



Ecological Society for Eastern Africa
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CONFERENCE ANNOUNCEMENT AND CALL FOR PAPER ABSTRACT

**Theme: Climate Change and Natural Resource use in Eastern Africa:
Impacts, adaptations and mitigation**
Date: 19th – 21st May, 2010

Venue: Kenyatta University
Kenyatta University Conference Center – (KUCC) - Nairobi, Kenya

Introduction:

The Ecological Society for Eastern Africa (ESEA) will host its 3rd **Regional Scientific Conference** from the 19th -21st May, 2010 at Kenyatta University, Nairobi , Kenya. The theme for the Conference is: **“Climate Change and Natural Resource use in Eastern Africa: Impacts, adaptations and mitigation.”**

The Ecological Society for Eastern Africa (ESEA) is not-for-profit, networking organization, bringing together individuals and institutions participating in ecological research and applications to development in Eastern Africa. Member countries are: Ethiopia, Uganda, Kenya and Tanzania with the secretariat based in Nairobi, Kenya.

ESEA seeks to promote sustainable development through wise use of the natural resources for prosperity and future of the people of Eastern Africa. This is to be achieved through high quality research, education, technological innovations, information and resource sharing. ESEA also coordinates the collation and dissemination of information relating to ecology, natural resource management and biodiversity conservation in eastern Africa.

On behalf of the Ecological Society for Eastern Africa, the Local Organising Committee (LOC) invites you to the 3rd Scientific Conference and looks forward to welcoming you as a participant. The conference is open to all professionals who are involved with science and practice of ecology within the eastern African region. Students are particularly encouraged to use this forum to share their work with other scientists in the region.

ESEA 2010 Conference Concept

The eastern African region has diverse landscapes and ecosystems as well as a high diversity of flora and fauna. The region, also known as the cradle of mankind, has been shaped by natural evolutionary processes and long history of human influence. Biodiversity here is an asset of regional and global significance. However, trends in global climate change and pressure from rapidly growing human population and the associated socio-economic development activities are posing serious threats to landscapes and biodiversity therein. Thus, sustaining a reasonably high growth rate to match the human population growth rate coupled with ensuring environmental and natural resources integrity is a key challenge to the region.

Africa is the hottest continent with deserts and drylands covering over 60% of land surface. Many in rural setups are directly dependent on natural resources. Current use of natural resources has taken little consideration of need for sustainability. Consequently, environmental status is characterised by land degradation and desertification, water stress, declining biodiversity, deforestation, rising pollution and rapid urbanisation. Climate change is likely to intensify these conditions and alter the environment even further. Although Africa emits only 4% of total global carbon dioxide emissions, its inhabitants are projected to suffer disproportionately from the consequences of global climate change. In turn this will adversely affect natural resource use further.

It is also true that most Africans, across economic and social statuses, are poorly informed on the climate change paradigm, its threats and opportunities. It is imperative that networking societies, such as ESEA, provide forums for generation and sharing of information on climate change. On 19-21 May 2010, ESEA proposes one such forum to bring scientists, climate change experts, policy makers and implementers, communication agents, vulnerable communities and the general public together. The meeting will address a wide range of climate change topics with the aim of increasing awareness of vulnerabilities, impacts and targeted adaptation measures that can be applied in the region with the aim of distilling knowledge and raising awareness on:

- impacts on natural and human systems
- best practices of adapting to the impacts
- mitigation strategies
- user friendly methods of communicating climate change issues in eastern Africa.

These issues will serve as substantive sub themes for paper and plenary discussions

Conference Sub-Themes

a) Impacts

- Impacts of climate change on natural ecosystems
- Impacts of climate change on human ecosystems

b) Adaptation

- Climate change adaptation programs: best practices in Eastern Africa

c) Mitigation

- Climate change mitigation policies and practices

d) Communication

- Effective communication of climate change information to the public.

e) Student competition will have a broad theme selected from any of the above.

CONCEPT ON SUB-THEMES

1. Impact of climate change on natural ecosystems

Climate is an integral part of ecosystems and organisms have adapted to their local climatic conditions over time. It is a factor that has the potential to alter ecosystems and the many resources and services they provide to each other and to society. This is because the biophysical and bio-geochemical activities of an ecosystem are physically constrained by the average meteorological conditions of the site. Processes like photosynthesis, respiration, transpiration, decomposition, and animal physiological responses react to the light, temperature, and water conditions that prevail throughout the growing season. Consequently, changes in daily, annual and seasonal averages of climatic elements will almost certainly impact on the performances (productivity) of these systems in one or more number of ways. Understanding ways in which natural ecosystems are impacted by these climatic changes is critical in designing mitigation approaches.

The upcoming conference will provide forum for sharing information on how the ecosystems, habitats, communities, species and populations in the region are impacted by climate change.

The aim here is to deepen our understanding on impact of climate change on the regional ecosystems through case studies.

Output from papers and plenary discussion under this sub-theme should lead to a checklist of case studies on impact of climate on Eastern African;

- Forests,
- Wetlands

- Arid and semi-arid areas
- Coastal systems Montane & alpine areas
- Below ground systems
- species and populations

2. Impact of climate change on human health and environmental systems

Human environment worldwide and eastern Africa in particular is defined by three interdependent features: agro-ecosystem (crop and livestock) industrial systems and settlements (rural villages and urban). These systems also depend on climatic elements for their proper functioning and are therefore susceptible changes and vulnerabilities in climate. Climate variability and change modify the risks of fires, pests and pathogen outbreaks thereby negatively affecting food and fibre and forestry industries-Knowledge on the effect of climate change and variability on these systems is critical in planning for all sectors of development.

The aim under this sub-theme is to provide understanding on how climate change affects human ecosystems.

By the end of the sessions dedicated to this sub-theme we hope to have checklists of case studies on impact of climate change on;

- Agricultural landscapes
- Pastoral and dairy systems
- Urban ecosystems
- Industrial areas
- Health (emerging and re-emerging infectious diseases)

3. Adaptation to Climate Change: What are the Best Practices in Eastern Africa?

Human societies depend on ecosystems for the natural, cultural, spiritual, recreational and aesthetic resources they provide. Availability of these ecosystem services and goods are not only susceptible to climate change but also to consequences such as droughts and floods. These changes often present both survival challenges as well as opportunities among different communities. In short and long term the survival of these communities become a product of level and extent to which they exploit new opportunities presented by the changes and cope with associated challenges.

The aim under this sub-theme is to provide lessons on effective and sustainable coping practices with effects of climate change among in different parts of eastern Africa

The outcome of the discussions on the sub-theme would be a set of (upscaleable) best practices for various communities in Eastern Africa.

4. Mitigation of Effects of Climate Change

Key effects of climate change include rise in sea level and cases of emerging and re-emerging infection, land loss, changes in maritime storms, droughts and flooding. The impact of these effects is often felt in large geographical and societal scales. As countries and governments there is need to assess the appropriateness of existing policies that support mitigation of the effects of climate change especially among the vulnerable groups of our societies.

The aim of this discussion is to distill policies that contribute to mitigation of effects of climate change and identify gaps. The output in this discussion is cross-sectoral policy assessment in the light of climate change in Eastern Africa.

Input will be policy review papers from different sectors of the Eastern African economy and development.

5. Communication of Effects of Climate Change

Despite the magnitude of effects and subsequent impact of climate change in our economy, health and general socio-cultural circles majority of people in Eastern Africa do not fully understand its causes and effects on their life. This needlessly puts to question the rationale of dedicating resources to study climate change, amidst hunger striven, poor communities.

While a lot of information on causes and impact of climate change has been gathered from research, the level of awareness among the people it affects most is conversely low. Climate change effects on plants, animals, and diseases interact with other human-caused stressors, including habitat fragmentation, agriculture and urbanization, invasive species, pollution, and so on. It is therefore important that people are made aware of:

- Causes of climate change
- Impacts on all spheres of development
- Human-mediated exacerbating factors
- Best coping practices

Under this sub-theme we hope to have papers that will show-ease best strategies and user-friendly information packaging methods for effective communication of impacts of climate change and associated coping strategies.

The aim here will be to identify best communication strategies of effectively educating the different layers of the public about climate change. Output from this discussion will be effective Climate change communication strategy for East African communities

ABSTRACT GUIDELINES

Presentations: A paper on the *theme or sub-theme*.

An Abstract (200 words) should include the title of presentation, name of presenters, study problem, objectives, methods, results and conclusion. They should be typed in times new roman font 12 with double spacing. Abstract should reach the Loc by 15th March 2010. A programme will then be developed and the author informed the date and time of presentation. Only documents in MS Word, sent by email will be accepted. All presentations should be in powerpoint format.

Publicity: Please help us to advertise this important conference as widely as possible, by publicizing details now and later in any Newsletter or similar publication that you produce and by displaying an A4-size poster that will be sent by e-mail later to members, or on request to others.

Deadlines, for receipt at ESEA Secretariat

March 15th 2010 Abstracts

April 3rd 2010 Full papers, after communication from the secretariat (e-mail)

Conference dates:

May 19 Arrival and registration
May 20 Key note address and plenary sessions
May 21 Plenary session and AGM in the afternoon
May 22 Departure

Plenary Sessions, General discussions and student competitions

Plenary sessions will be held on each day of the conference, general discussions on various topics will be encouraged during conference. The student competition will be held on the final day, with students presenting their papers and awards given to the best papers presented.

Participants are therefore advised to make copies of their papers, abstracts and notes available to the conference secretariat in advance so that the workshop participants can look at them early and spend maximum time on discussions during the workshops.

MEMBERSHIP AND REGISTRATION FEES

ESEA Membership Fees

- Ordinary US \$ 15 or its equivalent
- Student US \$ 10 or its equivalent (proof will be requested)
- Institutional US \$ 150 or its equivalent.

All conference participants will be expected to pay full conference fees.

Conference Registration Fees

- ESEA Members KShs.1,000 (including Msc & PhD students)
- Non-members KShs.2, 000
- Students KShs.500 (Undergraduate students only)
- Overseas Participants US\$100

Kindly address any inquiry on the conference at conference@ecsea.org

For registration or more information, please contact;

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Interested participants are advised to start sourcing for support/funds as early as possible to attend the conference as ESEA will not support all participants.