Certification of Organic Farming in Sri Lanka

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In order to certify the veracity of any process it is critical to understand and appreciate the goals of that process.

Farming in a sustainable, productive manner has been a hallmark of every human tradition that has endured history. There are many traditional farms existent today that have been productive for hundreds of years. Agrarian societies with long histories, posses the credibility of having sustained themselves successfully under the rigor of survival in a natural world. Having no access to fossil fuel driven technologies, they relied on renewable agriculture based upon energy sources internal to that society or region. Expansion of farming was constrained by the environment and ecosystem of each area. The advent of fossil fuel changed all this. The gasoline to power tractors, the biocides and fertilizer salts produced by fossil oil enabled agricultural productivity to transcend environmental constraints.

The availability of cheap, subsidized energy encouraged increases in productivity. Agriculture began to be seen as effective production oriented breeding programs coupled with seed and input delivery packages. Genotypes with optimum performance characteristics for high external input agriculture became the standard for agricultural development. However, the bioaccumulative nature of these inputs were not considered and resulted in many cases of food and environmental contamination. The first public alarms on the nature of there chemicals, were sounded in the 1960's with the publication of books such

as ‘Silent Spring’ (Carson 1962). People suddenly became conscious of the effect that the ‘new’ agriculture was having on biodiversity and health workers became aware of the tremendous risk to human health posed by these new chemicals. It was very much this concern that saw the emergence of ‘organic agriculture’ as a system for the production of clean, safe, healthy food.

Organic Farming, arose from this need, ‘to produce clean food and sustain a healthy environment’. Organic farming, seeks to re-establish the balance that was maintained between farmers and the land for centuries. In contrast to the observations of decreasing biodiversity and sustainability in monoculture situations, the pattern of increasing ecological stability with increasing diversity in land use is corroborated by studies of traditional land managers, whose management systems are sustainable and conserve a much higher level of biodiversity than conventional responses. High levels of diversity in the agricultural field produce positive effects of biological control, spread the risk in marketing and production, as well as distributing labor needs to fit with a single family unit.

The traditional Sri Lankan agroecosystems provided ideal models. Operating in a sustainable manner for millennia they became co-evolved units, supporting and developing the biodiversity element of the natural landscape, to confer sustainability to the production system. Further, the traditional knowledge of rice production encompassed the whole landscape, its impact felt at the Tank (reservoir), the rice field and its supporting elements. The value and utility of the knowledge base within the Sri Lankan farming community was also well expressed by the farming community, for example Mr. Mudianse Tennekoon of Nikaweratiya. A traditional rice farmer, he was quick to

grasp scientific ideas and could relate them to traditional practices. Although he traveled widely and discoursing modern concepts, he was not a ‘scientist’ and his views were ignored.

In a statement to a national meeting of Sri Lankan farmers, supported by the CGIAR and presented for the Mid Term Meeting of the CGIAR to be held in Brasilia in May 1998. Over 300 delegates issued the following statement:

“We, the farmers of Sri Lanka would like to further thank the CGIAR, for taking an interest in us. We believe that we speak for all of our brothers and sisters the world over when we identify ourselves as a community who are integrally tied to the success of ensuring global food security. In fact it is our community who have contributed to the possibility of food security in every country since mankind evolved from a hunter-gather existence. We have watched for many years, as the progression of experts, scientists and development agents passed through our communities with some or another facet of the modern scientific world. We confess that at the start we were unsophisticated in matters of the outside world and welcomed this input. We followed advice and we planted as we were instructed. The result was a loss of the varieties of seeds that we carried with us through history, often spanning three or more millennia. The result was the complete dependence of high input crops that robbed us of crop independence. In addition we farmers producers of food, respected for our ability to feed populations, were turned into the poisoners of land and living things, including fellow human beings. The result in Sri Lanka is that we suffer from social and cultural dislocation and suffer the highest pesticide related death toll on the planet. Was this the legacy that you the agricultural scientists wanted to bring to us? We think not.

We think that you had good motives and intentions, but left things in the hands of narrowly educated, insensitive people."

The effect of the so-called 'modern agriculture, based on the premise that the main goal is productivity increase has created a plethora of problems that bedevil all of humanity. The most significant has been a loss of sustainability, a loss of biodiversity, a loss of independence, a loss of traditional knowledge and a loss in nutrient breadth. We need a new paradigm in agriculture

Much of the traditional Rice agroecosystem has disappeared to pave way for new varieties and management measures. The quantity of toxins sprayed into the environment began to increase and the component of fossil energy in our agricultural production continues to rise. The grim reality of fossil energy based agricultural production is that the price of energy will continue to rise. In order top respond, agricultural productivity should be planned for transitioning towards optimal production with little or no external inputs. Organic Agriculture, Traditional Agriculture and Ecological Agriculture are all approaches to agriculture that will benefit the farming community as well as the consumer. A well-planned national program can contribute greatly to a move towards agricultural sustainability.

It is in the context of such a history, that we must address the phenomenon of 'Organic Farming' in Sri Lanka:
As a component of a new paradigm of agricultural development. There are four critical and fundamentally important goals

1. Reduce the reliance of external inputs to maintain agricultural productivity

2. Increase crop value through better market access
3. Increase the biodiversity of agroecosystems
4. Reduce the threat of non-communicable diseases for the population of Sri Lanka (est. 74% adults in 2011).

If organic agriculture aspires to such goals, it is possible to contribute effectively towards sustainable development. However, national goals such as these are not time bound. An acceptance of the need of such goals are the only thing required, the process to achieve it will take its time.'

Organic agriculture is a very powerful tool in land management that works with the component biodiversity of farms to further the aims of providing humanity with clean, healthy food while at the same time contributing to the goals set out in international conventions such as the CBD, CSD and Kyoto protocol. The standards set for the management of on farm biodiversity has the potential to realize the goal of the CBD "conservation and sustainable use of biodiversity'. It will resist the degradation of farm landscapes into broadacre monocultures by maintaining diverse, mixed, production. It also provides answers for the current crisis in climate change.

The ratio of internal vs. external energy into an agroecosystem provides a measure by which the degree of sustainability can be addressed. Biodiversity provides a further measure that helps to identify sustainable from unsustainable approaches to agriculture. However, the differences between natural and anthropogenic biodiversity suggests that the development of a robust body of knowledge on anthropogenic biodiversity is an urgent need.

Organic agriculture is a component of ecological land management or the maintenance of an environment amenable to all measures of sustainable development. Certification systems allow for social and economic recognition to be given to such management. Biodiversity often provides indicators, which facilitate the application of such certification systems.

The rise in the public perception of ‘organic agriculture’ began at about 1970 and the demand for organic food rose exponentially. In such a rapidly growing unregulated market a rise in false labeling became a concern. Many consumer and farm groups lobbied for control and laws protecting the use of the term ‘Organic’ were passed. The verification of the production system was done through inspections and confirmed by the issuance of a trading certificate.

The questions of impartiality and conflict of interest when issuing a trading certificate were also examined at various national and international fora, where the need for inspections to be carried out by an independent third party institution, which is in turn accredited to perform inspections by a national accreditation authority, was stated.

In Sri Lanka the structures for accrediting inspection services and evaluating the standards adopted in certification are now established. It is now incumbent on the researchers to ensure that the four critical and fundamentally important goals of organic farming are clearly stated in the national standards.