

AFRICAN SOIL SCIENCE SOCIETY (ASSS)
PRESIDENT'S REPORT

Given by:

Dr Martin YEMEFACK, President of ASSS

The Principal Secretary (PS), Ministry of Agriculture,

Honourable the Governor of Nakuru County

The Director of the Kenya Agricultural Research Institute (KARI),

The Chair, Soil Science Society of East Africa (SSSEA),

Mesdames et Messieurs,

Ladies and Gentlemen,

Dear participants of the joint 27th conference of the Soil Science Society of East Africa (SSSEA) and the 6th International Conference of the Africa Soil Science Society (ASSS),

It is my pleasure and honor to speak here on behalf of the Executive Bureau of the Africa Soil Science Society and all of you who come from so many parts of the world to attend this regional and continental joint-event, a forum for disseminating the acquired knowledge and technology for the benefit of the continent population and for sound deliberations on the different sub-themes of the colloquium.

As you all know, one of the main objectives of the Africa Soil Science Society (ASSS) is to create at the Africa continental level, the conditions for more ideas and debates on issues related to soil resource and its use for sustainable development. Being a network of national and regional societies of soil science, this joint event is especially significant because, ASSS is an organization of the civil society which also aims at strengthening the capacity of soil scientists and lobbying for policies making across the



continent; this can only happen through a wide dissemination of current knowledge on soils and their management among both specialists and technicians as well as the public at large.

It is in this regard that the Africa Soil Science Society as a non-profit organization founded in 1986, has successfully organized five International Conferences: Kampala (1988), Cairo (1990), Ibadan (1994), Accra (2007) and Yaounde (2009); gathering together soil scientists, land planners and users as well as all related specialists interested on soil challenges for a sustainable development in Africa.

The issue in Africa is that, the rapid transformation of the social and environmental contexts, together with the impacts of agricultural practices on soil, water and atmosphere, has brought new questions and challenges to soil science. Moreover, the global environmental problems such as land degradation and desertification, loss of biological diversity and climate change have opened new debates on the multifunctional role of soils. Indeed, soils are no longer considered only as a resource base for quality food production, and more recently for bio-fuels agriculture, but also as a biological reserve and carbon sink.

In order to achieve these challenges for sustainable development of the Africa continent, soil scientists should assist decision making on:

- (i) how to better use soils and soil functions within a diversity of land users;
- (ii) how to develop more suitable agricultural systems for various soil types, taking into account the conservation of soil functions, the mitigation of greenhouse gas emissions and the control of diffuse pollution and soil pollutants, etc. ;
- (iii) the role played by soil in climate change adaptation and mitigation policies and as well as for sustainable development and food security.
- (iv) the mechanisms and scientific tools for more sustainable soil resources management in Africa;

- (v) what to do in the field of economy, policy and education in order to improve soil functions related to air, water, environment and life quality.

All these aspects will constitute the core topics to be discussed during this joint International Conference on Soils here in Nakuru 2013.

So, we need new scientific bases in soil science, if we want to offer real prospects for increasing food production, resource sustainability and environmental protection. The theme of this conference was chosen to develop the scientific, technical and socio-economic order to identify appropriate recommendations on soil facing new global challenges.

Ladies and Gentlemen,

Let me have a glance at global level, to recognize that, on the basis of a recommendation by its High-Level External Committee (HLEC) on the Millennium Development Goals, FAO has recently established a Global Soil Partnership (GSP) to tackle these soil related problems at global, continental, regional and national levels.

This is highlighted in the GSP Document as follows: *“The mandate of the Global Soil Partnership is to improve global governance of the limited soil resources of the planet in order to guarantee healthy and productive soils for a food secure world, as well as sustain other essential ecosystem services on which our livelihoods and societies depend including water regulation and supply of clean water, climate regulation, biodiversity conservation and cultural services. The GSP is also to develop capacities, build on best available science, and facilitate/contribute to the exchange of knowledge and technologies among stakeholders, existing multilateral environmental agreements, and technical and scientific bodies of a similar nature, for sustainable management of soil resources at all levels with a view to enhancing food security, protecting ecosystem*

services, and in this way contributing to poverty alleviation in an era of global demographic growth and unsustainable consumption patterns.”

Our national and regional soil science societies should take advantage on this GSP initiative. Indeed, within GSP framework, Regional Soil Partnerships (RSP) are being established among interested and active stakeholders. These RSPs will work in close coordination with FAO Regional Offices and will establish an interactive consultative process with national soils entities (soil survey institutions, soil management institutions, scientific soil societies, and soils scientists working in land resources, climate change and biodiversity institutions/programmes, etc), as well as with regional soil science societies and other relevant regional mechanisms under the various related conventions. ASSS, in close collaboration with the African Union commission, will spare no effort to assist your respective soil science societies to be fully involved and effective in the international arena.

Coming back to the ASSS activities, during the 5th conference in Yaounde, a parallel meeting for the preparation of a Soil Atlas for Africa took place. This initiative, coordinated by the Joint Research Centre of the European Commission and the ASSS, was an outcome of a multi-stakeholder partnership (FAO, ISRIC, IUSS, JRC, etc.). By being actively involved in the production of a Soil Atlas of Africa, the utmost aim was to build on the knowledge and expertise of the African specialists, and to contribute to capacity building at individual and network levels which will pave the way for enhancing the visibility of African expertise at international level. This was also to ensure that the final product be useful and relevant for all stakeholders including researchers, land managers, students, public at large, and policy makers who all need good baseline information about soils and land – for research and education, for development planning, avoidance of natural hazards, investment, and management.

I am proud to inform you all that this product has been published this year 2013 and this joint event in Nakuru (Kenya) will be honored to host the launching ceremony of The Soil Atlas of Africa on the 22 October 2013. Each participant will have its own copy for disseminating the awareness on our soil resources. This is a great achievement, but we, soil scientists in Africa, still have more to do for the development of our continent.

The ASSS acknowledges with thanks the contribution and the participation of colleagues from all corners of the continent but also from other continents (Europe, Asia, America,); this demonstrates the great importance of our conference topic for the sustainable management of the soil resource, and you will agree with me that this forms an essential technical issue but also a major political, economical and environmental challenge for scientists and policy makers. It is in this regard that, all different soil related sciences including pedology, biology, chemistry, physics, microbiology must together, contribute to the better understanding of the Genesis, the evolution and functioning of soils in order to determine suitable and sustainable management options for each soil.

Dear participants, Ladies and Gentlemen

Allow me to express, on behalf of ASSS, my sincere thanks to all those who worked very hard for the organisation of this important event. Indeed, today my utmost thanks are to the Soil Science Society of East Africa, the Kenyan Agricultural Research Institute (KARI), local universities and to the local organizing committee. I also wish to thank the eminent members of the international scientific committee of the conference, who accepted to give scientific guidance and active support, therefore enhancing the scientific and technical level of the event.

I would like also to thank the Kenyan authorities for their support at all levels, in particular, the Ministry of Agriculture, the Governor of Nakuru, and the various government departments.

Our gratitude goes also to people and institutions that have actively supported us in one way or in another during the organisation process. I would like to cite:

- The JRC of the European Commission, who sponsored the Soil Atlas of Africa and the participation of all the experts of the editorial board, Special thanks to Dr Awyn Jones for all the supports;
- FAO, particularly Dr Lamourdia Thiombiano, Deputy Director of FAO Africa region, who has consistently supported all initiatives and actions of our association; and the incoming GSP and its secretariat,
- ICRISAT, IAEA and AGRA, for their financial support, which allow many African scientists to participate to this conference
- AusAID and the University of Sydney, through Professeur Odeh, for their multiple supports, allowing many young African scientists to participate to this conference ;
- All of you.

Vive la science du sol, et que vive l'Afrique,

Je vous remercie. Thank you very much. Asante saana

DIRECTOR'S WELCOME SPEECH TO 27TH SOIL SCIENCE SOCIETY OF EAST AFRICA (SSSEA) AND THE 6TH AFRICAN SOIL SCIENCE SOCIETY (ASSS)

The Agriculture Secretary

The Governor, Nakuru County

Invited guests

Participants

Ladies and Gentlemen

I am delighted to welcome you to the 27th Soil Science Society of East Africa (SSSEA) and the 6th African Soil Science Society (ASSS). As you are all aware, there is severe land degradation manifested by soil erosion (water and wind), soil nutrient depletion without nutrient replenishment due to continuous cultivation, deteriorating soil health, declining soil fertility, poor agronomic practices and loss of biodiversity. Climate change is also a factor of concern due to its impacts such as severe soil desiccation from prolonged dry spells followed by loss of soil from subsequent intense rainfall. The major causes of degradation in East Africa and indeed the whole of Africa are growing populations and increasing demand for food and cash income, extensification rather than intensification of agriculture, inadequate use of conservation agriculture, limited support by local governments and institutions. The increasing land degradation, impacts of climate change, drought and desertification results in lower productivity of arable lands and ecosystem services. This situation has direct effects on agriculture particularly in engaging in agriculture as a business. *It is in view of this that the Soil Science Society of East Africa in collaboration with African Soil Science Society have organized a joint conference to critically analyze Land and Water Management (LWM) technologies, innovative products and services; and strategies benefiting small-scale agriculture in Africa.*

Ladies and gentlemen, I am informed that *this conference will focus on the contribution of land and water management in the Agricultural Production Value Chains, addressing threats*

and opportunities associated with climate change, and scaling up of proven technologies for transformational impact on the livelihoods of small-scale farmers in Africa. In addition, land use planning and policy in line with the Comprehensive Africa Agriculture Development Programme (CAADP's) goal of eliminating hunger and reducing poverty through agriculture, will be addressed during this conference. The conference will also touch on the pillars relating to sustainable land management; market access; increasing food supply and reducing hunger. I am therefore greatly encouraged by this joint initiative between Soil Science Society of East Africa and African Soil Science Society in delivering these services.

Ladies and gentlemen, this conference has attracted re-known and distinguished scientists among other speakers. Over 200 participants from Africa, Asia and Europe are attending this conference. It will be conducted through plenary sessions, moderated discussion fora, round table discussions, exhibitions and plenary presentations in three parallel sessions. Considering the wide range of themes that will be covered in this conference, I am sure the outputs will greatly contribute to improved agricultural productivity in smallholder African farms. I therefore sincerely wish to thank the organizers of this Conference and look forward to seeing the dissemination of conference outputs through Conference Proceedings, book chapters and other relevant media.

Ladies and gentlemen, the Kenya Agricultural Research Institute (KARI) has hosted the secretariat of the Soil Science Society of East Africa Kenya chapter over many years. In the preparation of this conference meeting where the *African Soil Science Society is also involved*, KARI provided the human resource, infrastructure and logistical support to ensure the meeting becomes a success. I am happy to be associated this partnership because KARI has always encouraged its scientists to conduct multidisciplinary research and share knowledge with other relevant research and academic institutions both in the country and outside. I would also like to

welcome those who wish to visit our game parks and other sceneries of interest to do so. Kenyans are friendly and hospitable people while our hotels offer interesting and tasty cuisine. Please do not forget to sample our delicious “Nyama choma” while in the country.

With these remarks, ladies and gentlemen, it is my honour and pleasure to welcome you to the 27th Soil Science Society of East Africa and the 6th *African Soil Science Society joint conference*.

THANK YOU

REMARKS BY THE NAKURU GOVERNOR ON 21ST OCTOBER 2013 DURING THE OPENING OF THE 6TH AFRICAN SOIL SCIENCE SOCIETY AND 27TH SOIL SCIENCE SOCIETY OF EAST AFRICA CONFERENCE, AT CATHAY HOTEL NAKURU

The Principal Secretary, State Dept for Agriculture

Director-KARI,

Executives, Soil Science Society of East Africa & African Soil Science Society,

Provincial Heads,

Distinguished Guests,

Esteemed Farmers & Research Scientists,

Ladies and Gentlemen,

It gives me great pleasure to welcome you all to Nakuru County, for the 6th African Soil Science Society and 27th Soil Science Society of East Africa Conference. I also wish thank the Principal Secretary for Agriculture Sicily Kariuki for finding time to be with us here today in Nakuru.

The Nakuru County Government is honored to host so many Land and Water Management scientists and professionals from the agricultural and rural development sector, including the international agricultural research institutions and the private sector. Thank you for making time to join us and **Karibuni Kenya!**

This Conference is significant for us in Kenya because we have embarked on a devolved government system to improve efficiency in the delivery of services to Kenyans, which require the involvement of different stakeholders. The County Government of Nakuru is proud to host this international conference, and will seek to harness synergies and complementarities in agricultural expertise from different players including agricultural research to infuse efficiency and effectiveness for transformational impact of the county's agricultural landscape. I believe

that the resolutions from this gathering will certainly apply to many other parts of Kenya, East Africa, and the whole continent.

Ladies and Gentlemen, policy makers at national and in international level face challenges with the changing face of agriculture in the 21st century especially in formulation of policies that support the effort to lift millions of people out of poverty and hunger as well as reduce the impact of agriculture on the environment and sustain water and land resources. These are issues that go beyond national boundaries. One thing I would urge you to remember is that as policy makers, we are often blamed for not formulating suitable policies but as scientists, you share in this blame as well since without empirical evidence from among you in this room, policy making may not end up bringing the required fundamental changes in our societies.

Ladies and Gentlemen Nakuru is a key agricultural hub located in the Central Rift Valley Region of Kenya. The County in an area of 7,495.1 km² and has a human population of 1,603,325. It is endowed with 14 agro ecological zones thus accommodating a wide range of crops. Agriculture is the main source of livelihood for our people. The main cash crops grown are wheat, pyrethrum, and horticulture while the main food crops are maize, beans, Irish potatoes and sweet potatoes. Horticulture (vegetables, flowers and fruits) is a major enterprise both for local and international markets. Most Kenyan flowers in European market come from Nakuru county.

We host some important agricultural institutions in the country which include Egerton University, Kenya Plant Health Inspectorate Services-Nakuru region, four KARI Centres of Naivasha, Njoro, Lanet, and Molo, Baraka Agricultural College, Dairy Training Institute, and Agricultural Development Corporation farm, Lanet. In addition we have a fertilizer company, Mea Ltd.

I'm aware that we have adopted the agricultural Product Value Chain approach characterized by vertical and horizontal linkages comprising resource management, production, post harvest processing, and marketing. This county is also well served by post harvest processing and marketing infrastructure along this chain such as cereal stores, grain handlers, canning, milling, refineries and dairy collecting enterprises. I believe that Nakuru County has a lot of potential in agriculture, which is if harnessed efficiently will enable realizing the Kenya development blueprint, Vision 2030. Apart from reducing extreme hunger,

malnutrition and poverty, we aspire to generate employment for the poor, women and youth by commercializing agriculture in Nakuru county.

As you continue with your deliberations, it is my hope that you will also make time to visit spectacular tourist sites in Nakuru namely; Lake Nakuru National Park, Hell's Gate, Menengai and Longonot Craters, Naivasha and Elementaita Lakes, Hyrax Hill and the Mau Forest. The Great Rift Valley, also a tourist attraction runs through this County and has topography characterized into three:

- The Mau Escarpment with average annual rainfall of 1,270mm and covering areas of over 2,400 meters above sea level.
- The valley floor with lakes and volcanoes at 1,520 metres to 1,890 metres above sea level.
- The Kinangop escarpment in the East at 2,100 to 2,500 metres above sea level

The County government has committed itself to support you, and we hope to be with you again during the closing ceremony. Let me once again thank you for having chosen Nakuru to be the venue for this meeting.

Thank you - Asanteni

**Conference Opening Speech for the Principal Secretary, Ministry of
Agriculture, Livestock and Fisheries Development**

**During the Soil Science Society of East Africa (SSSEA) and Africa Soil
Science Society (ASSS) Conference, at Nakuru – Kenya, 20-25 October 2013**

Director, Kenya Agricultural Research Institute

Directors, Sister Research Institutes

The Governor, Nakuru County

The Chairman, African Soil Science Society

The Chairman Soil Science Society of Eastern Africa

Executive Committee Members of the Soil Science Society of Eastern Africa

Participating Researchers & Scientists

Invited Guests

Participants

Ladies and Gentlemen

It gives me great pleasure to be here today to officially open the 27th Soil Science Society of Eastern Africa and 6th African Soil Science Society Conference

I am impressed by the theme of the conference namely:

“Transforming Rural Livelihoods in Africa: How can land and water management contribute to enhanced food security and address climate change adaptation and mitigation?” because it is very relevant to the Kenyan situation, in particular and Africa in general.

The current situation in Kenya is such that it requires a total transformation of rural livelihoods through revolutionizing agriculture into commercialised enterprises. As it is now, most agricultural products in Kenya are produced by smallholder farmers who do not or add little value to their agricultural products. Our focus is on these farmers whose capacities we want to enhance towards adopting and improving agricultural products values chains – toward improved agricultural commercialization. The policy environment will be reviewed to provide enabling conditions for this.

Ladies and gentlemen, it is worth noting that the importance of agricultural sector in Kenya cannot be overemphasised since it is the mainstay of the Kenya’s economy, accounting for:

- Over 26% of Kenya’s GDP
- 60% of export earnings, and

- Employing over 80% of Kenya's workforce.

While the crops sub-sector contributes 60% of the agricultural GDP, the livestock and fisheries sub-sectors contribute the remaining 40%.

However, agriculture has at the same time experienced some negative growth rates in the recent past. Further, like in the rest of Sub-Saharan Africa, Kenya's agriculture is mainly rain-fed and therefore highly vulnerable to climate change and variability.

It is also known that in Kenya agricultural growth is constrained by, among other factors, declining per capita land resource, resource degradation and declining soil fertility, increasing climate change and variability, limited appropriate technological options, and inadequate transfer of appropriate technologies. These problems are further compounded by the fact that Kenya is among the sub-Saharan countries whose agricultural development lags behind her population growth. This has contributed significantly to the high poverty levels in the country.

In view of the declining land holdings, agricultural growth must now be led by enhanced technology development, dissemination and adoption as well as enterprise intensification and substitution all geared towards high value agricultural products with potential for processing. There is also need for small scale farmers to diversify and specialize in at least 2-3 enterprises in which they have comparative advantages.

Ladies and gentlemen, I am delighted to note that during this conference, a particular focus is being dedicated in dealing with the contribution of Land and Water Resource Management in the Agricultural Production Value Chains. This focus is particularly addressing threats and opportunities associated with climate change, and the scaling up of proven technologies and innovations for transformational impact on the livelihoods of African small-scale farmers. This focus will encompass land use planning and policy issues. I am also told that the conference touches on the pillars relating to sustainable land management; market access; increasing food supply and reducing hunger, all of

which are in tandem with the Comprehensive Africa Agriculture Development Programme goal of eliminating hunger and reducing poverty through agriculture. Further, I am also informed that this will be achieved through presentations of research findings, technology dissemination and adoption. Outputs from the conference will also contribute towards informing the African Ministerial Conference on the Environment.

Ladies and Gentlemen, I am also happy to learn that the SSSEA and ASSS have over the years contributed towards the growth of the agricultural sectors of many African countries, Kenya included. The Societies, which I understand are not-for-profit making, have provided opportunities for interactive information exchange through biennial regional forums to diverse soil scientists and associated professionals from Africa and indeed the world over. I understand that the forums bring together researchers from national and international organizations, universities, extension workers, NGOs, policy makers, farmers, civil society, the private sector and other relevant stakeholders.

I am also told that this conference has attracted about 200 professionals and practitioners in agriculture and rural development. The participants are drawn from Africa, USA, Australia, India, and Europe. While participants from Kenya, South Africa, Zambia, Tanzania, Uganda, Rwanda, Nigeria, Cameroon, Ivory Coast, Australia and India will be presenting papers in this joint conference, I am encouraging them to also sample Kenyan social life and enjoy our beautiful scenery of the Great Rift Valley.

Discussions and recommendations will be generated through invited keynote papers, thematic oral and poster presentations, exhibitions by researchers, farmers, private sector and conducting a field excursion. The expected outputs will include proceedings of the conference, refereed journal papers, book chapters from the various thematic areas, farmer extension leaflets, and policy briefs. These outputs are expected to impact positively on food security and the livelihoods of African farmers.

With those few remarks, it is now my pleasant duty to declare this 27th Soil Science Society of Eastern Africa and 6th African Soil Science Society Conference officially open.

Thank you.

Joint Communiqué of the 6th Africa Soil Science Society (ASSS) and 27th Soil Science Society of East Africa (SSSEA) conference

25 October, 2013, Nakuru, Kenya

1. The Africa Soil Science Society (ASSS) and the Soil Science Society of East Africa (SSSEA) held their 6th and 27th Joint International Congress in Nakuru, Kenya from 20-25 October 2013.
2. The ASSS was founded in 1986 as a non-profit making scientific organization grouping scientists working in the area of soil science and application of soil information in Africa. The Society promotes and fosters Soil Science in all its facets and gives support to regional and national societies.
3. The SSSEA was founded 1975. It is a non-political and non-profit making organization that draws membership from individuals, soil scientists, agronomists, socio-economists and corporate organizations for purposes of advocating, raising awareness and coordinating EAC actions on soils as a vital resource for achieving sustainable development. It draws membership from East Africa Community member countries of Kenya, Uganda, Tanzania, Rwanda and Burundi. The society promotes linkages between food security, ecosystem services, sustainable development and poverty reduction by addressing the sustainable management of soils at all levels based on the best science available and considering the diverse regional contexts.
4. The conference, which was opened by the representatives of the Kenyan authorities, was attended by over 200 participants from countries across the Africa, Europe, America, Asia, and Australia.
5. The focus of the conference was on the contribution of Land and Water Management (LWM) to food security in the context of climate change and in line with the strong of soil scientists across Africa to support: 1) the African Union's/NEPAD comprehensive African Agriculture Development Programme, in particular pillar no 1 “sustainable land and water management”; and 2) the Nairobi Declaration on the African Process for Combating Climate Change. While these issues were covered during the ASSS 5th conference in Cameroon in 2009 as future goals of the ASSS, the conference shared and discussed research findings around Agricultural Production Value Chains, addressing the threats and opportunities associated with climate change, and scaling up of proven technologies and innovations for transformational impact on the livelihoods of African small-scale farmers. In addition, land use planning and policy was addressed during this conference.
6. Up-to-date information, which was shared among participants and the media including radio and television, will be published in proceedings, books, pamphlets, leaflets, special issues of international journals. The outputs from the conference will also contribute towards informing the African Ministerial Conference on the Environment (AMCEN).
7. Recognizing and re-affirming the expertise and commitment of its members, the ASSS and the SSSEA are ready to support widespread dissemination and use of knowledge from research and from experiences of projects dealing with sustainable land management; and also to implement urgent actions to meet the current and future challenges in Africa. For this purpose, African soil scientists call for a political support and for a significant increase of investments to result in an increased productivity and preservation of soil resources, in particular by African governments. Increasing investments from national resources would be an expression of an important political willingness of African states, which may help catalyse contributions from development partner agencies and the international community.
8. It is paramount that the role of soils and Soil Science in ensuring food security and providing other key ecosystem services are given appropriate recognition. These are fundamental for sustainable

production and adaptation to climate variability and climate change. In this context ASSS and the SSSEA and their members are committed to:

- i). Engage ASSS and SSSEA members and other relevant national institutions into generating, improving and disseminating quality soil data for supporting actions and policies particularly with regard to sustainable land management. In this regards, efforts should be made to capitalize existing analogue data and information from national soil bureau in a way to develop solid soil databases.
 - ii). Strengthen the role of land and water management and soil quality preservation in national policies and development plans.
 - iii). Explore the possibilities for scaling up climate-smart agricultural practices developed by the scientific research community in order to contribute increasing the adaptive capacity of vulnerable populations and institutions.
 - iv). Engage for the first time in these conference series, the focal stakeholders- the farmers, in which the issue of how best soil research outputs can be passed on to them was discussed.
9. During the congress, the first ever Soil Atlas for Africa was officially launched by the Principal Secretary representing the Honorable Minister of Agriculture, Livestock and Fisheries, Kenya. This initiative, coordinated by the Joint Research Centre of the European Commission and the ASSS, is an outcome of a multi-stakeholder partnership (FAO, ISRIC, IUSS, and soil science experts from Africa and Europe). The atlas is a collection of vital information on African soils and highlights the importance of this non-renewable resource. The atlas aims to raise awareness at all levels - from politicians to the general public - of the significance of soil to the economic wellbeing across Africa. It is a much-needed source of information for policy makers and researchers and will be the basis for a pan-African assessment on the state of soil resources.
10. The new Executive Bureau for the period 2013-2015 was elected as follows: President; Martin Yemefack, Secretary General: Cyrus Githunguri; Vice Sec Gen: Dr. Justice Nyamangara; Treasurer: Ms. Gisele Tapsoba; Ex officio: Lamourdia Thiombinano; Auditor 1: Vincent Aduramigba-Modupe Auditor 2: Dr. Nyambilila Amuri
11. The ASSS and the SSSEA acknowledge, with appreciation, the efforts and contributions of the Kenyan government, Kenya Agricultural Research Institute (KARI), ICRISAT, AGRA, NACOSTI, MEA Ltd, Virginia Tech, Australian Agency for International Development (AusAID), the University of Sydney and JRC for supporting this conference.
12. We are convinced that through better knowledge of soil function and sustainable use of lands at national and continental levels, soils and soil science will contribute towards continual sustainable development and food security. Participants therefore expressed their commitments to strengthen their national and sub-regional soil science societies in order to actively contribute to the ASSS business. We need actions, not words!

**PRESS RELEASE BY SOIL SCIENCE SOCIETY OF EAST AFRICA (SSSEA) AND THE
AFRICA SOIL SCIENCE SOCIETY CONFERENCE, NAKURU, KENYA**

FIRST SOIL ATLAS OF AFRICA PUTS SPOTLIGHT ON AFRICA'S LIFE SOURCE

The Soil Atlas of Africa book, a collaborative initiative of the Joint Research Centre (JRC) of the European Commission (EC), the Food and Agriculture Organization of the United Nations and the Africa Soil Science Society (ASSS) was launched at the 27th Soil Science Society of East Africa (SSSEA) and the 6th Africa Soil Science Society (ASSS) joint conference in Nakuru, Kenya on October 22, 2013. The launching was done by the Principal Secretary, Ministry of Agriculture, Sicily Kariuki. For the first time ever, this atlas collects vital information on African soils and highlights the importance of this non-renewable resource. With its stunning full colour maps and illustrations, it explains in a comprehensible and visually appealing way the diversity of soil across the African continent and explains why it is so important to preserve this precious resource.

Healthy and fertile soils are the cornerstones of food security, key environmental services, social cohesion and the economies of most African countries. Up to 98% of all calories consumed in Africa originate from the soil resources of the continent. Unfortunately, soil in Africa tends to reach public awareness only when it fails to feed the people living from it. The aim of the atlas is to raise awareness at all levels – from politicians to the general public - of the significance of soil to life in Africa.

Africa is the only continent in the world where the annual per capita food production lags behind population growth. The fundamental root cause of this decline is land degradation and soil fertility decline over time. The Atlas explains the origin and

functions of soil, describes the different soil types and their relevance to both local and global issues. It also discusses the principal threats to soil and the steps being taken to protect soil resources. Diligent use of this Atlas will result in better land and water management practices, which will lead to increased food production, ensuring food security and environmental protection.

Coordinated by the European Commission's in-house science service, in collaboration with the African Union and the UN Food and Agriculture Organization, it compiles the contributions of dozens of soil experts from Africa and Europe. It is a much-needed source of information for policy makers and researchers and will be the basis for a pan-African assessment on the state of soil resources to be launched at the conference of the African Soil Science Society in Kenya, for the first time in Africa on October 22, 2013.

Some key facts about African soil presented in the Atlas:

- 98% of all calories consumed in Africa originate from the soil resources of Africa.
- Organic matter in the soil can store more than ten times its weight of water, which reduces risk of floods and protects underground water supplies.
- Africa's soils store about 200 gigatonnes of organic carbon - 2.5 times more than contained in the continent's plants.
- Tropical rainforest soils are not naturally fertile but need a constant supply of organic matter from natural vegetation. Deforestation breaks this cycle.
- Over half of Africa's land surface is characterized by sandy soils (22%), shallow stony soils (17%) and young, weakly developed soils (11%).
- Many of the soils of Africa are severely degraded by erosion and excessive nutrient depletion. This explains the low productivity of African soils, mainly due

to lack of plant nutrients, not adequately replenished by artificial fertilizers. On average, African farmers, due to rural poverty, are able to apply only 10% of the nutrients that farmers in the rest of the world return to the soil.

Nakuru 22 October 2013

Note of words for the launching of the atlas by the Minister/PS

- I'm pleased to note that soils scientists from Africa and Europe have produced for the first time a soil atlas for our continent.
- *The soils of Africa have a crucial role in climate change adaptation and mitigation policies and they are the basis for sustainable development and food security.*
- This atlas is undoubtedly a source of knowledge to guide our behavior for the sustainable management of this capital resource for human being.
- I challenge all of you to make use of it to improve the livelihoods of our African peoples.
- It my pleasure to officially launch this book which I trust, will contribute to raising awareness at all levels – from politicians to the general public - of the significance of soil to life in Africa.

TALKING NOTES BY THE CHAIRMAN OF SSSEA PROF DIDAS KIMARO ON 25TH OCTOBER 2013 DURING THE CLOSING REMARKS OF THE 6TH AFRICAN SOIL SCIENCE SOCIETY AND 27TH SOIL SCIENCE SOCIETY OF EAST AFRICA CONFERENCE, AT CATHAY HOTEL NAKURU

Esteemed Scientists, Farmers,

Ladies and Gentlemen,

- It is a great honor for me to make closing remarks for the 6th African Soil Science Society and 27th Soil Science Society of East Africa Conference.
- I wish thank the national and county governments who in one way or another supported this meeting and all of you for having found time to be with us here in Nakuru. I also wish thank all the presenters of the various papers and the organizers for who worked tirelessly to ensure that the conference was a success.
- As I participated in this week long conference, I had an opportunity to share discussions, knowledge, information and technology in the plenary and parallel sessions and I am convinced that all these big ideas will be harnessed to improve agricultural productivity on smallholder farms in Africa.
- The Soil Atlas of Africa book, a collaborative initiative of the Joint Research Centre (JRC) of the European Commission (EC), the Food and Agriculture Organization of the United Nations and the Africa Soil Science Society (ASSS) launched here. The atlas collects vital information on African soils and highlights the importance of this non-renewable resource. The bottom line is, *soils of Africa have a crucial role in climate change adaptation and mitigation polices and they are the basis for sustainable development and food security*
- Ladies and Gentlemen, as we Soil Scientists pick our bags heading home, we don't need to be reminded that soils of Africa are severely degraded by erosion and excessive nutrient depletion. This explains the low productivity of the soils, mainly due to lack of plant nutrients, not adequately replenished by artificial fertilizers. We

are informed that on average, African farmers, due to poverty, are able to apply only 10% of the nutrients that farmers in the rest of the world return to the soil.

- *Sadly*, Africa is the only continent in the world where the annual per capita food production lags behind population growth. The fundamental root cause of this decline is land degradation and soil fertility decline over time. This calls for synergies and complementarities from different players including the national and international level policy makers and scientists to infuse synergies for the sustainable management of this resource capital.
- We interacted with farmers who challenged us to improve the livelihoods of our people, and we must take up this challenge.
- Finally, this conference has recognized and re-affirmed the expertise and commitment of its members, to support widespread dissemination and use of knowledge from research and experiences of projects dealing with sustainable land management. We soil scientists have also made a commitment to implement urgent actions to meet the current and future challenges in Africa and for this purpose, call for a political support and for a significant increase of investments to result in an increased productivity and preservation of soil resources, particularly by African governments.

Thank you all and Kwaheri!