

# 京都大学文学研究科 グローバル COE 「親密圏と公共圏の再編成をめざすアジア拠点」

### 学会発表渡航支援報告書

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発 表 題 名	"Cool Vegetables" in a Critical Countryside: Biochar's Foray into	
(英語)	Eco-Branding and Japanese Rural Revitalization	
著 者 名	Steven McGreevy	
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### Presentation

Traditional rural Japanese landscape and lifestyle took place within the natural boundaries of satoyama watersheds. Resources for everyday life were derived primarily from the immediate surroundings and lands were managed in cyclical, sustainable ways. After WWII, these ways of living and land management systems shifted substantially.

Like rural areas in many countries, Japanese agriculture and rural society is experiencing decline in all spheres (depopulation, aging, lack of economic opportunity, etc.). Ironically, the demise of the traditional charcoal industry has accelerated this decline and, coupled with the collapse of the forestry sector, decreased the ecological resilience of the Japanese countryside (overgrown forests, biodiversity loss, habitat loss, wildlife damage to crops increasing, etc). As these rural crises are compounded by the climate crisis, the need for low-cost, multifunctional economic solutions that increase the sustainability of rural livelihoods as well as the health of the environment is high.

Biochar implementation projects have the promise of such a solution, although it is unclear what role they will play in the actual context of rural socio-ecological systems. Furthermore, as the technical and policy-related aspects of biochar are being discussed at length, little is known on how biochar as a technology and food-related product will be accepted by the public. This study looks at both of these concerns by illustrating the case of "Cool Vegetables," an eco-brand for produce cultivated with biochar in a rural area of Japan (Kameoka City, Kyoto Prefecture).

Among other questions, this study asks: 1) Is there space at the table for "climate-friendly" foods in an age of organic, local, and healthy food booms? 2) Can biochar address the multitude of rural problems facing agricultural communities? 3) How does biochar production effect local and regional ecosystems?



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The socio-economic impacts of biochar as a soil amendment, eco-brand, and retro-innovatory technology are examined through the experiences of biochar producers, vegetable farmers, wholesalers, and consumers. In addition, the prospects of biochar as a source of social and economic revitalization for depressed rural areas and the potential of biochar production to renew traditional land management patterns and increase ecological resilience in rural Japan is evaluated.

While any concrete conclusions have yet to be reached, the "Cool Vege" and Kameoka Carbon Minus projects offer a model for rural society to restructure itself in a way that reduces it's carbon footprint as well as bring sustainable rural livelihoods to those in agriculture. Eco-branding is another level of added value that farmers using biochar can take advantage of in order to secure vital financial resources to continue agriculture. The shift toward revaluing ecological services, namely climate mitigation, through the implementation of biochar projects in rural areas may mark the beginning of a new way forward for rural revitalization in Japan.

#### **Question and Answer**

Questions from the audience were wide-ranging. The first question was "Why the Japanese have withheld research results from experimentation performed during the 1970s and 1980s?" As I am familiar with some of the people most intimately connected to that research, I was able to answer that the withholding of information was not deliberate, that a language gap does exist that must be surmounted, and that much of the research was done some thirty years ago and is not a high priority item on those same researcher's agendas. The second question and a number of subsequent questions related to specific information on the MOKI Smokeless Carbonizing Kiln—measurements for biochar with or without water saturation, relative efficacy measurements, cost, etc. I answered the questions I was able and talked with questioners afterward while referring to the data directly. Other questions were directed at satoyama and whether satoyama could serve as a model for a sustainable village or society. Being familiar with attempts at sustainable societies (Ecovillages, Transition Town, etc.) I was able to answer that yes, satoyama and rural Japanese villages in general are a model for sustainability. The Satoyama Initiative is a body currently researching satoyama-like landscapes and land use management patterns at a global level.

#### The Conference

In general, there were three main groups of attendees and a few sub-groups. The main attendees were either 1) with the technical biochar community, manufacturing pyrolysis machinery or biochar amendments and in the business of selling those machines and amendments; 2) members of academia in either the soil sciences, physical chemistry, or agronomy testing various aspects of biochar; 3) those dealing with the legalities of biochar carbon credits and carbon markets. The sub-groups were 1) backyard biochar enthusiasts; 2) members of academia or



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NPO groups investigating the social scientific, anthropologic, and livelihood elements of biochar systems in developing and developed countries (I include myself in this group); 3) students interested in biochar.

There were over 250 attendees at the conference, a pre-conference symposium, eight plenary sessions, six breakout sessions (with at least three presentations each), a poster session, excursions to Iowa State bioenergy research facilities, and various ad hoc meetings held after conference hours.

