



Launch of the Montpellier Report

Sustainable Intensification: A new paradigm for African Agriculture

European Commission, Borshette building, Rue Froissart 36, 1040 Brussels,
28th May 2013

On 28 May 2013, CTA organized the Launch of the Montpellier report on the topic of sustainable intensification. The event, jointly hosted with the European Commission engaged more than 70 experts in a discussion on the future of African Agriculture.

Michael Hailu, Director of CTA, outlined the challenge of sustainable intensification, which should allow to increase food security and small-holders' incomes whilst sustainably managing natural resources and avoiding degradation of local ecosystems. African agriculture faces the challenge of raising productivity – which is very low compared to Asia and Latin America. Until now this agriculture has mainly relied on extensification and increased fertilizer use to improve production. However, the approach needs to be strengthened to meet challenges, particularly in the Sub-Saharan regions. In addition, climate change is expected to decrease crop production by 10 to 20% . About 20 to 25% of crop is lost



post harvest. African farmers can do more by gaining better access to inputs, land, markets and knowledge. Currently, African policy-makers are expressing large interest in agriculture, which was seen as the first priority for bringing about economic change by the African Union. Technology and knowledge combined bring new opportunities to transmit innovation to smallholders. Farmers are getting better organized, with an emphasis on rural women and youth. Finally public-private partnership provide an opportunity for connecting farmers to markets. The report gives many good examples and success stories for sustainable intensification but needs to elaborate on who to scale up such

successes. Sustainability is very important although policy makers and practitioners do not consider it often enough, tending to concentrate solely on access and productivity issues.

Jean-Pierre Halkin, chair of the panel, reminded the audience that the Montpellier



Panel is a joint Europe - Africa initiative funded by the Gates Foundation and launched by Prof. Conway. He then affirmed that sustainable intensification is at the heart of the European Commission policies. As outlined in the Agenda for change, the two most prominent issues for DEVCO are energy and sustainable agricultural and food and nutrition security. In addition resilience and nutrition represent important sector policies. Food security will be a priority under the 11th EDF.

David Radcliffe started by outlining the challenges faced when aiming at sustainable intensification in Africa. On the demand side, more and more diverse food will be necessary to meet the predicted population increase and more diverse food preferences. On the supply side the resource base is restricted and climate change is an overarching issue. After defining sustainable intensification, Radcliffe explained that the report is structured along the dimensions of ecological, genetic and socio-economic intensification. It build on the approach previously set out by the



recent “Save and Grow” FAO report ¹. The agricultural system is an adaptation of natural ecosystem and as such ecological knowledge can be used to improve its performance. Examples include intercropping, agroforestry and Integrated Pest Management (IPM). Genetic intensification takes place at the seed level and aims at improving crop yield and nutritional value but also its resilience to pest and disease. Crop breeding for improved characteristic has been long practiced, particularly when supportive regulatory frameworks are in place. Genetic intensification using modern technology can speed up this process. For instance, marker-assisted selection was used to select the orange flesh potato. These approaches need to be put together in logical sequence. Applied research using traditional and scientific knowledge is necessary to scale-up success stories.

Peter Hazell, Montpellier Panel member and Visiting Professor, Imperial College London reminded the audience how African agricultural productivity lagged behind. Whilst on one side African farmers use few modern inputs, this has not translated into greater environmental sustainability. This lack of success is due to the use of a one-dimensional approach to agriculture (either increase fertilizers use, or improved seeds or conservation agriculture). In applying such approaches, few farmers succeeded in scaling up their production.

One of the reasons why silver bullet approaches do not work is that strong complementarities exist among them. For instance, the green revolution proved successful in increasing production because it applied together different aspects such as a favorable policy environment,



Peter Hazell

the use of improved seeds and fertilizers. On the other hand, its main limitation has been the lack of accounting for sustainability issues.

Hazell explained that in order to benefit from the use of fertilizers and improved seeds on a sustained basis, a soil rich in organic matter is necessary. This can be obtained by changing land management practices, in a way that requires considerable knowledge and labour. Weed problems on the other side can be solved using good ecological practices but those do not allow profitable agriculture on their own.

One of the biggest limits for the adoption of good modern inputs and ecological practices is the lack of an enabling economic environment, and in particular the lack of market opportunities and access. It is therefore necessary to integrate for each agricultural system, the right socio-economic environment, ecological practices and modern seeds varieties.

Hazell also added that three key issues are essential: (i) In the process of developing and extending technologies we need to bring together scientists with traditional knowledge brokers.

(ii) Different agents of change need to be mobilized, including NGOs, international organizations and donors. In this context, the Value Chain Analysis of a given commodity is a practical tool. By following a commodity from production to commercialization, it becomes possible to identify weak points to be worked on with the appropriate actors.

(iii) It is necessary to differentiate among farmers. The diversity is wider than in the past and effective interventions would need to be differentiated to precisely target different farmers, e.g. among smallholders, part-time farmers, commercially-oriented farmers.

Tom Arnold, Montpellier Panel member, former CEO of Concern Worldwide, and Chair of the Convention of the Irish Constitution,

[\[Interview\]](#) highlighted that the greatest value of the report is to acknowledge the different dimensions of sustainable intensification. Unless all those dimensions are addressed, sustainable intensification is unlikely to work. The report has clear implications for African governments, in particular the need to create an adequate policy environment favouring sustainable intensification and the necessity of strong commitment over agriculture to overcome challenges facing it.



Regarding socio-economic intensification, Arnold underlined once more the necessity to create an enabling environment, through technology, education, the establishment of farmers’ organizations, mass media etc. National policy makers have the responsibility to favour the development of other actors such as civil society, advisory services and ICTs operators.

¹ <http://www.fao.org/docrep/014/i2215e/i2215e.pdf>

H.E. Frédéric Assomption Korsaga

The Ambassador of Burkina Faso to the EU started by outlining the issues which prevent the increase in productivity of agriculture in Africa. Burkina Faso put in place several policies to achieve sustainable intensification and some policies also exist at regional level. The challenges include bad state of the environment, incapacity for intensification to keep the pace of population growth. In order to meet those challenges, many issues need to be solved, including land management, industrialization, partnerships between agricultural and industrial sectors. Practically speaking, consumption and production patterns are unsustainable and measures such as new seeds, training and access to market need to be addressed. Training is key, as shown by the coffee and cocoa initiative in Ivory Coast which used TV and radio training to achieve sustainable intensification of those crops. The socio-economic aspects of intensification need to be integrated to the more technical ones. At regional level, organizations such as ECOWAS and UEMOA also have parallel policies, such as packages for small farmers and funding for hydro-agricultural infrastructure. At continental level, the ambassador recommended: i) implementing the whole package, not only part of it; ii) integrating those policies within general framework, iii) training – and this should have been examined in the report - ; iv) most importantly political will, as demonstrated by countries such as Malawi which are achieving very high production levels.



In the first round of **Q&As**, comments were made over the importance of integrating risk-management tools into agriculture and the importance of private-public partnerships. Furthermore, the issue of communication and dissemination of information to farmers and their organizations – and the role CTA plays in this sector – was acknowledged by one participant. One comment related to the important but neglected role that sustainable energy supply plays in achieving rural and agricultural development, especially for postharvest conservation. Regarding the genetic intensification chapter in the report, a participant underlined that the importance of traditional

knowledge and local crop diversity should not be forgotten when speaking about improved seeds, particularly as those tend not to be easily accessible for small farmers. Another point was raised concerning the notion of sustainability used, which should be multi-dimensional and always include economic, social and environmental aspects. Concerning genetic improvement, **Frédéric Assomption Korsaga** explained that in Burkina Faso several farmers encounter difficulties in accessing seeds. For this reason the government selected some farmers to reproduce seeds. He also acknowledged the importance of having adequate storing facilities, as their availability heavily influences farmers' production decisions. **Tom Arnold** declared himself optimistic about future agricultural developments in Africa. Despite slow growth in African productivity, Africa is currently undergoing a process of general economic growth that will favour structural change and development away from the agricultural sector. On the other side there is a growing consensus on the importance of agriculture as demonstrated by continental and regional policies. The last few years also saw the development of an African Agenda for Science by FARA and generally strengthened agricultural research. The importance of nutrition has been recognized. **Michael Hailu**, described the role of farmers' organizations in transferring information to farmers. He stressed that top-down approaches in extension services have proved to be unsuccessful. Tailor-made services and the repackaging of information especially for different types of farmers are thus needed. In this context, farmers organization can make an important contribution, keeping in mind that not all organizations are equally well organised.



The second **Q&As** section started with a question on the potential for microfinance to be a tool for the financing of sustainable intensification. A participant noted the importance of promoting initiatives which are economically sustainable in the long run. Another participant suggested adding a chapter on the implementation of the approach in terms of recommendations to different levels concerned, e.g. government, producers' organizations, and the various actors in the value chain. Finally an ICRAF representative

underlined the large increases in productivity that are possible in from agroforestry in humid areas, as well as in the Sahel that was mentioned in the presentations. In addition the participant underlined that genetic intensification only usually concerns a limited number of crops but more than 20 000 species are used as crops worldwide whilst contributing to local biodiversity. In Cameroon, there are farmers who are taught how to breed their own crops. Finally he reiterated the importance of crossing the boundaries of own institutions and specializations.

Peter Hazell concluded by underlining the importance of the value chain analysis approach as means to capture the existing connections and complexity whilst identifying strategic bottlenecks. In order to obtain a strong impact it is important to implement the whole package and make strategic partnerships along the value chain to achieve the needed scale.

Yemi Akimbamijo, Executive Director of the Forum for Agricultural Research in Africa (FARA), concluded by highlighting the current momentum in the fight against food insecurity.



The way forward will include refining the impact map to be presented to a cross-section of policy-makers adding to the political gravitas. Leaders today want to build food security and strengthen resilience against biotic and abiotic challenges. Centrally, policies need to be evidence-based.

The 2013 Montpellier Panel Report provides innovative thinking and examples into the way in which the techniques of Sustainable Intensification are being used by smallholder farmers in Africa to address the continent's food and nutrition crisis. It begins by examining the process and elements of Intensification itself, before considering how we then ensure that the Intensification is Sustainable, and concludes with practical solutions in action today across the African continent, that underline the positive impacts the framework can produce if scaled up more effectively.

To access documentation and view the videos from the event visit CTA Brussels [website](#)

<http://paepard.blogspot.nl/2013/05/lauch-of-montpellier-report.html>

<http://ag4impact.wordpress.com/2013/05/31/eur-ocean-launch-of-the-2013-montpellier-panel-report/>

