Quality Assurance Framework for Conservation Agriculture Training and Practicing Institutions for Africa
Introduction

During the First Africa Congress on Conservation Agriculture (1ACCA) that was held in Zambia in 2014, stakeholders resolved and mandated African Conservation TillageNetwork (ACT) to establish a Quality Assurance Framework for Conservation Agriculture (CA) training and practicing institutions in Africa. Quality is defined as the ability or degree to which a product, service, or phenomenon conforms, to an established standard, and which makes it to be relatively superior to others. It is not just a feature of a finished product or services but involves a focus on internal processes and outputs. Quality assurance can be described as the process of verifying or determining whether products or services meet or exceed customer expectations. Quality assurance as applied in education refer to all forms of internal and external quality monitoring, evaluation or review or the systematic review of educational programmes to ensure that acceptable standards of education, scholarship and infrastructure are being maintained. In common usage, the term quality assurance means the maintenance of a desired level of quality in a service or product, especially by means of attention to every stage of the process of delivery or production. CA production is part of a chain of activities that starts from land preparation, seeding and planting, weed management, soil management, conserving soil and water, managing livestock, harvesting, marketing, input supplies and stretches all the way to the consumer. These activities should meet quality standards during implementation.
Scope and Purpose of the Framework

The framework does not replace or attempt to define national quality assurance systems, instead it aims to support and guide initiatives in relation to CA quality assurance at the national agency level. The quality assurance framework for CA will function as a common reference framework that will help African countries assess, develop and improve the quality of their CA education, training, research and practice systems; guide the design and implementation of measures to strengthen quality assurance at the country level; provide the basis for alignment between national education and training systems across the region; and increase transparency of and consistency in CA training and practice policy developments.

The purpose of the CA quality assurance framework is to assist African countries including their accredited training and practicing institutions that are promoting CA best practices (NGOs, Private sector, Companies, Projects, National and local governments, and CA Centres of Excellence) to promote and monitor the improvement of their systems of CA education and training and programme delivery. This tool can be used as a systematic approach to modernising education systems by improving the effectiveness of CA programmes and projects. The framework has to be used on a purely voluntary basis, taking account of its potential added value and in accordance with national legislation and practice. It should be considered neither as a benchmark, nor as a means of reporting on, or drawing comparisons among different national systems in their quality and efficiency. From time to time ACT will provide feedback on the framework compliance to institutions participating in the implementation of the CA quality assurance framework. The framework is intended to facilitate the sharing of information on good CA systems and practices; provide for concrete means to support an evaluation and quality improvement culture at all levels; support and promote lifelong learning; and contribute to evidence based CA policy and practice.
Components of Standards and Indicators for CA Training Institutions

The educational quality standards define the quality characteristics required for each education institution. The standards are intended to improve the quality of the education institution, and it is to be built into the institution’s delivery and learning objectives. Providers for CA training should meet the minimum quality assurance standards for education and training. The training provider should capture how these standards are observed in practice. The quality aspects are also important in helping training providers in monitoring and improvement of quality over time. Each quality standard has sets of indicators useful in monitoring the performance of the standard.

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*Figure 1: Components of Standards and Indicators for CA Training Institutions*

**Vision, mission, and objective statements.** The vision statement is designed to depict the long-term aim of the institution in a succinct way. The mission statements generally articulate a set of long-term, high-level principles for the direction of the institution and the characteristics it will display. CA education, training and research institutions should establish quality assurance unit(s) or committee(s). The purpose of quality management unit is to develop policies and procedures by which the institution can measure its progress in all domains like education, training, research and services to achieve its mission, using the established standards. Experience in education from Ghana, for example, shows that several committees have been established with different functions related to training quality assurance.
CA Curriculum and Teaching-Learning Delivery. The CA education programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes. CA study programmes provide students with both academic knowledge and skills including those that are transferable, which may influence their personal development and may be applied in their future careers.

Inputs. The key inputs for a CA training institution include staff management and development. The key determinant of the quality of a programme or service is the capacity of those who are responsible for teaching/providing it. It is essential that every provider has a systematic approach to the recruitment and further professional development of people engaged in education programme and service delivery. It is important to ensure that the institution has the necessary facilities and environment to which training is being offered. Different types of training may require the need of specific resources such as laboratories, workshops, ICT labs, experimentation field sites etc., which are necessary in order to provide education and training of quality. In addition, students need other services such as libraries, canteen facilities, a recreational area, a study area. Learning environments are diverse. Teachers and other learners are part of a learner’s learning environment. Learning environments have both physical and social structures. Learners interact with the learning environment; the environment responds to the learner, and the learner to the environment.

Outputs. Support of learners and graduates is a key component and it involves those actions, which provides ability to review the CA training courses provided by the training institutions. It is about how the training offered meets self-employment and the labour market requirements. It is about meetings with students, mainly with regard to feedback on students’ perspective with respect to quality assurance mechanisms that are being implemented. It is important that institutions have the means of collecting and analysing information about their own activities. Without this, they will not know what is working well and what needs attention, or the results
of innovatory practices. CA training institutions have a responsibility to provide information to the public about the programmes they are offering, the intended learning outcomes of these, the qualifications they award, the teaching, learning and assessment procedures used, and the learning opportunities available to their students. Published information might also include the views and employment destinations of past students and the profile of the current student population.

**Components of Standards and Indicators for CA Practicing Organisations**

The quality assurance components for best practicing organisations include the ones in the figure 2. CA practicing institutions need to demonstrate tillage practices that do not damage the soil, leading to compacted soils and hard pans. Conventional Tillage – with hand hoes, discs or mouldboard ploughs – damages the soil structure and leaves it exposed to the wind and rain. A healthy soil, for example, has many different living organisms in it: earthworms, ants, beetles, spiders, termites and many tiny organisms that are so small they cannot be seen with the naked eye. It is rich in organic matter. It is rich in nutrients that plants can use as food, primarily nitrogen (N), phosphorus (P) and potassium (K). It is deep enough for plant roots to grow properly. Providing adequate soil organic cover is a cornerstone of CA. There are a number of cover crops that do better under different climatic conditions and altitude. Legume-cereal crop rotations form an important component of smallholder farming systems in Africa.
Best practicing organisations promote weed management in many different ways, for example: using crops and other forms of soil cover, by hand weeding or using equipment to cut or crush the weeds, and using herbicides. When production and yield increases, it means that labour required to harvest and handle the crops also increases. Farmers have therefore to adopt harvesting techniques and methods that will handle the situation but also farmers need to prepare good storage facilities that are big enough to store the higher yields. Proper marketing of agricultural produce is very necessary.
in order to generate returns that can be used for many farmer requirements such as household consumption and buying inputs for the next season. CA practicing organizations should provide for mechanisms that allow farmers to have access to CA inputs. The main inputs that farmers need for CA are information, equipment, seed, fertilisers, herbicides, pesticides and credit. Farmers need to have easy access to seed, fertilizers and other inputs if they are to adopt and scale up CA. Although livestock are important for many farmers since they provide meat, milk, hides, manure, and pull farm implements and carts, they should be properly managed in order to keep them out from grazing on crop residues in fields after the harvest. If the animals eat all the cover crops or stalks from the previous crop, the soil surface will be bare and exposed to heavy rain and to the wind. Cut-and-carry - Grow fodder in the CA field, then cut it and carry it to the animals.

The social economic aspects for wide scale adoption of CA include formation and maintenance of market led producers and farmer organisations. Farmer organisations are important communities of practice in addressing the market constraints. Farmer organizations play an important role in tackling the systemic causes of poverty, because they give farmers—men and women—a legitimate voice in shaping pro-poor rural policies. One of the major constraints to scaling out of sustainable farming practices including CA is lack of availability and access to CA inputs and services including the ones for land preparation, planting, spraying, threshing, shelling and transportation by smallholder farmers hence leading to a decline in production and consequently farm output. Smallholder farmers will be propelled faster towards mainstreaming CA practice, for example, if they have access to such implements and services as the jab-planters, herbicide sprayers, animal drawn no-till direct-seeders, cover crop seed and other inputs through CA service providers. CA Platforms to support coordination and grassroots activities are critical. The mission of CA platform is to provide coordination of stakeholders working within a particular country or location to address the constraints on the adoption of CA in order to achieve the vision of scaling up CA. The platform raises awareness and lobby at all levels to ensure that
CA becomes a leading farming practice. Creating awareness in CA, good agronomic practices, use of improved seed and in keeping farmers up to date on new products, technologies and on-farm practices is a pre-requisite for enhanced adoption of CA.

**Self-Assessment, Objectives and Approaches**

Both education and training institutions and practicing organisations should be engaged in self-assessment as part of quality assurance procedures. Self-Assessment attains several objectives as outlined in figure 3. This process ends in the development of programme improvement plan (PIP) that institutions and organisations will use them for implementation of the action plans. The self-assessment by a training provider of its programmes and services or a practicing organisation is a fundamental part of its quality assurance system. It is an important mechanism to improve institutional education quality and quality of the programme delivery and implementation. It involves quality evaluation by the institution or organisation itself in order to promote, develop and improve quality and to be ready for internal assessment, external assessment and quality accreditation. Self-assessment is a structured and systematic process to explore, reflect and report on the effectiveness of an activity. It aims to capture, interpret and disseminate learning from any actions undertaken. It seeks to identify good CA practice and to use the findings to inform future policy and practices. It seeks to: engage stakeholders, gather credible evidence from a range of sources, draw and justify conclusions, make recommendations for improvement, and ensure the use and sharing of lessons learned.
The self-assessment serves, at least, the following objectives:

1. The self-assessment motivates the institution to develop further
2. The self-assessment creates confidence among students, and among society, by demonstrating a focus on educational quality
3. To build trust about educational products and services within society
4. To provide learners with information about education quality
5. To provide information about processes or activities of the institution
6. The self-assessment outcome is an important document for institutional administrators to be used in development planning

Figure 3. Self-assessment objectives

Two common approaches to conducting self-evaluations are available: the training provider or CA practicing organisation conducts an initial self-evaluation by applying the evaluation checklist separately to each of the programmes being evaluated; and the evaluation is conducted with the involvement of the external evaluator from the start. The self-evaluation activity should produce a constructive report, which will help the training provider or the CA practicing organisation to maintain and improve the quality of its programme and services.
Accreditation of CA Training Institutions and Practicing Organisations

ACT will provide accreditation to the individuals who provide training in their respective fields as being the experts and authorized by, if under regulated professions, to provide such training. Also the trainers who qualify for accreditation are providing training in non-regulated subject materials and are engaged in coaching or grooming course (personal or professional levels). ACT will also provide accreditation services to training providers, companies, who are not engaged in formal education or training. These companies might be a small or large-scale organization but need to have their training processes assessed and accredited. The criteria for accreditation of training and education programme is outlined in figure 4.

Figure 4: Criteria for accreditation of training and education programme
ACT will not offer the accreditation services to any organization who is engaged in formal training or education from primary to post-graduation level. Any school, college, vocational college or university is considered as a formal education provider and ACT will not accredit such entities since they have their respective accreditation organizations at national and international levels. ACT agrees to work with such institutions to provide formal education qualifications that are accepted by the national or international accreditation organisations.

**Sustaining the CA Quality Assurance System**

Sustaining the quality assurance system requires continuous application of QA framework within the organization or system (internal environment), which is conducive to initiating, expanding and sustaining QA. Sustainable QA requires a policy environment that explicitly recognizes the importance of quality for reaching organizational or system goals, and that provides support, guidance, and reinforcement for QA implementation. Leadership is critical to help the organization see where it needs to go (vision). QA cannot be sustained if there are not adequate resources allocated for QA and also resources for capacity building, communication, and other key support functions. Delineation of responsibilities and accountability for oversight, coordination, and implementation of QA in the organization is necessary. Capacity building which ensures that staff have the necessary technical, managerial, and leadership knowledge and skills to carry out their QA responsibilities and that they know when and how to use these skills best is required.

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