

# Impressions of South China's Efforts to Achieve Sustainable Agriculture

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**Abstract:** Evidence of the damaging effects of South China's long agricultural history is written on the land. The goal of achieving sustainable agriculture in China is part of a change in world thinking of making agriculture and the environment fit hand in hand. To achieve this goal requires that ecological principles be blended smoothly and effectively with agricultural practices into a new applied science called agroecology. However, efforts in sustainable agriculture need careful attention to assure that they do not produce unintended consequences.

Decision makers at whatever level, are faced daily with finding solutions to complex problems related to social, economic, political, and environmental concerns. Because it is likely that such decision makers were not trained specifically as scientists, applied researchers, like those in sustainable agriculture, need to consider the written delivery of their research findings in a form that will be easily understood by the non-technical reader. By simplifying the scientific writing and delivering it to the decision maker(s) as a short, interdisciplinary narrative, the researcher may see his or her work implemented more quickly. By doing so, the researcher may find that in the future support for additional important research will be more forthcoming.

**Key words:** sustainable agriculture; decision makers; South China

Evidence of the damaging effects of South China's long agricultural history is written on the land. Although progress in land improvement is evident at many localities, one can easily see the adverse effects of forest destruction, extensive and severe soil erosion, siltation of waterways, water-logging of agricultural fields, and loss of wildlife and wildlife habitats to mention a few. China's researchers today are working to bring these damaged lands back into productivity, a productivity that can be sustained. Many field examples exist illustrating techniques that suggest that sustaining long-term land productivity may be possible<sup>[1]</sup>.

The goal of achieving sustainable agriculture is sought today by an increasingly large segment of the world's agricultural researchers and farmers. To achieve this goal requires that ecological principles be blended smoothly and effectively with agricultural practices into a new applied science called agroecology. The acceptance and application of agroecology is developing at different speeds from country to country. It seems to have a firm hold in South China. Perhaps in part, this is because China's agroecologists have been able to draw on China's thousands of years of recorded history of agricultural practices and experiences. From these records, the researchers can gather evidence of

past applications of agroecological principles that might be adapted and reapplied today. Similarly, Chinese researchers have studied the agricultural practices of their many minority populations and found, here too, evidence that some groups even without formal training, know how to blend ecological knowledge with farming practices in productive ways.

Large and small-scale examples of various forms of sustainable agriculture exist on South China's flat lands and steep hillsides. They are too numerous to describe here in detail but some major ones include various forms of stereo-agriculture, combined engineering and biological approaches to halt massive soil erosion and landslides, stabilization of shifting sand dunes, dike-pond systems to reclaim water-logged fields, cropping systems that mimic the structural and ecological characteristics of a tropical forest cover that once existed here, vegetation arrangements to minimize typhoon damage, and biogas generation. Economic data supports that the local population benefits directly from application of such techniques<sup>[1]</sup>.

My impressions of South China's efforts to achieve sustainable agriculture are derived from two different experiences. First, over the past ten years, I have cooperated

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