



Title :	A profitable solution to Thailand's HAZE PROBLEM
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that turns waste corn stalks into a valuable product?

This is what Theerasak Charassrivisit, director of the Chiang Mai Provincial Energy Office, is doing. Theerasak is teaching farmers how to turn their corn stalk and corncob into "biochar" – a pure form of charcoal – using do-it-yourself technology. "Pyrolysed" corn waste produces no smoke, no particulates, almost no greenhouse gases and actually removes CO₂ from the atmosphere. Then – this is the creative part – Theerasak teaches people to make sustainable, no-smoke charcoal for cooking and barbecues, for which there is a ready market.

Corn waste into money

Hundreds of people attend Theerasak's training sessions. Today these people are turning hundreds of thousands of kilograms of corn waste into biochar. As they do, all of the would-be smoke is not filling our air. (To put this in perspective, a poor farmer with one rai of corn produces one tonne of corn stalk with every crop. Burned in the field, this produces six kilograms of smoke. Six kilograms of smoke is equivalent to the smoke produced by 428,574 cigarettes. Thailand produces some 5 million tonnes of corn annually and approximately 2.5 million tonnes of corn stalk. It is estimated that as much as 50 per cent of corn stalk in the North is field burned.)

So what's the model? Offer people a simple, easily understood, easily imitated way to make money from waste.

Theerasak has created a social enterprise. He has created a business model that transforms a social problem – the field burning of agricultural waste – into a business opportunity. He is solving the haze problem – a huge national and regional benefit – but he is also reducing poverty among the very poor, slowing climate change by removing black carbon and CO₂ from the atmosphere, and improving the public health. Theerasak's social enterprise creates wealth from waste and jobs in the dry season when there are none.

It is time to get past the "experts" who think that environmental problems always require the ongoing expenditure of large amounts of money, and time to recognise that smart, social enterprise business models like Theerasak's can transform even environmental problems from loss-making to profitable business opportunities.

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