

The SIANI Bioeconomy Expert Group

Moving Africa Towards a Knowledge Based Bio-economy; How can Sweden assist?

1. Background

The rapid globalization, new technologies and trade regimes and the growing global demand, for food, feed and renewable materials, and also agricultural land is changing the conditions for the agriculture and utilisation of genetic resources worldwide. At the same time, the revolutionary achievements in the field of biosciences are contributing to a transition whereby bio-based alternatives for energy and materials are becoming more economic and more mainstream. This has led to the concept of a “bio-economy”. This has led to the development of the term *knowledge based bio-economies* which increasingly is seen as a tool for creating sustainable economic growth based on renewable resources, moving away from the fossil fuel economy and responding to pressing local and global challenges, including climate change. A central feature of a knowledge based bio-economy is that scientific research and knowledge are applied to bio-resources, agricultural and agroprocessing systems not only to produce food and feed but also to an increasingly wide range of agro-industrial and value added products with potential applications in many sectors, including pharmaceutical, chemical industry, and energy among others.

For countries in the South, *including countries in Sub-Saharan Africa (SSA)* the development of a *knowledge based bio-economy provides major opportunities but also serious challenges*. A central question is how the millions of resource poor small holder farmers, so vital for food production and economic growth, can benefit from the prospects of a new bioeconomy? Another key question is how countries in SSA can develop Programmes, institutional capabilities and innovation structures able to adapt and use technologies and know how based on their own priorities and needs.

The public sector has in many countries in the South, not least in Sub-Saharan Africa (SSA), a key role to play in adapting technologies and knowledge enabling resource poor farmers to benefit from the development. Additionally, the public sector’s role is to serve an emerging local private sector with innovations, knowledge and support, enabling a wide use of modern technology, including biosciences.

The development of a sustainable bioeconomy in Sub-Saharan Africa is dependent on capacity building, partnerships, clear priorities and funding commitments, knowledge driven policy making, and interdisciplinary analysis.

Even though much of the incentive to deal with the challenges and opportunities of a new bioeconomy has to come from the African countries themselves, there is a clear need for assistance from more experienced countries, not least Sweden. This assistance is particularly important in developing African skills, tools and networks for knowledge driven policy making and interdisciplinary analysis. Sweden has many key institutions and a long history of interdisciplinary analysis and knowledge driven governance. Sweden also has many institutions and actors that could provide support and engage in collaboration with countries in Sub-Saharan Africa in the development of a knowledge based bio-economy.

2. Objectives for the SIANI Expert Group

The objectives for the SIANI Expert Group would be:

- To identify in which way countries in Sub-Saharan Africa (SSA) could be assisted /benefit from /the development of a knowledge based bio-economy.
- To identify how Sweden best could support countries in Sub-Saharan Africa (SSA) in developing a knowledge based bio-economy.
- To identify key Swedish actors and those parts of the Swedish Resource Base that could be interested and relevant in engaging with relevant actors in Sub-Saharan Africa for the development of a knowledge based bio-economy.
- To develop a report on the prospects, issues and challenges in the process of developing a knowledge based African bio-economy and how Sweden can assist in this process,

3. Type of Issues to be discussed within the SIANI Expert Group

Tentative set of questions to be addressed in the SIANI Expert Group capacity (to be further developed) would be:

- How the development of a bioeconomy could assist African countries to address key development and environmental challenges.
- Adaptation of the bioscience revolution, what is most relevant to Africa?
- What should be the focus for international support enabling countries in Africa to move towards a knowledge based bio-economy. What to prioritize?
- The benefits, the risks and the challenges around agroindustrial crops, including food vs fuel issues (techno economical prospects, socio-economic issues, environmental issues).
- Which type of Swedish actors, institutions could be engaged in assisting countries in Sub-Saharan Africa in the development of a modern knowledge based bio-economy?
- What type of Swedish support and modalities for support would be most helpful assisting countries in Sub-Saharan Africa to develop a modern knowledge based bio-economy?
- How to develop a fora and possibly a capacity building programme enabling Swedish actors to be part of an Africa driven” analysis of the issues, the prospect and the challenges in developing an African bioeconomy?

The list of issues will be further developed by the Expert group.

4. The Activities

The Activities will be:

1. Virtual discussions held through a mail-list.
2. Two meetings/workshops to be held
3. An international Seminar in Stockholm.
4. Development of a report and a policy brief.

5 The Products

1. A network of Swedish and African key actors (based on SIANI members and the Swedish Resource Base and key African resource persons) interested in Moving Africa towards a knowledge based bio-economy
2. One Seminar and seminar proceedings
3. A SIANI bioeconomy expert group report on the prospects, issues and challenges in the development of a modern knowledge based African bio-economy and how Sweden best could

support countries in Sub-Saharan Africa (SSA) in developing such Knowledge Based Bio-economy

6. The Actors

The actors will be primarily based on SIANI members, the Swedish Resource Base key and African actors. Efforts will be made to involve the Swedish agroindustrial resource base interested in engaging in Africa and in modernizing and developing the African agro-economy.

7. The Process and workplan

- The group will be co-ordinated by Ivar Virgin, SEI .
- Potential members of the discussion group will be contacted and engaged through email
- An email list will be created and
- A discussion document will be developed (August 2014)
- Participants to give input to document (September-December 2015)
- A first planning meeting will be held at SEI, Stockholm in September 2014
- An International one day Seminar will be held in Stockholm in with a tentative title . Moving Africa Towards a Knowledge Based Bio-economy; How can Sweden assist?, Dates for this workshop is not decided but the workshop will be held in Stockholm in, tentatively November, December 2014.
- Final development of a background report on how Sweden can assist countries in Sub-Saharan Africa to develop a modern knowledge based bio-economy, February 2015

8. Practicalities

The SIANI expert group has a modest budget, and funds can only be used for travel and accommodation. Thus, work within the expert group will not be remunerated.

Funds for travel and accommodation are available, but reimbursement has to be approved by Ivar Virgin, SEI.

9. Contact details

Should you want to be part of the group, please mail Ivar Virgin, SEI (ivar.virgin@sei.se) back to me that you want to be a part of this group and with the upcoming email list. Can you think of anyone else who you think would be interested in participating in the expert group, feel free to email their address to Ivar.