissemination”; Eindhoven University of Technology, The Netherlands.
- Kapiyo, R. J. A. (1985). Science and Technology Education and Future Human Needs: Perspectives from Kenya”: 7-14 August, 1985 Bangalore, India.
- Kapiyo, R. J. A. (1984). “The Social and Political Impact of New Technologies and Technology Development among Rural Communities”. University of Leeds, United Kingdom.
- Kapiyo, R. J. A. (1984). “Education Evaluation in Developing Countries”, University of Leeds, United Kingdom.

Kapiyo, R. J. A. (1984). Energy and Rural Communities: How They Understand Its Impact”, University of Leeds, United Kingdom.

Kapiyo, R. J. A. (1983). “Disseminating Science and Appropriate Technology: Approaches and Issues”. A paper presented at the Seminar on Science, technology and Education research in Eastern Africa held at the International Development Research Centre (IDRC), Nairobi, January 10 – 12, 1983.

Kapiyo, R. J. A. (1981) Science and Technology for Development: Nairobi, Kenya.

ENVIRONMENTALLY SOUND TECHNOLOGIES DESIGNED AND PRODUCED

1998	Carbonized Sawdust Briquetting Press, Swiss Contact – Uganda.
1998	Sawdust Carbonization Kiln (Swiss Contact – Uganda)
1996/ 2006	Uhai Jiko, KENGO / UHAI Lake Forum/ Maseno University
1989 / 91	Kenya Institutional Jiko II, KENGO
1987 / 89	Kenya Institutional Jiko I, KENGO
1984 – 85	Fish Smoking Kilns
1984 – 85	Maendeleo Jiko, Kenyatta University / KENGO
1984 / 85	Kuni Mbili Jiko, Kenyatta University / KENGO
1982	Kenya Ceramic Jiko, Kenyatta University / KENGO
1978	Sisal/Cement Roofing Tiles, Kenyatta University.

OTHER RESEARCH EXPERIENCE / CONSULTANCIES UNDERTAKEN

- Investigation into The Environmental Impacts of the Sondu Miriu Hydropower Project on the Local Communities and the General Eco System.
- Development of the Resettlement Action Plan for the Magwagwa Multipurpose Dam Project for SMEC International/ Lake Basin Development Authority
- Development of a Community driven two Rural Water Supply Project for the communities in the Left and Right banks of River Sondu Miriu by Ken Gen.
- Development and Testing of Saw Dust Carbonization Kiln and Briquetting Hand Press and to Train Users, Swiss Contact, Uganda.

- Cross-Sectoral Socio-Economic, and Ecological Study on Wood-Based Energy Dynamics In Sanaag, Bari, Benadir (North Mogadishu) and Middle Shabelle Region of Somalia (Support from IUCN via ETC – EA)
- Proposals for Measures to Investigate the Impact of Refugees on The Environment and Settlement That Contribute to Sustainable Development in Kagera Region, Tanzania – UNDP / Habitat Task Force On The Continuum from Relief to Development.
- Impact/Needs Assessment of Local Communities, Urban Households Local and International agencies and Government Departments as Regards Development Issues of Northern Kenya, MSF – Spain, KENGO and Crescent of Hope.
- Needs Assessment of the Energy and Environmental Impact of Drought Displaced Persons in Garissa District, North Eastern Province, MSF – Spain.
- Impact / Needs Assessment of Households and Small Scale Industries and the Energy Supply Situation Of Refugees Within Dadaab Complex of Refugee Camps (15,000 Refugees), Garissa District Kenya, UNHCR/GTZ.
- Technical Review Committee of the Environmental Assessment Study for Power Development Projects, North East Olkaria and Eburru Geothermal Resources, The Kenya Power Company Limited.
- Cost-impact Analysis as a Tool in the Evaluation of Socio-Economic and Technological Impact of Rural Development Programmes on Local Communities. Development of a Criterion for Transplanting Economic and Technical Impact of Projects Into Measurable Quantitative Items for Sound Comparison and Accountability.
- Self-training Methodology for Community Motivation and Needs Assessment among Pottery Women Groups In Nyanza and Western Provinces Of Kenya, ITDG.
- Field Testing of Four Improved Stove Designs In Five Districts of Kenya to Evaluate the Social, Economic, Cultural and Technical Factors that Influence Adoption of Technologies among the Communities, Intermediate Technology and KENGO.
- The Socio-Economic and Cultural Factors In Technology Development Among a Selection Of Kenyan Communities, KENGO, Kenya.
- The Impact of Science and Technology on Women in Kenya 1975 – 1985, Bureau of Educational research, Kenyatta University.
- Evaluation of five Organizations (E.G. Turkana Rehabilitation Project) to be Ssisted by the Organization of the Netherlands Volunteers (ONV): the Social, Environmental and Technological Dimensions, CDP, Nairobi.

- A Field Test Study to Evaluate The Socio-Economic and Technology Impact of The Kenyan Improved Stove among Urban and Peri-Urban Communities In Nairobi and Mombasa, Ministry Of Energy, Kenya.
- An Inventory of Kenyan Organizations involved with Charcoal, Wood and Sawdust Stoves, CDP, Nairobi.
- An Evaluation of the Social, Economic and Technical aspects of Wood Stove Dissemination among four Grassroots Organizations in Four Districts in Kenya, CDP, Nairobi.
- An Illustrative Study of the Socio-Economic Impact of Wood Fuel Utilization In Kakamega District, Kenya, Beijer Institute, Sweden
- National Environmental Management Authority (NEMA) on Education for Sustainable Development and the Kenyan School Curriculum.
- Appointed by Permanent Secretary, Ministry of Environment as a member of the Task Force on Lake Victoria Vision and Strategy Development. The next 15 Years
- Nyakach Cultural and Development Day Targeting Community Responsibility for Natural Resource Management, Katito, Kenya.
- Community mobilization for Environmental Management in Lumbwa Village, Nyando District.
- Participatory Environmental Resource Assessment With Indigenous Experts Within Sondu Miriu (Nyakach) Sub-region of the Lake Victoria Basin.
- Establishment of Western Kenya NGOs network on Natural and Environmental Resource Management, Kisumu, Kenya.
- Participation of Male Gender in the Promotion of Gender Equity in Agriculture and Environment, Winrock International, Nairobi.
- Framework for the Lake Victoria Environmental Management Programme, (LVEMP), Kisumu.
- Preparation of the festival of living traditions, ELCI, Nairobi
- Environmental and land policy and law in Kenya, KENGO, Nairobi.
- Consultative committee for the environmental impact assessment of Geothermal Stations in Kenya. IPS/RPS, Kenya Power & Lighting Co. Limited.
- Asian Conference in Appropriate Technology and Sustainable Development; New Delhi, India.

- The Second International Fair on People's Creativity, Alternative Technologies and Environment, Santiago, Chile.
- African NGOs strategic reflection, Bulawayo, Zimbabwe.
- Marketing of the management and planning group of the energy network, Dakar, Senegal.
- Consultation Workshop in NGO self – financing in third world countries; Addis Ababa, Ethiopia.
- Advisor / Training on Production and Dissemination Of Improves Stoves in Zaire, CATEB, Kinshasa, Zaire.
- The National Technician Training Programme; UNESCO, Nairobi.
- Science and technology Education in Kenya; Consultative meeting; The British Council / World Bank, Nairobi, Kenya.
- Technological Education in Africa; Ministry of International Affairs, The Hague, The Netherlands.
- The Expansion of Village Polytechnics to Incorporate Wood Energy Technologies, KENGO, Kenya.
- Technology Education in Kenya; The British Council, London
- Cost-Impact Analysis as a Tool in The Evaluation of Socio-Economic and Technical Impact of Rural Development Programme On Local Communities. Developing Criteria for Translating Economic and Technical Impact Of Projects Into Measurable Quantitative Item For Sound Comparison and Accountability.
- Self-Training Methodology for Community Motivation and Needs Assessment among Pottery Women Group in Nyanza and Western Provinces in Kenya, ITDG.
- Field Testing of Four Improved Stove Designs in Five Districts of Kenya To Evaluate The Social, Economic, Cultural And Technical Factors that Influence Adoption Of Technologies among the Community, Intermediate Technology And KENGO.
- The Socio-Economic and Cultural Factors in Technology Development among a Selection of Kenyan Communities.
- The Impact of Science and Technology on Women in Kenya 1975 – 1985, Bureau of Education Research, Kenyatta University.

- Evaluation on five organizations (e.g. Turkana Rehabilitation Project) to be assisted by the Organization of the Netherland Volunteers (ONV): the Social, Environmental and Technological dimensions.
- A Field Test Study to Evaluate the Socio-Economic and Technology Impact Of The Kenyan Improved Stove And Urban and Peri-Urban Communities In Nairobi And Mombasa.
- An Inventory of Kenyan Organization Involved With Charcoal, Wood and Saw Dust Stoves.
- An Evaluation of The Social, Economic And Technical Aspects Of Wood Stove Dissemination among Four Grass Roots Organizations In Four Districts In Kenya.
- An Illustrative Study of The Socio-Economic Impact Of Wood Fuel Utilization In Kakamega District, Kenya.
- Ability And Achievement of Mathematical Concepts Amongst Children Of 12 – 15 Years Age Group.

COMMUNITY ACTIVITIES ORGANIZED

- Nyakach Cultural and Development Day “Working Towards Support For Orphanhood”, Nyakach Elders, Kusa, Kenya.
- Lake Victoria Day – 2002, “Livelihood At Risk; My Actions My Responsibility, Marenga Beach, Port Victoria Kenya.
- Lake Victoria Day – 2001 – Koginga Beach Homabay Livelihood At Risk; Be The Solution, UHAI Lake Forum, Kisumu.
- Lake Victoria Day – 2000 – Dunga Beach – Livelihood At Risk; What Are You Doing? UHAI Lake Forum, Kisumu.
- UHAI Lake Forum 1999; - Environmental Resources and Livelihood Security Around Lake Victoria Basin, Action Aid Kenya, Kiboswa, Kenya.
- Mobilization To Workshops For Eco-Cultural Forum Formation for The Nyika and Lake Victoria Religions, KENGO, Kenya.
- Forum for The Lake Victoria Region Meeting Theme: “Save Lake Victoria” For the Tenth Anniversary Celebration Of KENGO. This Led To The Creation Of OSIENALA (Friends Of Lake Victoria).
- Curriculum and Social – Cultural Issue in Appropriate Technology Education. The Africa Regional Workshop on Technology Education, Nairobi, Kenya.

- Income Generation Techniques and Strategies for Small Scale Enterprises Through Locally Available Skills And Materials. Nairobi, Kenya.
- Techniques of Needs Assessment and the Identification Of Community Development Problems, Nairobi, Kenya.
- Training of Informal Sector Artisans to Introduce Marketable Biomass Energy Technologies; Nairobi, Kenya.
- Technology Education; Meaning, Nature and Relevance To Development; International Conference Held In Nairobi, Kenya.
- How to Obtain Data From Rural Communities, KENGO; Nairobi, Kenya.
- Optimization of Stove Performance And Utilization Development Workers From Somalia; Nairobi, Kenya.
- Rural Farm Structures and Energy Resources For Selected African Student, FAO, Nairobi.

FACT FINDING MISSIONS ORGANIZED

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| 1990 | Lake Basin Development Authority (Agriculture and Land Reclamation), Appropriate Technology Centre , Kenyatta University (Staff and Students). |
| 1989 | Kerio Valley Development Authority (Irrigation, Mining and Power Generation Project) Appropriate Technology Centre, Kenyatta University (Staff and Students). |
| 1998 | Bura Irrigation and Settlement Scheme Project, Appropriate Technology Centre, Kenyatta University (Staff and Students) |

TEACHING AND SUPERVISION

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| 1981 to date | Supervises PhD and Masters Degrees; Teaches and Supervises Undergraduate students. The Masters and PhD students worked in the areas of Appropriate Technologies, Project Planning and Environmental Ethics. |
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AWARDS

- 2009 Environmental Leadership Award of the Eastern Africa Environmental Network in recognition and appreciation of outstanding contributions to Environmental conservation in Eastern Africa
- Recognition Award in grateful appreciation for consistent exemplary services as a Board of Governors member
- 2008 KenGen Certificate of Service for Active Participation as a Member of the Technical Committee for the Sondu Miriu HydroPower Project from the Year 2001 to 2008 and Contributing to the Successful Completion of the Project.
- 1993 PATT (Pupil Attitude Towards Technology 1993 Award (The Netherlands) for contribution Internationally to technology Education.
- 1990 Chairman Award for Creativity and Innovation in Environmental Technology (KENGO), Nairobi.

EDITORIAL BOARD

- 1993 International Journal of Technology and Design Education, U. K.
- 1992–1999 Resources Journal for Sustainable development in Africa, (KENGO), Kenya.

BOARD MEMBERSHIPS

- 2008 to date Board member of Nyabondo Boys High School and Abwao Mixed secondary School
- 2004 -To date Chairman, Sustainable Aid in Africa International (SANA)
- 1998 Founder Member – Nyakach Elders and Development Group and Nyakach Professionals
- 1998 Board member – Nyakach Girls Secondary School – Nyando District.
- 1995-99 Representative of KENGO in the Friends of Earth International (FOEI)
- 1995-98 Thurdibuoro Secondary School, Nyando District.
- 1995-1998 Board Member- Nyabondo High School, Nyando District
- 1993 National Advisory Committee AWLAE – Winrock International.
- 1993-96 Board Member – Kamukunji Secondary School, Nairobi.
- 1993 Chairman, Board of Governors, Abwao Secondary School.

1992 Founder Member – OSIENALA (Friends of Lake Victoria), Kisumu

NATIONAL CHAIRMANSHIP

1995-98 National Chairman of the Jua Kali Symposium Sub-Committee of the National Jua Kali Symposium and Exhibition. Also member of the National Steering Committee.

EXTERNAL EXAMINER

Moi University - School of Environmental Studies

Kenyatta University - Home Science Department
- Environment Department

Kenyatta University - Appropriate Technology Department.

REFEREES

Prof Joesphine Ngaira
Director,
School of Environment and Earth Sciences (SEES)
Maseno University
P O Box 333, Maseno, Kenya
+254722812984

Prof Herrick Othieno
Physics Department
Masinde Muliro University of Science and Technology
P O Box 190
Kakamega, Kenya
Mobile: +254721350843

Mrs Jenipher Kerre
Director
Women in Fishing Industry Programme
P O Box 9722-40141
Kisumu, Kenya
Mobile: +254733854017