



CONCEPT NOTE AND CALL FOR PAPERS FOR THE 2012 ATPS ANNUAL INTERNATIONAL CONFERENCE AND WORKSHOPS

THEME: EMERGING PARADIGMS, TECHNOLOGIES AND INNOVATIONS
FOR SUSTAINABLE DEVELOPMENT: GLOBAL IMPERATIVES AND
AFRICAN REALITIES

HOSTED BY: AFRICAN TECHNOLOGY POLICY STUDIES NETWORK (ATPS)
AND PARTNERS

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1.0 PREAMBLE

The quadruple challenges of imploding economies, deepening and widening poverty, climate change, and disappearing environmental assets (natural resources and biodiversity) around the world necessitate a careful rethinking of knowledge platforms and development pathways at global, continental and national scales. With the recent global financial crisis and deepening social and environmental crisis in the past decade, science experts and policymakers alike are united in the search for alternative development paradigms. Major global policy support institutions such as the World Bank (WB), the United Nations (UN), Organization for Economic Cooperation and Development (OECD) amongst others, now sing the same song: *“there is need for new paradigms and pathways for economic growth that is inclusive of social and environmental sustainability”*. A recent report launched by the World Bank (2012) aptly concludes that, *“inclusive green growth is necessary, efficient and affordable,..., the search for solutions needs to shift from the search for more financial resources, to “getting smart”*. In the same vein, the recent Global Green Growth Summit held in South Korea, re-echoed the collective voice of global leaders that *“technological innovations will be central to the creation of a new and more sustainable development paradigm”*. Many global assessments and reports now converge in the conclusion that having the right kind of science, technologies and innovations is at the heart of sustainable development (UNESCO, 2010, UNEP 2011, UNDP 2012, UNCTAD 2012, World Bank 2012). Be it the first and second carbon intensive industrial revolutions which are now foundering or the third industrial revolution which is now evolving under different nomenclatures (Green Economy, Green Growth, Inclusive Growth, Climate Resilient Economy, Low Carbon Economy, etc.), STI has remained the constant driver of productivity and efficiency gains in economic development history.

In June 2012, World Leaders, the Academia, the Private Sector Actors and the Civil Society convened in Rio De Janeiro, Brazil under the auspices of the United Nations Conference on *Sustainable Development*. Reconnaissance surveys in Africa suggested that 20 years after the first Rio conference, stakeholders’ expected more proactive and practical actions in addressing poverty, hunger, energy access, energy security, efficient and sustainable resource use and ecosystem management, improved agricultural value chain management, etc. The general feeling amongst policymakers and policy analysts consulted was that the global governance architectures be it in the socio-political, economic or environmental realms still leaves Africa disadvantaged in many ways. This is largely due to lack of political will to implement negotiated agreements and international commitments; global mechanisms and institutions that favour binomial relationships between the global north and the global south with knowledge, technologies and innovations predominantly flowing from the former to the latter; and general inequities in the distribution of skills and capacities for innovation and wealth creation. The Ministers of African States have therefore aptly noted that the critical foundation for sustainable development must include more inclusive global governance; strong and responsive pro-poor institutions for wealth creation, social equity and equality; poverty eradication and environmental sustainability, as well as sustained progress in the achievement of internationally agreed commitments including the Millennium Development Goals (MDGs). They called on Rio+20 to reinvigorate political will and international commitment to implementing the goals and ideals of sustainable development and urge developed countries to proactively fulfill previous

commitments and pledges to help Africa's efforts to achieve sustainable development.

The optimism that the Rio+20 conference outcomes was expected to deliver greater global commitment to sustainable development and encourage countries of the global north to step up development assistance to African countries was well placed. However, a pragmatic assessment of global development trends and resource potentials suggest Africa is on the move (UNDP 2012), and the technical resource and productivity potentials for green growth is substantial. Huge opportunities therefore exist for home grown development on the continent, but the STI capacities of the African countries to effectively participate in harnessing these comparative advantages remain dismal (Urama et al., 2010). Though Africa's scientific capacities and Gross Domestic Products (GDP) growth have improved during the past decade, technological and innovation capacities remain low and the requisite institutional and governance infrastructures are only just emerging (Urama et al., 2010; UNESCO 2010, UNDP 2012). Whereas there are pockets of success in application of STI including the mobile telephony and telecommunications, among other factors, which contributed to the sustained economic growth in the continent during the past decade, the continent generally lags behind in skills and competencies required to fully reap the benefits afforded by STI for its development. This can be attributed to many factors, but key amongst these are the lack of skills and capacities in the area of STI to guide and foster an African development agenda, inadequate implementation of STI policies and programmes, and limited political commitment.

It is expected that as the world "gets smarter", transitions away from hydro-carbonated industries and natural resource intensive economies will be imperative. Continued reliance on cheap exports of primary resources will not only be environmentally unsustainable and economically inefficient, but also socially unacceptable. Building STI capacities, knowledge systems and structures, knowledge circulation and networks, and effective valorization of STI knowledge will therefore be the bedrock for sustainability of nations in the coming decades¹

Africa cannot afford to remain reclusive of the emerging global realities and social, economic and environmental challenges of climate change, biodiversity loss, deepening water stress, energy price hikes, etc.; neither should she remain a global consumer of knowledge, technologies and innovations in the new global economy, the architecture of which is emerging today. The first Africa Forum on STI hosted by the Republic of Kenya from 1-3 April 2012 and co-organized by African Development Bank (AfDB), African Union Commission (AUC), United Nations Economic Commission for Africa (UNECA), United Nations Educational, Scientific, and Cultural Organization (UNESCO) and Association for the Development of Education in Africa (ADEA), called for African countries to, among other things, design STI policies and programs to implement strategies to support inclusive growth, employment opportunities, and sustainable development in Africa.

¹ The important role for science, technology and innovation in fostering socio-economic development has been recognized by African Heads of States in their various declarations including the Lagos Plan of Action, the African Union/New Partnership for Africa's Development (AU/NEPAD) Consolidated Plan of Action and policies of the Regional Economic Communities (RECs) and Member States. However, like most policies, implementation has been constrained by a number of factors.

The international conference and workshops convened by the African Technology Policy Studies (ATPS) and its partners will reflect on a post-Rio+20 futures for Africa. To make good global commitments to sustainable development in Africa, we believe that African countries would need strategic transformative reforms in its **knowledge structures** (from mono-disciplinary certificate education to trans-disciplinary systems studies, entrepreneurship and innovation capacity development); **institutions and governance structures** (from neo-colonial knowledge dependence to governance structures that are fully embedded in Africa's socio-political, economic and cultural realities); **Agricultural systems research and policy** (from focus on incremental productivity enhancing measures to value chain approaches and technologies that may enhance quantum leaps in value addition including on-farm factor productivity improvements, enhanced shelf life and market value of agricultural products); **knowledge circulation and networks** (to enhance intra-African knowledge flows and networks), and **development pathways** to enhance transitions towards poverty reduction and wealth creation for inclusive green growth and development on the continent.

1.1. CONFERENCE SUB-THEMES AND CALL FOR PAPERS

Five inter-related priority subthemes have been identified through a participatory stakeholder consultation exercise which commenced at the ATPS Annual General Meeting in November 2011 (for details see http://www.atpsnet.org/media_centre/news/article.php?article=109), and culminated in an expert consultative workshop held in Naivasha, Kenya in May 2012 (for details see http://www.atpsnet.org/media_centre/news/article.php?article=110). Through the consultative process, leading experts from Africa, Europe, North America, the Caribbean and small Island states, Asia, and Australasia suggested the focus on the following sub-themes:

i) Transitions to Low Carbon Development Pathways: Implications for Sustainable Development in Africa

Papers under this subtheme should cover broad range of issues on the role of STI in transitions to more inclusive green growth, green economies and low carbon development pathways in Africa. A number of alternative paradigms are emerging including the Green Economy, Green Growth, Low Carbon Development, Inclusive Growth, etc.

The sub-theme explores country experiences, policy questions and options for a sustainable structural transformation in African economies that will protect Africa's natural capital while growing her economies. These will include but not limited to, renewable energy options for energy access and energy security, greening industries, sustainable mining, and green growth; institutional arrangements to support such transitions including global financing mechanisms, climate/green change technology transfer mechanisms, trade rules, regionalisation and internationalisation of STI, extension services, etc. It seeks information to establish baselines, understand current and future barriers, potentials/opportunities; and provide policy actions and measures required to achieve more inclusive growth and sustainable development in Africa.

ii) Governance of Science, Technologies and Innovation including Genetics for Farming, Biotechnologies, Nanotechnologies and Indigenous Knowledge Systems

The subtheme explores broad issues on the governance of STI for food security and sustainable development with a special focus on biotechnologies, genetics for farming, nano-technologies and indigenous knowledge system for improved productivity and value addition in agriculture, health delivery, water management, etc. These technologies and innovations present opportunities for addressing many of Africa's development challenges including food and energy insecurity, poor access to quality drinking water and sanitation, and increasing disease burden. Likewise, papers under this subtheme should explore based on empirical evidences the many controversies that trail the development of some of these technologies in Africa and across the globe.

The sub-theme aims to provide critical assessments of country case studies to establish baseline knowledge of the current potentials, barriers and opportunities in the development, deployment and diffusion of these technologies in Africa as well as explore policy options for optimising the potentials and minimising the risks associated with these technologies.

iii) Institutional Structures and Social Innovations for Sustainable Development in Africa:

The subtheme explores the institutional and social structures needed to deliver on sustainable structural transformations toward inclusive growth in Africa. This includes the new forms of public policies shaped by new models of innovation that enhances resource efficiency, resource productivity, greening economies, greening industries, and decoupling economic growth from social and environmental impacts, among others. The subtheme also explores the implications of emerging global changes, global recession, and the shift in global partnerships, etc, for African development and the role of STI. Other areas considered under this subtheme include; privatisation and commercialization of enterprises, innovation incubation, entrepreneurship and public-private partnerships (PPP) in the new global economy.

iv) Youth and Gender Empowerment for Sustainable Development in Africa

The sub-theme will explore regional and global experiences on youth development and engagement in science, technology and innovations, which will serve as a knowledge asset for both practitioners and policy makers to foster activities on youth development, empowerment and leadership in Africa. The potentials and challenges of youth and gender engagement/empowerment for African sustainable development through STI are also covered under this subtheme.

v) Mainstreaming Transdisciplinarity in STI in Higher Education

The subtheme hopes to explore the concept of transdisciplinarity in higher education with respect to its application to science, technology and innovation for African sustainable development. This includes new pedagogies, models, curricula, incentive structures, policies and reforms on teaching, learning, research and community service required for a sustainable higher education and development in Africa.

2.0 CONFERENCE OBJECTIVES

The overall purpose of the conference is to critically examine the current conditions, barriers and opportunities in the above thematic areas and provide policy options for transitions to more inclusive sustainable development in Africa.

3.0 EXPECTED OUTPUTS

- i) Published conference proceedings;
- ii) A book volume with selected conference papers showcasing success stories, barriers and opportunities for transitions to low carbon development pathways in Africa; and
- iii) A communiqué summarising key conference recommendations for African policymakers and development partners.

4.0 EXPECTED OUTCOMES

- i) African policymakers, science experts, private sector actors and civil society appraised of the pros and cons of alternative development pathways and policy choices including actions and inactions; and
- ii) Strengthened networks amongst STI actors in Africa.

5.0 CONFERENCE METHODOLOGY

The conference will use various methods to ensure effective participation by all stakeholders:

Day 1: Facilitated Plenary Sessions: This will involve commissioned keynote papers from selected renowned researchers, policymakers and practitioners in the different thematic areas. The keynote papers will draw on existing evidences to frame the dialogues around each thematic area. Two keynote papers will be commissioned for each theme, one from a developed country perspective and another from the African perspective to ensure a balanced discourse of the subjects. These sessions will be coordinated by professional facilitators to ensure proper and effective stakeholder engagement.

Days 2: Parallel Sessions: The two-day parallel sessions will deliberate on each subtheme to have a focused exhaustive dialogue on the subject areas. This will include parallel presentations of shortlisted papers expected to be received in response to the call for papers focusing on regional and country case studies, projects, experiences, etc. The sessions will explore the reasons for success and failure in the different contexts and draw conclusions and lessons for sustainability.

Day 3: Plenary Closing Session: This session will be dedicated to feedback generated from the parallel sessions to collectively identify strategic priority response polices, measures and options for Africa in the new global economy. The recommendations will be documented in a Communiqué that will be widely disseminated to the relevant stakeholders within the government, private sector, academia, and civil society actors in Africa and in the development partner countries in Europe, North & South America, Asia and Australasia.

5.1 CONFERENCE POSTERS, EXHIBITIONS AND SIDE EVENTS

An exhibition area will be organized during the conference at the same venue. To show case green technologies and innovations, or institutions working in the subject area, exhibitors are requested to apply in advance to atpsconference2012@atpsnet.org. Spaces for the exhibition will be very limited and will be allocated on first-come first-served. Target Exhibitors will be on innovative science, technology and innovation products, prototypes, etc. produced as a result of research, good policies and practical applications of innovations. Institutions and individuals working in the subject areas are encouraged to apply poster sessions accordingly.

6.0 CONFERENCE VENUE AND DATE:

Dates: 18 – 24 November 2012

Venue: The venue will be Addis Ababa, Ethiopia. Specific venue will be communicated to stakeholders and partners at a later date.

7.0 CONFERENCE DELEGATES:

Delegates from all STI policy stakeholders (policymakers, researchers, private sector actors, and civil society) in the developing, emerging and developed countries with interest in STI capacity strengthening for sustainable development in Africa are welcome to attend the conference and workshops. Key policy making and policy implementation arms of Africa including the African Union Commission (AUC), Regional Economic Commissions (RECs); the United Nations Organizations/Agencies (UN); African national governments; researchers; private sector actors; civil society actors; and key development partners, philanthropies and Donor Agencies from developed, emerging and developing countries are particularly encouraged to attend.

8.0 CONFERENCE REGISTRATION PROCEDURE:

All conference participants are required to register and at least one author per paper must attend. Online registration is open until 30 October 2012 at:

<http://www.atpsnet.org/about/conferences/index.php>.

Conference registration conditions vary depending on the country of origin and the package selected.

The registration rates are as follows:

ATPS Registered members	\$100
Delegates from Africa and other developing countries	\$150
Delegates from developed countries	\$200
Post graduate students above 35 year old	\$50
Students/Youth Entrepreneurs between 18 – 35 years	Free
Institutional Exhibition fee	\$1000
Innovation/Technology Exhibitions	\$1000

ATPS and its partners plan to support the participation of pre-selected delegates including keynote and invited speakers and key policy stakeholders, ATPS Board members, Regional Council members; International Responsible STI Council

members; National Chapter Coordinators/Focal points; Secretariat Staff; Program Regional and National Steering Committees members; AWFST Executives; AYFST Executives; Program Coordinators; Selected policy makers from the 29 countries where ATPS has national chapters including Diaspora Chapters from the UK and USA. Travel grant letters will be issued to qualifying delegates in advance.

All other delegates will be fully responsible for their participation including registration, travel, accommodation and subsistence costs during the conference period, etc. The ATPS and its partners are under no obligations to bear any responsibilities for unsupported delegates.

9.0 SUBMISSION GUIDELINES:

We particularly invite contributions to the conference that address the above theme and sub-themes from an interdisciplinary and trans-disciplinary approach.

i) Abstracts:

Abstracts of 350-500 words are invited from prospective conference participants. The abstracts should contain the title of the paper, name(s) of the author(s), contact information, 5 keywords and biographical notes about the author(s). Authors are also invited to indicate the conference sub-theme pertaining to their papers. All abstracts will be anonymously evaluated by the Conference Technical Committee on the basis of the following criteria: originality and creativity; clarity of content; contribution to the knowledge base/ evidence base; linkages with research, policy and practice; relevance and timeliness in terms of findings and conclusion. Abstracts will also be selected based on their relevance to one or more of the conference theme/subthemes. A book of selected abstracts will be published and made available during the conference. The deadline for the submission of abstracts is **7 September 2012**. All submissions should be made to: atpsconference2012@atpsnet.org

ii) Full Paper submission:

Candidates whose abstracts are selected are expected to submit their full papers by **15 October 2012**. The papers shall be evidence-based and can be theoretical, empirical or policy oriented, and can approach the issues from a range of disciplinary, but preferably trans-disciplinary perspectives. Papers submitted will be peer-reviewed for originality, technical and research contents, depth correctness, relevance to the conference themes, contribution to knowledge, readability, etc. The full paper should be between 4000-6000 words, A4 word format, one column, font size: 12pt, Times New Roman, 1.5 spaces, margin width (2cm). Papers shall include the following: Title of the paper, Full name(s) of the author(s), contact details, Abstract (250words), 5 keywords. All submissions should be made to: atpsconference2012@atpsnet.org

10.0 CONFERENCE LANGUAGE:

The official languages of the conference are English and French. However, the submission of abstract and full papers must be in English. Simultaneous interpretation in the official languages during the conference will be ensured.

11.0 CONFERENCE PROCEEDINGS:

Selected papers will be considered for publication as a book volume. This book will be extensively reviewed to meet all the scientific requirements and add value towards Africa's sustainable *development* through technology and innovations.

12.0 CONFERENCE HOMEPAGE:

The ATPS website is <http://www.atpsnet.org/> while the conference website is <http://www.atpsnet.org/conferences/index.php>.

13.0 SUMMARY OF CONFERENCE SCHEDULE:

Dates	Activities
8 August 2012	Announcement of the call for papers
7 September 2012	Deadline for submission of abstract
17 September 2012	Notification of Abstract Acceptance
15 October 2012	Deadline for the submission of full papers to be considered for publication
30 October 2012	Deadline for the submission of PowerPoint Presentation

14.0 VISITS:

Visits to cultural and historic sites in Addis Ababa will be arranged. Participant will be responsible for all charges.

15.0 CONTACTS:

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