



UNIVERSITY OF NAIROBI
COLLEGE OF AGRICULTURE AND VETERINARY SCIENCES
WANGARI MAATHAI INSTITUTE FOR PEACE AND ENVIRONMENTAL STUDIES

ANNUAL REPORT- 2019

1. Brief introduction of the Institute

The Wangari Maathai Institute for Peace and Environmental Studies (WMI) was established in 2009 as a centre of excellence in environmental governance and its linkages with peace and democracy. The Institute was established in close collaboration with the 2004 Nobel Peace Prize Laureate, the late Prof. Wangari Maathai. WMI aims to promote good environmental practices and to cultivate a culture of peace by shaping values, ethics and attitudes of its graduates through experiential learning, mentoring and transformational leadership.

2. Programmes offered

In 2019, the Institute offered the following programs;

- i) Master of Science in Environmental Governance
- ii) Doctor of Philosophy in Environmental Governance and Management.

The Institute also offered the following short course;

- i) Environmental Impact Assessment and Environmental Audit

3. Enrolled students in postgraduate programmes

In 2019, the Institute enrolled twelve (12) students for Master of Science in Environmental Governance and sixteen (16) students for Doctor of Philosophy in Environmental Governance and Management.

4. International student component

In the year 2019, the Institute enrolled Mr. Matata Eluzai John, Reg. No. A82/5351/2019 from South Sudan for the Doctoral programme

4. Enrolled students in short course

In 2019, the Institute enrolled 17 students for the Integrated Environmental Impact Assessment and Audit course.

5. Number of graduates per programme

In the year 2019, the Institute graduated the following:

i) A60 M.Sc. in Environmental Governance	7
ii) A82 Ph.D. in Environmental Governance and Management	2
iii) EIA Certificate Course	17

6. Research and training activities undertaken

i) Sustainable Land Use and Natural Resource Management (SLUSE 2019)

The Wangari Maathai Institute for Peace and Environmental Studies in collaboration with the University of Copenhagen and Roskilde University, Denmark successfully implemented the 2019 experiential field learning course dubbed, “**Sustainable Land Use and Natural Resource Management – (SLUSE),**” which is the 7th in a series after the SLUSE courses in 2012, 2014, 2015, 2016, 2017 and 2018. The program was held in Kibugu, Embu County, from March 1-12, 2019. It incorporated students from various disciplines including environmental governance, agriculture, sociology, anthropology, economics, forestry, livestock production and law. The course was attended by thirty five (35) students of whom seventeen (17) were international students from both University of Copenhagen and Roskilde University and eighteen (18) from the University of Nairobi-Wangari Maathai Institute and the Department of Geography and Environmental Studies.



Students from the WMI-UoN, UoC and UoR, Denmark presenting their preliminary findings on macadamia farming

ii) Situational analysis of Environmental Sustainability in Tharaka Nithi County - January 22-24, 2019

The Wangari Maathai Institute for Peace and Environmental Studies in conjunction with a representative from Tharaka Nithi County successfully conducted an environmental sustainability situational analysis in the County. The objective of the collaboration was to seek solutions towards achieving sustainable livelihoods through Integrated Environmental Restoration in the County. The Institute appreciated the County for the collaboration and hoped to continue working together towards achieving the objective.



The WMI and Tharaka Nithi County Teams during the interview at Meru Herbs in Tharaka Nithi County, credit Ms. Kong'ani

7. International linkages and Collaborations

i) Utu Conference on Community Engaged Scholarship and Advocacy, June 20, 2019

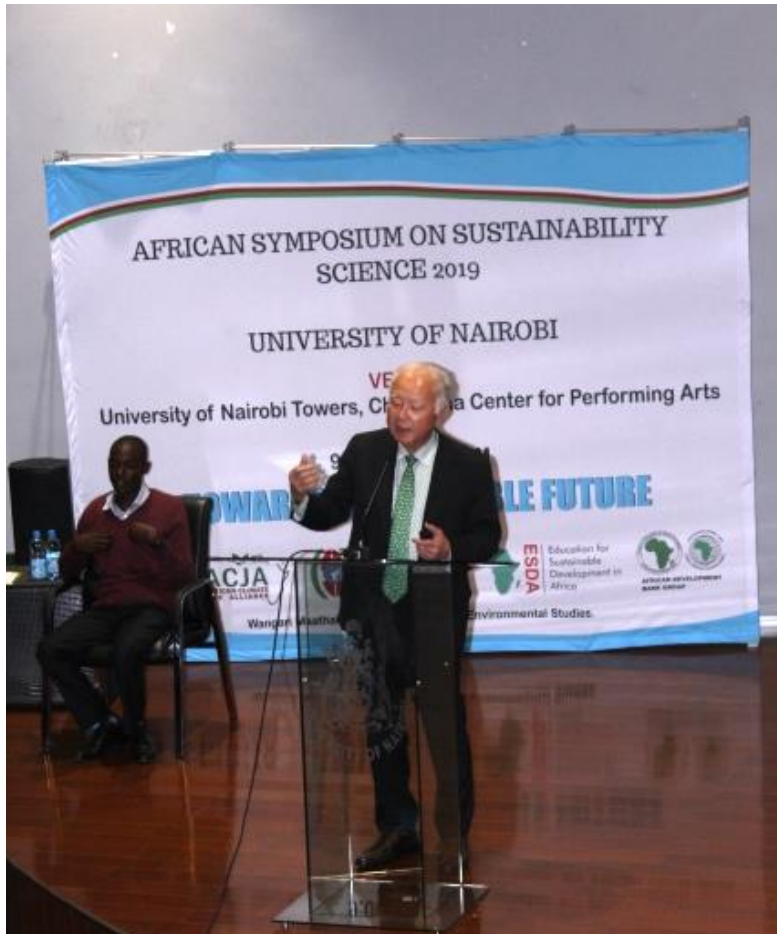
Wangari Maathai Institute (WMI) in partnership with James Madison University organized a one-day Utu conference on community engaged scholarship and advocacy on June 20, 2019 at the WMI Green Campus. The conference presented an interdisciplinary space for academicians and advocacy practitioners to dialogue with one another on issues related to the multi-dimensional ways in which collaboration and reciprocal partnerships can be activated between advocacy.



Group photo of participants during the Utu Conference on Community Engaged Scholarship and Advocacy on June 20, 2019

ii) WMI co-hosts the first African symposium on Sustainability Science – March 4, 2019

The Wangari Maathai Institute for Peace and Environmental Studies, University of Nairobi, was honoured to host the first African symposium on Sustainability Science in March, 2019. This high-profile forum was held at the University of Nairobi's Chandaria Centre for Performing Arts. The main objective of this symposium was to promote sustainability science education in Africa. The symposium brought together a wide range of participants (local, regional and international) including the Institute for Global Environmental Strategies (IGES) Japan, Education for Sustainable Development in Africa (ESDA) and the Ministry of Education, Kenya.



Prof. Kazuhiko Takeuchi, Distinguished Chair WMI, gives his remarks at the first African Symposium on Sustainability Science

iii) The Wangari Maathai Institute hosts the closing ceremony for the SLUSE 2019 course – Tuesday 12th March, 2019

The Wangari Maathai Institute for Peace and Environmental Studies' joint Sustainable Land Use Management (SLUSE) programme with the University of Copenhagen was successfully concluded by a colourful closing ceremony that was held on March 12, 2019 at the WMI green campus. This event saw the award of certificates to the 35 participants after successful completion of the experiential learning course on Sustainable Land Use Management Systems (SLUSE) in Kibugu, Embu County. The participants were drawn from the University of Nairobi - Wangari Maathai Institute, University of Copenhagen and Roskilde University. The students are expected to write examinable reports and also publish their research findings to contribute to the much needed scientific evidence. The event was graced by Prof. Roselyne Nyikal, Ag. Principal, College of Agriculture and Veterinary Sciences and Prof. Christian Pilegaard Hansen of the University of Copenhagen.



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8. Publications

- i) R.M. Kweyu, R.M., **Thenya, T.**, Kiemo, K. and Emborg, J. (2019). The nexus between land cover changes, politics and conflict in Eastern mau forest complex, Kenya. *Applied Geography* Volume 114, January 2020, 102115.
- ii) K.J.Gitau, K.J., **Mutune, J.**, Sundberg, C., Mendum, R. and Njenga, M. (2019). Factors influencing the adoption of biochar-producing gasifier cookstoves by households in rural Kenya. *Energy for Sustainable Development* Volume 52, October 2019, Pages 63-71.
- iii) Gitau, J.K., Sundberg, C., Ruth Mendum, R., Mutune, J. and Njenga, M. (2019). Use of Biochar-Producing Gasifier Cookstove Improves Energy Use Efficiency and Indoor Air Quality in Rural Households. *Energies*, MPDI **12** (22), 4285
- iv) Nyarieko, W., **Nzioka, J.**, Oludhe, C., and Opere, A. (2019). Influence of Environmental Impact Assessment in minimizing climate change impacts on transport infrastructure in Kenya. *Journal of Sustainability, Environment and Peace*, 2(1), 1-8. Retrieved from <http://jsep.uonbi.ac.ke/ojs/index.php/jsep/article/view/237>
- v) Okech, C., Ndolo, J., Nyandega, I., and Ang'u, C. (2019). Impact of rainfall variability on surface water resources in Homa Bay county, Kenya. *Journal of Sustainability, Environment and Peace*, 1(3), 84-90. Retrieved from <http://jsep.uonbi.ac.ke/ojs/index.php/jsep/article/view/225>

- vi) Gitau, J.K, Mutune J., Sundberg, C., Mendum,R. and Njenga, M. (2019). Implications on Livelihoods and the Environment of Uptake of Gasifier Cook Stoves among Kenya’s Rural Households. *Annl Sci* **2019**, *0* (6), **1205**
- vii) Ndono, P., Muthama, N., and Muigua, K. (2019). Effectiveness of the Nyumba Kumi community policing initiative in Kenya. *Journal of Sustainability, Environment and Peace*, 1(2), 63-67. Retrieved from <http://jsep.uonbi.ac.ke/ojs/index.php/jsep/article/view/203>
- viii) Eipa, S., Nganga, J., and Muthama, N. (2019). Utilization of livestock manure based biogas for climate change mitigation in Nakuru county, Kenya. *Journal of Sustainability, Environment and Peace*, 1(2), 39-44. Retrieved from <http://uonjournals.uonbi.ac.ke/ojs/index.php/jsep/article/view/208>
- ix) **Nunow, A., Nzioka J.M., Mwalichi, I.J. and Kinama, J** (2019). Comparative Analysis of the Role of Gender in Climate Change Adaptation within Kajiado and Kiambu Counties, Kenya. **Journal of Climate Change and Sustainability, 2:1 ISSN: 25230913**
- x) Ang’u, C., Muthama, N., Oludhe, C., and Kong’ani, L. (2019). Effects of civil conflicts on global oil prices and their impact on the energy sector. *Journal of Sustainability, Environment and Peace*, 1(1), 12-18. Retrieved from <http://uonjournals.uonbi.ac.ke/ojs/index.php/jsep/article/view/195>
- xi) Kong’ani, L., Ang’u, C., and Muthama, N. (2019). Adoption of improved cookstoves in the peri-urban areas of Nairobi: Case of Magina area, Kiambu county, Kenya. *Journal of Sustainability, Environment and Peace*, 1(1), 19-24. Retrieved from <http://uonjournals.uonbi.ac.ke/ojs/index.php/jsep/article/view/198>
- xii) Muyukani, W., and **Muthama, N.** (2019). Factors influencing household production of sorghum and millet in Kiminini sub-county of Trans-Nzoia county, Kenya. *Journal of Sustainability, Environment and Peace*, 1(1), 25-31. Retrieved from <http://jsep.uonbi.ac.ke/ojs/index.php/jsep/article/view/197>

9. Presentations at conferences/workshops

- i) Nzioka J. Muthama, Irene M. Nzioka, Lilian N.S. Kong’ani and Cohen Ang’u. Women Empowerment and Environmental Sustainability presented during the 2nd Annual Conference on the Status of African Women on 23rd-25th October 2019 at the University of Nairobi Towers;

10. Staff establishment

In 2019, the Institute had the following staff members:

Professor	0
Associate Professor	5
Senior Lecturer	3
Lecturer	7
Tutorial Fellow	4

Graduate Assistant	2
Senior Admin. Assistant	1
Secretary	1
TOTAL	23

11. Staff portfolio- Name, Qualifications and Position in 2019

S/No.	Name	Qualifications	Position
1.	Prof. David N. Mungai	B.A., M.A., Ph.D.	Director (from August 2019)
2.	Prof. Henry M. Mutembei	BVM, M.Sc., Ph.D.	Director (exited in August 2019)
3.	Prof. Nzioka J. Muthama	B.Sc., M.Sc. Ph.D.	Deputy Director
4.	Dr. Thuita Thenya	B.Sc., M.Sc., Ph.D.	Senior Lecturer
5.	Dr. Jane M. Mutune	B.Sc., M.Sc., Ph.D.	Lecturer
6.	Mr. Henry Kahi	Dip., B.Sc., M.Sc.	Principal Technologist
7.	Dr. Bessy Eva Kathambi	B.A., M.A., Ph.D.	Tutorial Fellow
8.	Mr. Abdimajid N. Abdi	B.Sc., M.Sc.	Tutorial Fellow
9.	Ms. Lilian Namuma S. Kong'ani	B.Sc., MSc.	Tutorial Fellow/Ag. Admin. Assistant
10.	Mr. Cohen Ang'u	B.Sc., M.Sc.	Tutorial Fellow
11.	Ms. Linda Obiero	B.A., MBA	Graduate Assistant
12.	Ms. Phyllis Wamaitha	LL.B, M.Sc.	Graduate Assistant
13.	Ms. Everlyn Ishuga	Higher Diploma	Secretary

12. Corporate Social Responsibility, Environmental and outreach activities

- i) Wangari Maathai Institute (WMI) and Kiambu County Government conducted a Tree Planting Exercise at Ndumbuini Trading Center in preparation for the World Environment Day on June 5, 2019

WMI in partnership with Kiambu County Government and Wildlife Students Association conducted a tree planting exercise at Ndumbuini Trading Center on Saturday May 18, 2019 from 10:00 am. The exercise was graced by Mr David Kuria, the Deputy County Commissioner – Kiambu County, Mr. Lameck Nyamai, the County Executive Committee member for Environment and Forestry – Kiambu County, Director WMI, Deputy Director WMI and attracted a wide range of participants including WMI Staffs, University of Nairobi students, youth groups, Ndumbuini residents among others. Approximately 200 tree

seedlings were planted at Ndumbuini Trading Center and Uthiru round-about area. This exercise served as a build-up to a host of activities to be conducted on June 5, 2019 during the World Environmental Day at the Wangari Maathai Institute Campus.



Prof. Henry Mutembei, Director, WMI, participates in the tree planting exercise at Ndumbuini Trading Center. In the front row from right is Mr. David Kuria, Kiambu Deputy County Commissioner, Dr. Jane Mutune, Lecturer WMI, Mr. Lameck Nyamai, Kiambu County Executive Committee member for Environment and Forestry and Prof. Nzioka J. Muthama, Deputy Director, WMI. Photo credit, Mr. Angu

- ii) The Wangari Maathai Institute hosted commemoration of the World Environment Day on June 5, 2019

The Wangari Maathai Institute for Peace and Environmental Studies, University of Nairobi was honored to host the World Environment Day in partnership with Kiambu County Government, Kenya Association of Manufacturers, UN Environment, Eden Stewards among other partners. The event dubbed “Keep Ndumbuini Clean, Keep Me Healthy” was held on June 5, 2019 at the Wangari Maathai Institute Green Campus after being flagged off at Uthiru Polytechnic. The aim of the event was to promote a cleaner, healthier and sustainable Ndumbuini by mobilizing residents to collect solid waste for safe disposal, offering free diagnostic and curative healthcare services, promoting legal and environmental awareness, offering free veterinary services, tree growing and team building through soccer matches. The activities brought together a wide range of participants including students (University, secondary and primary schools), the county government, entrepreneurs, community organizations and youth groups. The event was graced by Mr. Ferdinard Waititu, the Governor, Kiambu County, Mr. Lameck Nyamai, Executive Committee member for Environment and Forestry – Kiambu County, Mr. Erick Ndung’u, member of county assembly – Uthiru ward, the CEO Kenya Association of Manufacturers represented by Mr.

Job Wanjohi, Prof. Henry Mutembei, Director, Wangari Maathai Institute and Prof. Nzioka N. Muthama, Wangari Maathai Institute among others.



Mr. Ferdinand Waititu, Governor, Kiambu County plants a tree during the commemoration of World Environment Day at the Wangari Maathai Institute assisted by Mr. Erick Ndung'u, Member of County Assembly, Uthiru Ward. To his left and right are Prof. Henry Mutembei, Director, WMI and Prof. John Muthama, Deputy Director, WMI, respectively.

iii) World Environment Day Sports Activities, 2019

Wangari Maathai Institute marked the World Environment Day sports activity on 5th June 2019 by organizing a sports activity to enhance team spirit amongst the youth in Ndumbu-ini. The winner's trophy was donated courtesy of Kenya Association of Manufacturers. A total of 4 teams participated in the activity; kayole Mtaa Safi Initiative, One Stone Youth Group, University of Nairobi CAVS and Cooperation Bodaboda Sacco. The teams were divided into 2 pools. Pool A; One Stone Youth Group versus Kayole Mtaa Safi Initiative, the winner being One Stone Youth Group with 1-0. Pool B; University of Nairobi CAVS versus Cooperation Bodaboda, the winner being University of Nairobi CAVS with 3-2. The final match will be organized at a later date between One Stone Youth Group and the University of Nairobi in order to crown the World Environment Day Football Champions.



University of Nairobi (blue and red) versus Cooperative Bodaboda Sacco (orange) in action

- iv) Wangari Maathai Institute partners with Wildlife Students Association, County Government of Kiambu and Edens Stewards in a Clean-Up Exercise at Ndumbuini Trading Center -March 28, 2019

The One-day clean-up activity was conducted on Thursday 28th March, 2019 between 09:00 am and 12:00 noon at Ndumbuini Trading Center. The objective of this activity was to create a clean environment through proper waste disposal practices. Addressing participants earlier at the Green Campus, the College Acting Principal, Prof. Rose Nyikal, urged the organizers of this event to consider having a long-term sustainable solution on waste management for the center.



Group photo after the cleaning exercise

13. Major achievements, challenges and strategic projections

Major Achievements

- i) Wangari Maathai Institute for Peace and Environmental Studies campus officially handed over to University of Nairobi

The WMI campus was officially handed over to the University of Nairobi by the contractor in a special handing over ceremony conducted on May 6, 2019 at 02: 00 pm at the same venue. The contractor handed over the facility to the university in a colorful event marked by a myriad of activities (tour of the building, tree planting, speeches and photo sessions among others).



Prof. Rose Nyikal, Ag. Principal College of Agriculture and Veterinary Sciences, presents the keys of the WMI Campus to Prof. Henry Mutembei (left), Director, WMI during the handing over ceremony at the WMI Campus. Witnessing the exercise is Prof. Stephen G. Kiama, Deputy Vice-Chancellor, Human Resource and Administration (background), Mr. Peter Wekesa, College Registrar, Contractors and representatives from the Green Belt Movement. Photo credit, Ms. Wamaita

ii) Wangari Maathai Institute launches a book on “Forest Resources Utilization, Livelihoods and Conflicts- Synthesis of research under the STAKE Project” -March 20, 2019

The book titled; Forest Resources Utilization, Livelihoods and Conflicts- Synthesis of research under the ‘Stabilizing Kenya through Solving Forest Related Conflicts (STAKE) Project’ was launched on Wednesday, 20th March, 2019 at the Vet Lab Golf Club, Kabete. STAKE Project was a partnership between the Wangari Maathai Institute for Peace and Environmental Studies (WMI), the Green Belt Movement (GBM), Kenya Forest Research Institute (KEFRI) and the University of Copenhagen, Denmark and funded by DANIDA. During its five years period (2012-2016), the project granted scholarships to PhD students and contributed towards a better understanding of ways to stabilize Kenya by solving forest related conflicts.



From the left, Ms. W. Muthee, Mrs. M. Kamau, Chairlady, GBM Board, Mr. E. Muthee, Mrs. M. Muthee, Prof. J. Ogeng’o, DVC (AA), Prof. S.G. Kiama, Ag. DVC, HRA, Prof. R.G. Wahome, Dr. T. Thenya, Prof. Maingi, Dr. E. Mutitu and Prof. H. M.

Mutembei, Director, WMI during the launch of the book

- iii) The Wangari Maathai Institute and faculty receive special recognition for exemplary performance in the year 2017/2018 - January 25, 2019

The Wangari Maathai Institute for Peace and Environmental Studies and faculty were honoured to have been awarded certificates of special recognition for the exemplary performance in the year 2017/2018. Dr. Jane M. Mutune and Ms. Lilian N.S. Kong'ani and the WMI fraternity among other selected staff and units were presented with the certificates of special recognition. The recognition was done during a ceremony convened by the College of Agriculture and Veterinary and Sciences on January 25, 2019 at the 8.4.4 Lecture Theatre to celebrate the College's performance in the 2017/2018 Performance Contract. This inaugural celebration event was presided over by Prof. S.G. Kiama, Principal of the College who sensitized the staff and students about performance contracting, appreciated and encouraged all to continue working hard for the better ranking of the College. The celebration was a result of the College's award of the best performing, 3rd place under the category of College/Campus based on the 2017/2018 performance contract that was presented during the University of Nairobi's Inaugural Annual Staff award ceremony held on December 14, 2018. In attendance were the Dean and Associate Deans, Faculty of Agriculture and Faculty of Veterinary, Director & Deputy Director, Wangari Maathai Institute and faculty and students from these three units of the College.



From the left, Prof. S.G. Kiama, Principal, CAVS presenting WMI's certificate of special recognition to Prof. Henry M. Mutembei, Director, WMI and Prof. Nzioka J. Muthama, Deputy Director, during the College PC celebration ceremony

WMI appreciates the special recognition and the continued support it continues to receive from CAVS fraternity. WMI also thanks all staff, students and stakeholders for their valuable contribution towards this achievement and looks forth to the continued improvement to facilitate the elevation of its standing and that of the College locally, regionally and globally.

Challenge(s)

i) In 2012, the Institute received funding from the African Development Bank and the Government of Kenya to support the design process and the construction of the first phase of the WMI Campus. This was made possible through a project entitled, "Support for the Enhancement of Quality and Relevance in Higher Education Science and Technology in Selected Universities in Kenya Project." The construction of the 1st phase of the Campus is now complete except for the furniture which, if provided, will facilitate the full operationalization of the Institute.

ii) Strategic Projections

With the completion of the first phase of the WMI Campus, we plan to progressively implement the activities in the Strategic Plan including full development of the experiential learning platforms. The Institute has adequate facilities to host conferences and symposia both local and international. With adequate space, facilities and revitalized training and research agenda, we also hope to attract more international students and faculty. Together with the stakeholders, we will operationalize the Peace Labs so that the Institute becomes a focal point for mediation and training in conflict resolution.

14. Any other activities

(i). Seminars/Workshops

In 2019, the Institute organized/co-hosted the following seminars/workshops:

- i) The Wangari Maathai Institute (WMI) hosted a seminar on the “Future of Forests; REDD+ Readiness” on November 27, 2019. The seminar was delivered by Prof. Nzioka J. Muthama, Deputy director, WMI, Dr. Jane Mutune and Dr. Bessy Kathambi and attracted a wide range of participants including students, staff, policy experts and practitioners among others. The seminar introduced participants to the REDD+ process in Kenya and where the country is regarding the implementation of REDD+.
- ii) NACOSTI Chief Science Analyst Margaret Maimba shared insights on the role of NACOSTI in formulation and implementation of public policies with staff, students, policy experts and practitioners at the Wangari Maathai Institute on Wednesday November 13, 2019.
- iii) On September 27, 2019 the Pan-African Climate Justice Alliance (PACJA) held the climate change march which marked the climax of the Global Climate Week. The walk was organized in partnership with OXFAM, 350.ORG, the Kenya Platform for Climate Governance, Christian Aid among others. Mr. Charles Mwangi, the Thematic Leader for Resilient Economies, Societies and People led the walk.
- iv) The Institute co-hosted the Food Security Center Regional Workshop. The event was organized by the University of Nairobi team in collaboration with the Food Security Centre and a consortium of local and regional Universities. The workshop was held from September 23-25, 2019 under theme, “Sustainable Safe Food Systems in Africa: Moving towards a Sustainable Food Future.” The workshop brought together participants from all over the region with the aim of discussing issues surrounding the safety of food for consumption.
- v) WMI co-hosted the 2nd Kenya Organic Food Festival and Exhibition (KOFFE) from September 20-21, 2019. This important event was officiated by Prof. Rose Nyikal, Ag. Principal, College of Agriculture and Veterinary Sciences who in her remarks, acknowledged the efforts of disseminating crucial information about healthy and organic food. Professor David Mungai, Director WMI welcomed the stakeholders and gave a brief overview of the Institute. He also pointed out that WMI is currently working towards establishment of an organic and herb garden that is meant to educate and benefit the community.
- vi) On 13th August 2019 WMI organised a youth capacity building workshop to mark the international day of the Youth. The workshop involved expert presentation on Apiculture, Briquette-making, mindset change.
- vii) A seminar on turning waste plastic into roofing tiles and its economic impact on low-cost housing was delivered by Dr. Aghan of Continental Renewable Energy Co. Ltd (COREC) on February, 2019.