Conservation Agriculture (CA) certification schemes, what would it take to establish them in Africa?

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With certification schemes, we have the opportunity of translating the power of consumer requirements into Good Agriculture Practices and systems, and how food can be produced sustainably in the world. Certification is also carried out to create safe and sustainable agriculture by connecting farmers and brand owners in the production and marketing of safe food. Certification and good agricultural practices already exist in many countries, whereby voluntary standards are set for the certification of farmed products. This synopsis shares the lessons from Argentina in the context of what is needed to establish CA certification schemes in Africa.

Momentum, as a theory of physics, is a precise concept. In the physics lab, the empirical application of the theory can be precise and without error. However, application in the field requires careful consideration of innumerable confounding factors that can be held constant in the lab (Steve Sonka, XIV Aapresid Congress 2006).

By broadening the concept developed by Steve Sonka, we can appreciate how complex, challenging and exciting farming can be if we aim to achieve not only a highly productive production process, but also a profitable and sustainable way to carry it out.

Based on these criteria, certification schemes have been developed with the objective of providing tools for professional agricultural organizations to analyse management and efficiency indicators; and to show to the rest of the society the involved production processes and their impact on the environment. In order to capture the value that Conservation Agriculture puts on sustainability, Aapresid, the Argentinean No-Till farmers Association, has developed a certificate called "Agricultura Certificada (AC)". This example is based on the principles and criteria developed from international initiatives that focus on sustainability. Management indicators are based on soil measurements and efficiency of use of production resources (water, fuel and energy). Good Agricultural Practices are included, namely:

No-till seeding and weeding; Soil mulch cover; Crop rotation; Balanced nutrition; Responsible use of agrochemicals; Integrated pest management; and Cattle production information administration.

In addition, business management and social good practices have been incorporated so as to reach the four axes of sustainability namely social, economic, energy and production. AC aims to certify the whole production process, thus, it is not focused only on a determinate product. This scheme is based upon a three year certificate with two follow up audits in the middle periods. Auditing is carried out by authorized certification bodies which after a positive assessment, issue the certificate for a determinate farm, its farmer and its production process. Currently, more than one hundred farmers in Argentina are certified and most of them, who are soybean producers, have the double certification, i.e., AC as well as a certificate from the Round Table on Responsible Soybean (RTRS). These certified producers comprise smallholder and large scale farmers — as long as they are open-minded and

commercially oriented. In this case, both certification standards share some common principles and criteria which make it easier for the farmer to implement the two certification schemes at the same time.

Developing such an Agriculture Certificate scheme for Africa would be very powerful to scale up Conservation Agriculture (CA) and enhance the social point of view of environmental and sustainability issues. It can help farmers not only to understand that good agricultural practices and systems are linked to soil and other environmental functional indicators, but also to clarify that they need to record and take account of what they do every day in managing their commercial farming operations. Thus, certification promotes the evolution of CA systems.

The 'Agricultura Certificada' programme in Aapresid is financed by companies who pay a fee and offer a discount on purchases to certified farms. Famers also pay a low fee to participate in the AC scheme and some extra money comes from fees charged to farmers on training courses.

Even if we know that the changing the agricultural paradigm from conventional agriculture to Conservation Agriculture is something that cannot be done overnight, and that certification schemes can mean a significant transformation, we also know that with the correct monitoring and continuous education, it can be achieved.

Farmer groups in this transformation process can make a big difference in the adoption of certification schemes¹. Why? Because farmers can learn directly from a neighbour, from another farmer. Farmers worldwide prefer to learn from a peer, and that is the basics of the creation of Aapresid, so that farmers are united, sharing both successes and failures, and learning from each other. Of course, scientific knowledge is useful and required, however, it needs to be applied so the farmer can make real use of it. In addition, a set of trained advisors can monitor and help every farmer during the implementation process.

If Africa's desire is to establish a certification market, it is not necessary to start from scratch. Agricultura Certificada's example can be helpful along with other existing protocols and certification schemes, including those belonging to the industrial sector. They can serve as models to be adapted locally in Africa. For a certification scheme creation process to be "democratic" and representative, the whole chain should be included to, at least, check the adapted system protocol and practices. Lead farmers need to be identified and engaged to serve as pioneers and drive the change into a second group and subsequent groups of followers.

Moreover, certification levels could be established so as to facilitate a gradual entrance by farmers into the certification scheme. The RTRS scheme, for example, has requirements that need to be fulfilled in the short, medium or longer term, making it feasible, especially for the smallholder farmer with little or few economic and financial resources, to invest.

However, is there a clear benefit to the farmers from these certification schemes? Probably there are two answers according to the person who is questioned. A non-certified farmer might say that there

¹ In a typical AC initiative, Aapresid determines two or three leading farmers in a small area, they initiate the group, invite some other friends and choose an agronomist as the coordinator of the group. The group meets every month and talk about the news or invite someone to talk or train them about a specific theme.

are no benefits and that he or she would not implement the system without receiving a higher price for the products. On the other hand, a certified farmer might say that the most important benefit is to be inside the scheme and that one will only see the benefits when the goal is reached. So, the truth is that certification schemes work as quality management systems (i.e. ISO). Continuous improvement is a "must do", and the process comprises of managing circular iterations of actions and learning: Plan, Do, Check, Act which can be followed every day and with every ordinary or complex task. Normally, due to constant monitoring and learning, farmers tend to improve their productive processes, be more efficient in resource use, and learn from mistakes. Additionally, in the case of the Argentinean AC scheme, some seed and agricultural input product companies offer a bonus discount on the purchase of seeds and inputs to certified farms as a reward system.

Consumer awareness of the origin and quality of food products are helping to make the certification market grow. In supermarkets, consumer recognition is increasing in some areas but there is still a long way to go to achieve widespread general recognition.

The gold point would be to receive payments for the environmental and health-related services provided to the consumers and society by the certified farms: cleaner air and water ways, lower pollution, lower fuel consumption, increased soil quality (minor erosion levels), improvement of the local flora and fauna (micro and macro). Who should or would pay for such services? It is hoped that in the near future consumers and governments would become more conscious about these societal benefits of local and global value and recognize the role played by farmers in delivering them.

Finally, certification schemes should be recognized as representing production alternatives that better or optimally combine the interests of reaching and sustaining an economically viable farming sector that is also environmentally sustainable, socially acceptable, and energetically efficient. Such certified production alternatives offer societies anywhere the opportunities to hand over improved agricultural soils and environments to future generations.