



THE CENTRE FOR SUSTAINABLE DRYLAND ECOSYSTEMS AND SOCIETIES (CSDDES)

Newsletter
Issue No. 003





Our Vision:

Excellence in the management of dryland ecosystems and Societies

Our Mission:

To contribute to sustainable dryland ecosystems and improved livelihoods through innovative trans-disciplinary education, research, partnerships, policy dialogue and community outreach initiatives.

Core values

1. Collaborations and partnerships
2. Equity and inclusiveness
3. Professionalism and integrity
4. Commitment to community service
5. Innovativeness
6. Environmental integrity
7. Respect for cultural diversity
8. Good governance
9. Affirmative action

Our Key objectives

1. Improved coordination of interdisciplinary Higher Education, research and outreach for drylands in Kenya
2. Greater capacity of students and faculty to address the problems of dryland ecosystems and societies
3. More informed policies, more efficient use of resources, and more appropriate innovations for drylands of Kenya
4. Greater participation in higher education by pastoralists/dryland communities, especially women, resulting in the development of more appropriate innovations for dryland systems
5. Increased impact of higher education, research and outreach on the sustainability of Kenyan drylands.

Table of Contents

●	Director Remarks	4/5
●	UoN and CSU Strengthen Relations	6
●	CSU President Gives Lecture At UoN, CAVS	7
●	Interview with CSDDES Internship Beneficiary Frankline Otiende	8
●	1st Student- Led Conference Held at CAVS	9
●	Pictorial	10/11
●	CSDDES Hosts a Seminar on Delivering Technologies to Counties and Communities	12
●	Yatta Constituency Leading the Way in Food Security	13/14
●	24 Benefit From Gis Training	15
●	CSDDES Reaches Out to Yatta Community	16
●	Eight UoN Students Benefit from Three Weeks Field Study Experience in 2013	17
●	Briefs	18
●	CSDDES Strengthen Outreach Program In Samburu County	19

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DIRECTOR REMARKS



Prof. J.T. Njoka, CSDS Director.

Two years ago, the US Agency for International Development (USAID) and Higher Education for Development (HED) funded 11 innovative new partnerships between 22 Universities in Africa and the United States through the Africa-United States Higher Education Initiative to address issues such as food security, agriculture, solar energy, health care, education and water in Africa. The partnerships were expected to maximize the resources of United States institutions, while placing African Universities in the lead to capitalize on their on-the-ground knowledge of and proximity to issues and challenges, and to build their own capacity to better address these challenges.

Under this initiative, the University of Nairobi (UoN) and Colorado State University (CSU) entered into a unique partnership that established the Centre for Sustainable Dryland Ecosystems and Societies (CSDS) at UoN with the aim of transforming higher education and creating relevant action research that builds human and institutional capacity for sustaining and improving the ecosystems and human livelihoods in Kenya.

In the last two years of existence, CSDS team comprising of the Advisory board, management

committee, Secretariat and other players have worked tirelessly to ensure that the objectives and the ultimate goal of the Centre has been realized. In spite of various challenges, we celebrate the modest strides we have made towards the realization of our goal. Some of the milestones we have achieved so far include:

Through collaborative partnerships with overseas Universities, CSDS has organized and supported six field courses (two per year) that have benefitted 38 undergraduate students from the College of Agriculture and Veterinary Sciences (CAVS). The field courses have played significant roles in giving the students hands on training in dryland ecosystem resource assessment and providing avenue for interaction with pastoral communities. CSDS facilitated the signing of a strategic partnership between CSU and UoN on 29th November 2012 at UoN. With the signing of the strategic partnership between the two institutions, opportunities are already opening up for wider collaborations among departments across the two Universities.

We managed to leverage resources to support students from underserved areas in drylands through an affirmative action with other partners:

CSDS in collaboration with the Meeker Family Fund is currently supporting 2 masters students (one male student from Turkana County, and one female student from Wajir County) and four undergraduate students (one female from Samburu County, One male from Narok County, one male from Kajiado County and one male from Laikipia County).

The project has refurbished Kibwezi field station where students from UoN and faculty members spend time in the University dryland farm and from that base visit the drylands in Southern Kenya, including Tsavo National Park.

CSDS Sponsored several short courses; 2ODL and E- learning, 2 Short courses on GIS, 2 Field courses, 2 Communication course for students and staff Research proposal writing and scientific communication, Center staff training of Administration and orientation on University procedures

The partnership funded 15 interns from various dryland communities, some who were attached to the graduate students for mentoring. In September 2012, the CSDS, CSU and ODL experts from UoN College of Education and E- learning Center conducted a fact finding field assessment for the development of Dryland curricula. The tour covered the Kenya southern drylands (Kibwezi and Taita Taveta – Tsavo)



Beneficiaries of the internship program pose for a photo with the CSDS director after a mentorship meeting at UoN.



High profile delegation from CSU. The delegation signed an MOU with UoN and paid a courtesy call to the Principal, CAVS.

and Kenya northern drylands (Isiolo, Samburu).

20 faculty members and 50 graduate students have access to the use of USAID Resource Management Portal courtesy of CSDS.

CSDS has so far held 6 monthly seminar series that have benefitted more than 600 students and faculty members at the College of Agriculture and Veterinary Sciences (CAVS)

The Centre established the GIS lab at CAVS where 5 UoN faculty members and 35 graduate students have benefitted from GIS training.

CSDS awarded 5 Competitive Faculty Grants to CSU and UoN faculty



Mr. Patrick Mwanyumba, UoN PhD student and a beneficiary of research for development award presents his project to the visiting CSU delegation and UoN officials

The road to ensuring sustainable dryland development is long and cannot be left to any one single entity or organization. It calls for commitment to genuine partnerships and collaborations by all stakeholders for sustainable and productive dryland ecosystems and societies.

As we look to the future with a lot of optimism, it is my fervent hope that that in partnership with other stakeholders, the Centre will continue to transform Higher education and create relevant action research that builds human and institutional capacity for sustaining and improving the ecosystems and human livelihoods in the drylands of Kenya and beyond.



UoN students and beneficiaries of the field courses in one of the field training at Kibwezi

members with an aim of supporting faculty from both institutions to develop transformative ideas for research and development in African drylands.

The project awarded 13 UoN graduate students with Research for development fellowship awards to help in enhancing their engagement with communities, policy makers and other stakeholders during the research phase of their post graduate degrees.

The partnership has plans to strengthen the curricula development and revision because of lasting impacts on leadership learning program in the Dryland development and human capacity building.



Prof. Kari E. Veblen from Utah State University giving her presentation in one of the public lectures organized by CSDS

UoN AND CSU STRENGTHEN RELATIONS

The University of Nairobi (UoN) through the Centre for Sustainable Dryland Ecosystems and Societies (CSEDES) and Colorado State University (CSU) signed an International Memorandum of Understanding (IMOU) aimed at strengthening the already existing 50 year-working relationship between the two institutions.

Speaking during the signing ceremony, Prof. George Magoha, Vice Chancellor, UoN, said the move will facilitate the University's efforts in dealing with issues of food insecurity, population, health and climate change. The don said that Kenya is relying on institutions of higher learning to provide the expertise needed for sustainable solutions. To this end, the University through its various academic constituents has been working towards addressing pressing issues in agriculture thereby ensuring food security and combating climate change.

On his part, Dr. Tony Frank, President, CSU, said that it was important that universities develop a more sustainable future. In dealing with

will hold the current generation accountable.

The areas of agreement as stipulated in the signed MoU will include a strategic plan for engagement between the two universities in dry land education, research and outreach, fellowships for PhD students in outreach to dry land communities, internships for undergraduate students, research grants, higher education needs assessment for dry land development and conservation which will lead

scholarships.

In 2011, UoN and CSU obtained a joint grant funded through Higher Education for Development (HED) by USAID, under their Africa-US Higher Education Initiative.

The partnership led to the establishment of the Centre for Sustainable Dryland Ecosystems and Societies (CSEDES) at UoN to develop an integrated approach to sustaining Kenyan dryland societies and ecosystems by linking research, higher education and communities.

The Mission of the Centre is to contribute to sustainable dryland ecosystems and improved livelihoods through innovative trans-disciplinary



Dr. A. Frank, CSU President (seated left) and Prof. G. Magoha Vice- Chancellor, UoN (seated right) sign an IMOU between the two institutions.



Visiting CSU delegation in a meeting with CAVS faculty members at the College of Agriculture and Veterinary Sciences.

the present problems, he pointed out that the overall challenge is to accept the responsibility to deal with these problems as the future generation

to development of relevant pre-university diploma courses, distance education, changes in curriculum to focus on dry land issues and

education, research, partnerships, policy dialogue and community outreach initiatives. UoN is the leading university for the study of drylands for the region and serves 29 universities in Eastern and Southern Africa through its Dryland Resource Management PhD Program.

The Centre enhances UoN's capacity to produce high-performing graduates who engage in demand-driven research that contributes to sustainable and productive dryland ecosystems and societies and will build the higher education capabilities of dryland communities in Kenya and beyond. The Centre also provides a major point of engagement for students and faculty from CSU in dryland education, research and outreach.

CSU PRESIDENT GIVES LECTURE AT UoN, CAVS



Dr. A. Frank, CSU President giving a public lecture at CAVS, UoN

More than 500 University of Nairobi (UoN) students and faculty members thronged the 8:4:4 Auditorium at the College of Agriculture and Veterinary Sciences (CAVS) to attend a public lecture given by Dr. Anthony Frank, the 14th President of Colorado State University (CSU). The lecture which took place on 30th November 2012 was organized by the Centre for Sustainable Dryland Ecosystems and Societies (CSDS) in collaboration with CAVS.

The guest speaker who was accompanied by a high profile delegation of ten from CSU made a presentation on: University- Community Partnerships: opportunities and challenges.

While addressing the mammoth audience, the CSU Presi-

dent was optimistic that if the two Universities can partner and take advantage of the huge potential provided by the two institutions, then they will be equal to the task and will be a match for the times. "If two people regardless of gender, ethnicity, and background are equal to the same task, then the two people are equal," he said.

Dr. Frank said that though the older generations had made tremendous advances in biomedicine, science and ecosystems, a lot is yet to be done in the areas of food, water and energy security. There are many people still marginalized today. If the two institutions will work together then it will be possible to address these challenges. "I believe that if we do that, our institutions will be a match not challenged by the times. I look forward to partner with UoN to be able to overcome these challenges," he concluded.



Prof. P. Mbithi, DVC-A & F, UoN (centre) chats with Dr. J. Cooney, CSU Vice Provost for International Affairs and Robin Reid, CSU and CSDS CO-PI.

In his remarks, Prof. Peter Mbithi, the Deputy Vice Chancellor in charge of Administration and Finance at UoN acknowledged the Powerful delegation from CSU for sparing time to visit the UoN.

Prof. Mbithi while introducing the President expressed his appreciation for the huge turn up of students and faculty to attend the Lecture. "I am very pleased to stand before you to introduce the president of CSU and thereafter to an interaction regarding the Lecture," the Don said.

INTERVIEW WITH CSDS INTERSHIP BENEFICIARY FRANKLINE OTIENDE

How did you get to know about the Centre for Sustainable Dryland Ecosystems and Societies (CSDS) project?

I learnt about CSDS from the Department of Land Resources Management & Agricultural Technology where I was undertaking my Master's degree.

In what ways did you benefit from the project

CSDS partially sponsored my M.Sc. project and gave me an opportunity for internship in the communication department.

Briefly explain your internship experience at CSDS

I quite enjoyed my internship at the Centre for Sustainable Dryland Ecosystems and Societies (CSDS) office. Besides giving me work experience, it enriched my professional life. Since I was a boy I had always dreamt of authoring a book or being one of the contributors or editors of some work. At the Centre this was a dream I attained. The first newsletter of the Centre bore my name as an editor. As an intern at the Centre I was able to edit the magazine. I learnt how to title articles put captions of pictures and design the magazine.

What are you currently doing (academics and professionally)?

I am currently pursuing my PhD at JaramogiOgingaOdinga University in Siaya while working as a tutorial fellow in the same institution.

Do you feel CSDS project has played a role in your current profession and academics?

Yes. I always have desired to be a lecturer at a university. In reality I attained this dream upon completion of my master's degree. CSDS through research for development award funded my Masters project to investigate the effects of military training on the distribution and abundance of wildlife on Mpala Ranch. After I completed my Master's degree I enrolled for PhD which am currently pursuing. All this has been made possible courtesy of CSDS.

What are some of the moments you cherish while serving as an Intern at CSDS?

A lot of learning and exposure working with students. At

the Centre I had the privilege of coordinating field courses which brought me so close to students. I must say I loved it. The memories are cherished and treasured.

What did you find most challenging while working as an intern at CSDS?

Meeting very short deadlines was very challenging because some of the deadlines were so close and yet had to deliver on time.

What would you wish to tell those who wish to pursue courses related to dryland?

I wish to tell them that drylands occupy 80% Kenya. Let them not hesitate to enroll because here is need to build capacity for proper management of the drylands in the country.

Are there any recommendations you would wish to give

Franklin Otiende

to CSDS for improvement and efficiency?

I wish to request CSDS to consider awarding letters of service to their interns and also to reach out to secondary students on the importance of dry lands



Besides giving me work experience, it enriched my professional life. Since I was a boy I had always dreamt of authoring a book or being one of the contributors or editors of some work. At the Centre this was a dream I attained"

1ST STUDENT- LED CONFERENCE HELD AT CAVS



Participants of the 1st ever student- led conference take a picture during a break time session.

The University of Nairobi (UoN) through the Center for Sustainable Dryland Ecosystems & Societies (CSDS) hosted the first ever student-led conference whose motto was preparing the next generation for dryland sustainability. The conference was held from 29th-30th May, 2013 at the College of Agriculture and Veterinary Sciences (CAVS), Upper Kabete.

The two day conference on transformative education, research and engagement for dryland resilience and sustainability was organized by University of Nairobi (UoN) Students. The conference brought together more than 100 participants from dryland communities, student interns, faculty members from UoN and CSU, undergraduate and post graduate students, students from other universities in Kenya, African diaspora and local and international non-governmental organizations.

Prof. Isaac M. Mbeche, Deputy Vice-Chancellor in charge of student affairs opened the conference on behalf of the Vice –Chancellor. The DVC was optimistic that the discussion of research findings and research ideas shared in the conference would contribute to renewed thinking on how to release the potential of drylands.

Giving a key note address, Dr. David Nkediye, Governor Kajiado spoke on empowering the underrepresented groups for sustainability on dryland ecosystem & societies. He emphasized on the critical role of higher education if the counties have to take off. "There is need to bring expertise with good work ethics, the right attitude and effort into place. Young people and students need to come on board so as to achieve the right result". Dr. Nkediye said.

Dr. Jonathan Davis from Global Drylands Initiative made a presentation on sustainable land management and valuation of dryland ecosystem services. In his

presentation, Dr. Davis put it clear that the drylands of Africa cannot be ignored by international community because of the roles they play in combating climate change. He noted that the UN system wide response to drylands is well recognized. He highlighted that drylands have been misunderstood by attaching negative images of the environment and people despite having a lot of positive images like beautiful landscape, trees, biodiversity, culture, inspiration, genes and economic benefits. The existence of many Investment opportunities that exist in drylands was also recognized and there was need to connect drylands to the rest of the world.

CSDS supported interns who had gone for internship in dryland areas such as Narok, Garissa, Isiolo, Samburu and Kajiadogot an opportunity to give their experiences in the field. The students underscored the need to evaluate relationship between human and wildlife and to strategize opportunities like wildlife farming and eco-tourism potential that will lead to sustainable wildlife utilization. The need to train livestock herders on herd management also came up. It was evident that people living in the dryland still faced mobility hardships, insecurity and illiteracy.

While giving her closing remarks, Prof. Agnes



Ms. Fatuma Mohammed, one of CSDS scholarship beneficiaries addresses participants during the 1st student-led conference at UoN, CAVS.

Mwang'ombe, Principal, CAVS acknowledged the efforts of the students and all the participants in organizing and making the 1st student conference a success. She called on all the stakeholders to make the conference an annual event. "I challenge CSDS and other stakeholders within the University to facilitate the student conference to become an annual event just like it is at Colorado State University. It is my hope that the conference presentations will be published in proceedings that can be one of the many to follow so that the outcomes of the conference will be widely disseminated." She concluded.

Through the CSDDES LENS



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1. Prof. R. Raid, CSDDES CO-PI from CSU presents her book to Prof. G. Magoha, Vice- Chancellor, UoN after a strategic partnership meeting between the two Universities
2. Dr. David Nkedianye, Kajiado Governor and former CSDDES outreach coordinator making his presentation during the 1st student- led conference at UoN, CAVS
3. Dr. John Kabayo, IGAD consultant on the left and Prof. J. T. Njoka in a partnership meeting with CSDDES at UoN, CAVS
4. Mr. OmenoSuji, REGLAP Coordinator (right) and Dr. Wekesa Mike, Director, EURO AFRICA CONSULT LTD during a partnership meeting with CSDDES at UoN, CAVS
5. CSDDES team led by Dr. M. Nyangito getting views from Samburu elders during an outreach visit to Samburu County

Through the CSDDES LENS



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6. Prof. Agnes Mwangombe, Principal, CAVS awarding a GIS certificate to Dr. R. Onwonga, Lecturer, LARMAT for participating in the one week GIS training at CAVS. Looking on is Prof. R.K. Ngugi, Ag. Dean faculty of Agriculture (right) and Prof. R. Boon from CSU and GIS expert
7. Ms. Sylvia Sumare, CSDDES secretariat explaining a point to community members during an outreach visit to Kajiado County
8. Prof. J.T. Njoka, CSDDES Director gives CSDDES newsletter and brochure to Mr. P. Ntiati, Deputy Governor, Kajiado County during the Launch of ASDSP in Kajiado County. Looking on is Ms. N. Halima, ASDSP Coordinator, Kajiado County
9. University of Nairobi and University of Michigan students discuss with community members from Maasai Mara during a field course trip to Maasai Mara
10. Prof. J.T. Njoka, CSDDES Director (right) introduces CSU visitors to Prof. L. Irungu, DVC, RP&E before the start of a seminar on delivering Technologies to counties and communities. Looking on 3rd from right is Prof. R.K. Ngugi.

CSDS HOSTS A SEMINAR ON DELIVERING TECHNOLOGIES TO COUNTIES AND COMMUNITIES



Bishop T. Masika, Director, Christian Impact Mission gives a presentation about the "Operation Mwolyo Out" project in Yatta during the seminar

The Centre for Sustainable Dryland Ecosystems and Societies (CSDS) held a successful and interactive half-day seminar on 1st August 2013 entitled; Delivering Technologies to Communities and Counties through University/Research /Extension Partnership Model.

The Seminar which took place at the Pride Inn hotel, Westland, Nairobi was aimed at bringing together key partners of University of Nairobi's (UoN) Dryland Centre to focus on how outcomes of research, extension services and technological innovations can reach a broad audience within the drylands. The specific objectives of the Seminar were:

1. To share the experiences from University/ Research Institutes/National Government Extension Delivery Models in Kenya
2. To learn from the US Land Grant University led Extension Model- example of Colorado State University
3. To explore opportunities for University/ Research/ Extension partnerships for Engagement with Communities and County Governments.

Among the partners present at the seminar were: Colorado State University (CSU) Professors, UoN professors and senior officials, faculty member from Dedankimathi University of Science and Technology , representatives from Kenya Agricultural Research Institute (KARI), Agricultural Sector Development Support Programme (ASDP)- Kajiado County, USAID Kenya, Ministry of Agriculture, Livestock

and Fisheries, Reto-o-reto, Community representatives from Machakos and Marsabit Counties.

Making her opening remarks, Prof. Lucy Irungu, Deputy Vice Chancellor (DVC), Research, Production and Extension (RP&E) explained the mandate of the research, production and extension division at UoN which is promoting the discovery, application and dissemination of knowledge through quality research and innovation and spearheading the utilization and uptake of knowledge by the end users.

Prof. Irungu noted that Universities have to reconsider how they engage with the communities so that the research being undertaken can have tangible benefits to the societies. She underscored the commitment of University of Nairobi in supporting research and extension services that will impact the communities.

Dr. Julius Kilungo from USAID Kenya appreciated the relationship that has existed between UoN and CSU. He said that USAID recommended the National Agricultural Sector Extension Policy (NASEP) launched in June 2012 by the former President of Kenya, MwaiKibaki to the relevant institutions so as to revitalize extension and make it more relevant to the communities.

Prof. Aduda represented Prof. P. Mbithi, DVC Administration and Finance and gave the closing remarks. The DVC underscored that the strategic objective of UoN is to create value-adding partnerships and linkages locally, regionally and globally. He emphasized on the importance of extension services if vision 2030 will have to be realized.



Stakeholders pose for a photograph after the seminar. Prof. L. Irungu, DVC RP&E (Front row, third from right)

YATTA CONSTITUENCY LEADING THE WAY IN FOOD SECURITY



Bishop T. Masika (in white cap) explains how to grow maize in a nursery to UoN delegation

Yatta Constituency is one of the six constituencies that constitute the expansive Machakos County. It is located in the Arid and semi- arid (ASAL) regions of Kenya and receives erratic rains of less than 500mm annually. The temperatures range from 10oC to 28oC. The altitude of Yatta ranges between 700-800 meters above sea level befitting the bill for a hot tropical climate where evaporation exceeds rainfall. In spite of the tough climatic conditions, the constituency plays host to approximately 148,000 people.

Just like other drylands, the region has suffered from acute food shortage forcing the community to rely on food relief locally referred to as “mwolyo” as a survival strategy. The overde-

pendence on food relief however has never provided the much needed solution for the chronic food shortage because the aids always run out or are withheld due to various reasons.

Tired of the dependency syndrome, a number of households from Makuta-

no village-Kenyatta Division decided to prove that residing in dry areas did not deter them from engaging in successful agricultural production and eliminate Mwolyo.

After the 2009 drought that hit the country, the households came together under a church-led project with the aim of kicking out hunger



One of the farmers take the UoN delegation around his farm in Yatta

and eliminating relief for good. They initiated a project dubbed "Operation Mwolyo Out" (OMO), "Mwolyo" meaning relief in the local Kamba dialect. Dr. Bishop Titus Masika of Christian Impact Mission was chosen to head the project.

"People have lived on relief and the common word here is Mwolyo. This has been the vehicle members of parliament and councilors have ridden to get to power. So we wanted to get the people food secure and address issues of climate change," Says Bishop Masika.

Bishop Masika explains that he was moved by a story covered by Nation media group of a lady named Kanyiva from the neighborhood who had died of hunger three days after giving birth to twin daughters. The death of the young lady prompted him to bring together various leaders to discuss sustainable solutions to food insecurity and come up with an exit strategy for relief interventions in the region.

of water. We therefore put in place a plan that will ensure people have sufficient water." He said.

The community decided to come up with water harvesting methods. Each household was required to dig a water pan to store rain water which they would not only use for domestic purposes but also for irrigation. Within one year the community had dug more than 1,500 water pans.

Zai pits (planting pit with a diameter of 20-40 cm and a depth of 10-20 cm) were also dug in the farms to capture run-off water and to protect seeds and organic matter against being washed away.

Farmers were encouraged to adopt good agricultural techniques and plant high value crops with the aims of creating wealth, good health and jobs. They were required to divide one acre piece of land into five where by in a half an acre, they were to plant maize. The other half would then be sub divided further into four and

would be used to plant high value crops such as tomatoes, cucumber, onions and chillies.

With this arrangement, villagers have now been able to feed their families comfortably; they are also able to sell their produce both locally and internationally hence becoming economically empowered.

A community which a few years suffered severely from the pangs of hunger is now leading the way in achieving food security and economic empowerment.

Jane Mwanja, the chairperson of the group is all smiles as she explains to the University of Nairobi delegation. "We used to wake up at 2am in the morning to search for water and come back home at 4pm. Our children never went to school, the kind of education we had was water fetching. Our husbands run to Nairobi to look for greener pastures."

According to her, after the OMO proj-



Chicken farming in Yatta

"After discussions with the leaders, we came up with a program called "Operation Mwolyo Out" that embraced integrated community transformation approach that addresses various human dimensions including; religious, social change of mindset, economic, technological, environmental and political dimensions." He said.

According to the Bishop, one of the biggest challenges in the region was water scarcity. "Women used to go for more than 18 to 20km daily in search



Tomatos ready for sale in one of the farms

ect was initiated, the women started another program called "Operation Men Back" with an aim of getting all the men out of Nairobi City back to the village to go and farm.

"Our men came back, got into the farm and now everything is green. In fact we have become donors ourselves." She concludes.

24 BENEFIT FROM GIS TRAINING



Dr. Laban McOpiyo, the GIS course instructor conducting the GIS training at CAVS

Twenty four University of Nairobi (UoN) students and faculty members benefited from a Geo-Information Systems (GIS) training sponsored by the Centre for Sustainable Dryland Ecosystems and Societies (CSDES). The one week training workshop offered from 18th to 25th March 2013 was held at the College of Agriculture and Veterinary Sciences (CAVS), Department of Land Resources Management and Agricultural Technology (LARMAT).

This was the second GIS training workshop sponsored by CSDES at the same venue after the first one was held from 19th to 20th June 2012 where 12 PhD students benefitted. Among the areas that were covered in the training were: Spatial data and design, Single- and multiple-layer analysis, Queries and reasoning, Transformation, Interpolation and density functions, Raster analysis basics, Indices and suitability modeling.

Prof. Randy Boone from Colorado State University (CSU) and Dr. Laban McOpiyo from UoN facilitated the training.

After the one week training, participants praised the program noting that it had made tremendous impact on how they would carry out their research especially on how to organize, store, access, retrieve, manipulate, synthesize and apply data.



A section of PhD students undertake the GIS training at CAVS.

"Before this course, I had an introductory course in GIS and remote sensing but lacked 'hands on' experience on GIS." Says Syano a PhD student in Dryland Resource Management at the University of Nairobi. "This course gave me this experience through the many activities we did. I will be using GIS to determine both spatial and temporal vegetation cover changes. With the GIS software given as part of the course package, I continue to practice for more experience." He concludes.

While speaking during the closing ceremony of the training, Prof. Agnes Mwang'ombe, the Principal, CAVS, appreciated the newly introduced GIS course for granting the university an opportunity to minimize on the traditional forms of conducting survey. "As a college we are moving towards the right direction but we need to do more," she said.

The GIS lab was set up in June 2012 at CAVS by CSDES in line with the Centre's second objective that seeks to develop a dryland leadership learning program at the UoN that will result to greater capacity of students and faculty to address the problems of dryland ecosystems and societies.

CSEDES REACHES OUT TO YATTA COMMUNITY



Titus Masika gives a presentation to the University of Nairobi delegation at his farm in Yatta.

The first objective of the Centre for Sustainable Dryland Ecosystems and Societies (CSEDES) is improved coordination of interdisciplinary higher education research and outreach for drylands in Kenya. In light of this objective, CSEDES organized for a visit to a community-based development project dubbed "Operation Mwolyo Out" (OMO) in Yatta Constituency, Machakos County. The objective of the visit was to explore UoN/CSEDES-Community

partnership opportunities and strengthen outreach to communities in drylands. Some of the expected outputs of the visit included identification of the communities' research needs and documentation of lessons learnt and best practices.

Operation Mwolyo Out (Mwolyo, a Kamba word for donations) is a program that was initiated in 2009 after the drought that hit many parts of the country. The project was started by the Christian Impact

Mission Church (CIM) as an exit strategy for relief interventions. It was felt that previous, numerous relief interventions had failed to solve the chronic food insecurity and drought-related suffering the local community had suffered for a long time. The program intended to use the church as an agent of change in the community because it is perceived as a permanent and neutral body.

CIM chose an integrated community transformation model that addresses the various aspects of human dimensions including: religious, social, economic, technological, environmental and political dimensions. According to Dr. Titus Masika, Director, CIM, the model was meant to comprehensively deal with issues of climate change, food security and poverty.

The director highlighted the seven pillars of this model as: Community mobilization, water harvesting, agriculture, wealth, health and job creations, value addition, Industrial villages and market linkages. Dr. Masika called on the University of Nairobi to help the community conduct research in a systematic manner and assist the program to critically review and document its success stories. He also requested the University to assist in creating new but simple technologies and innovations especially on value addition. Among the challenges raised was the lack of storage facilities for excess biogas generated at farm level.



University of Nairobi delegation follows proceedings when they paid a visit to Yatta

In his remarks, Mr. Peter Kamande, the CSEDES Project Manager highlighted the vitality of partnership between the University and the community. Among the reasons for partnership he mentioned were; to upscale the integration of indigenous knowledge and modern science; enhance sharing of knowledge and experiences between researchers and communities; to create larger linkages for the community; encourage ownership of ideas; and synergy through joint resource mobilization.

EIGHT UON STUDENTS BENEFIT FROM THREE WEEKS FIELD STUDY EXPERIENCE IN 2013



Students of UoN and UoM take notes during the field course at Maasai Mara

Eight students from University of Nairobi (UoN) have benefitted from three weeks field study experience organized by the University of Nairobi's Centre for Sustainable Dryland Ecosystems and Societies in collaboration with overseas Universities. This brings the total number of field course beneficiaries in the past two years to 38.

The first set of students to benefit this year were; Hannah NyakioKamau and Omollo Erick Ouma. The two joined six students from Goshen College, Indiana, United States and two others from Karatina University for a collaborative field course in conservation and research methods in Savannas. The three weeks course started on 5th to 25th June 2013 and was hosted at Mpala Research Centre.

Six other students from UoN joined thirteen students from the University of Michigan (UoM) for a three weeks field study course in Maasai Mara and Laikipia from 3rd to 15th August 2013. The field course was titled: "Conservation and Development in Cultural Landscapes".

CSDS in collaboration with other Universities from abroad develop courses that enable students from a variety of different academic backgrounds to explore the intersections between conservation and develop-

ment, particularly the socio-political and ecological dimensions that strongly influence the development process and conservation outcomes. Likewise, a good portion of the courses are aimed towards making students familiar with the research process and developing their ability to carry out research effectively.

The experiential learning exercises are organized in line with CSDS main objectives for supporting:

- Development of enhanced capacity of students and faculty to address the problems of dryland ecosystems and societies in Kenya
- Comparative, trans- disciplinary approach in addressing the development and sustainability needs of dryland communities

The eight beneficiaries will be expected to write a report and present it for assessment by the Centre management team.



A picture of hipopotamus at Mara River

BRIEFS

CSDS AND IGAD FIRM TIES



IGAD and CSDS teams pose for a photo after the meeting

The University of Nairobi (UoN) through the Centre for Sustainable Dryland Ecosystems and Societies (CSDS) and the Intergovernmental Authority on Development (IGAD) will continue to collaborate so as to strengthen community resilience in the drylands.

This was revealed on Monday, 22nd July 2013 when Dr. John Kabayo, IGAD Consultant led a team of five members of staff from IGAD on fact finding mission to the UoN-Centre for Sustainable Dryland Ecosystem and Societies. Dr. Kabayo said that Kenya had been tasked with the responsibility of championing drought resilience in IGAD and so UoN had been identified as a strategic partner.

Dr. Kabayo said that IGAD looked forward to forge stronger partnership with UoN. He called on CSDS to develop a strategic direction that will address the needs of drylands.

The five members of staff from IGAD who visited alongside Dr. Kabayo were; TesfayeBesha, Abdi Roble, Chucrisayegh, Sait El DinJaw and AbdoupkaderAbdi.

CSDS STAFF ATTEND THE LAUNCH OF ASDSP IN KAJIADO COUNTY



CSDS manager, Peter Kamande and Administrative Assistant, Sylvia Sumare at the CSDS stand in Kajiado

The Centre for Sustainable Dryland Ecosystems and Societies (CSDS) staff attended the launch of Agricultural Sector Development Support Programme (ASDSP) in Kajiado County where they got a chance to interact and share with various stakeholders and community members about CSDS project. The launch took place on 17th July, 2013 at the Maasai Technical Training Institute (MTTI) grounds.

The Agricultural Sector Development Support Programme (ASDSP) is a sector-wide Programme implemented by the Government of Kenya in collaboration with Development Partners. The core focus of the Programme is to facilitate demand-driven, stakeholder-led and coordinated efforts by relevant public and private sector actors. These efforts will lead to transformation of the agricultural sector into innovative, commercially oriented, competitive and modern industry.

The CSDS project team was led by the CSDS Director/PI Prof. Jesse Njoka and Project manager Peter Kamande. Administrative assistant, Sylvia Sumare and Communication Consultant Daniel Kamau also attended the launch.

Speaking during the launch of the programme, the Deputy Governor of Kajiado County, Mr. Paul Ntiati called on all the stakeholders to work together to make sure there is value addition for agricultural produce in Kajiado County. He said that if all stakeholders will work together, the agricultural sector in Kajiado County will be transformed into more viable business and the citizens of Kajiado County will benefit economically.

CSDS STRENGTHEN OUTREACH PROGRAM IN SAMBURU COUNTY

One of the objectives of the Centre for Sustainable Dryland Ecosystems and Societies (CSDS) is increased impact of education, research and outreach on livelihoods and the sustainability of Kenyan drylands. In a bid to fulfill this objective, a team of three from CSDS visited Samburu County- Archers' Post to firm ties with the Samburu Community and to supervise research work of Ms. Caroline Genga, a master's student pursuing range management at the University of Nairobi (UoN) and a beneficiary of CSDS research for development award. Mrs. Genga is undertaking research on indigenous technical knowledge among the Samburu.

The team comprised of: Dr. Moses Nyangito- Senior Lecturer at UoN and CSDS Management Committee Member; Mr. Peter Kamande- CSDS Project Manager; and Daniel Kamau- CSDS Communication Consultant. The three got a chance to interact and share with the community on how the University of Nairobi can promote development in the region through action research. One of the entry points discussed was how research findings can contribute to development planning by the Samburu County Government.

The CSDS team met with several groups including community elders, women and the Samburu Moran's. The team also visited the University of Nairobi extramural Centre in Isiolo town in a bid to forge CSDS plans for rolling out open and distance learning (ODL) and E-learning courses for Isiolo and adjacent communities.



Samburu Morans follow discussions



Samburu elders with the CSDS team in the meeting



CSDS team pose for a photo with Sambutu women after a meeting



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