



Mrs Wong, the first farmer to convert to organic farming in Balik Pulau, Penang.

Organic farming takes root amidst agricultural decline

In the 1990's, a group of young people and consumers interested in organic farming and its products, encouraged a farming community in the hills of Penang island to convert to organic farming. Their help with marketing and thus cutting out the costs of middlemen was particularly helpful.

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As in most Third World countries, chemical agriculture and industrialisation arrived in Malaysia around the early 1970s. The effects are now well-known: small farmers have been squeezed out (the agricultural workforce in 1970 was around 60%; by 1992 it had dropped to 26%); the food deficit mushroomed (food imports in 1991 were US\$0.4 billion; and by 1995 they amounted to US\$2.8 billion); food self-sufficiency (in 1995 at 50%); and agricultural land allocation became skewed in favour of cash-crop plantations which occupied 80% of all agricultural land. The

above figures were taken from 1990-1995 Government Budget Reports. If there is any success to be claimed it is the killing of agriculture itself!

Farmers' retreat from the hills

The hill community in Balik Pulau, Penang, was founded soon after the colonisation of the island by the British about 150 years ago. Poor migrant Chinese were given land to encourage them to start rubber plantations, which the locals were not interested in. But the rapid decline of rubber prices over the decades after the Second World War forced many farmers to diversify their production and convert to vegetable growing and orchard keeping. The new cash

crops (nutmeg, cloves, etc.) did not last long due to the same price decline, while vegetable growing was hampered by exploitation from middlemen. Only orchard keeping, mainly durian, the local favourite for which demand and price levels are stable, remains as an economic mainstay. From the 1970s onwards, most farmers progressively left the hills for the towns below, or even further afield to the booming 'Free Trade Zone' on the other urbanised side of Penang Island. Only a few families and lone old people stayed behind in the hill community. The decline was so rapid that many lands were left unattended for years before developers bought them up.

Organic farming, an urban initiative

Awareness of the health and environmental consequences of chemical agriculture led a group of urban youngsters to bring organic farming to the Balik Pulau hill community in early 1990. This remote farming community, where one member of the youth group was brought up, was targeted because it was considered to be the remaining layer of society that still possessed valuable traditional agricultural knowledge. It was proposed, in face-to-face meetings with farmers that they should begin to farm organically. The encounter proved to be difficult at the beginning due to communication and social barriers. Farmers were not convinced of the need and feasibility of organic farming. So the youths started a volunteer-run pioneer organic farm in the community while maintaining their advocacy to the sceptical farmers. It took two years to warm to the issue of organic farming before one of the farmers was prepared to give it a try. During those two years, numerous volunteers and visitors - many from schools and youth groups - hiked the thousand feet up to the pioneering organic farm to do voluntary work and speak to the farmers about their need for organic produce. Meanwhile the volunteers registered themselves as a society: The Penang Organic Farming Club. But it was only after an unforeseen accident in the village that this situation changed in favour of the Club.

The Wong Family

One of the earliest farmers contacted in the area was a Mr Wong. He ran a monocrop watercress farm of three acres near his house. He was spraying pesticides onto his

crop two to three times a week, wearing nothing more than a t-shirt while working. When told about the dangers of pesticides he shrugged off the problem by saying that he was still alive after years of spraying. But not much longer - one year later he was struck down by cancer. He was only fifty, still quite young. Earlier, farmers who did not use agro-chemicals, lived to be 70 or 80 years old.

Before this, one of his sons had committed suicide in his 20's by drinking paraquat, a notorious weed killer, allowed in Malaysia but banned in many other countries. A survey revealed that half of Malaysian suicides involved the use of this easily accessible poison. The misfortune that hit the Wong family, unfortunately, is not uncommon in the hill community, where many people become victims of pesticide use. The advocacy for organic farming opened an option for the widow of Mr. Wong. She took up organic farming with her daughter-in-law on a trial basis. When the produce was sold she was able to see for herself the benefit of the co-operative marketing that was promised her.

Co-operative marketing

The produce is carried downhill by the farmers on their motorbikes - the hill community cannot be reached by cars. From there the Penang Organic Farming Club provides a pick-up truck to transport the produce to outlets in town, with a population of one million. The outlets are usually the homes of customers, vegetarian restaurants, traditional medicinal shops etc. The outlet coordinators are often housekeepers from among the customers. The produce is priced according to the market, i.e. same as for chemical farming products, but with an additional 15% to pay for the outlet coordinator and transport. The consumers guarantee the entire sales and support farmers with voluntary work. 100% of the market price is paid to the farmers. This arrangement benefits the farmers because there is no middleman. Exploitation by middlemen, who usually claim 50% or more of the market price, drove farmers away from vegetable farming in the past. By the time of reporting, however, there are six outlets, open three days per week for the sale of organic produce. The voluntary work of the consumers in the co-operative helps to avoid high price tags which usually apply to other health food products.

Farmers' self-propaganda

The success attained by the first farmers attracted more farmers to join in through the extended family and social network. While at the beginning there were more women part-timers, now there are full-time male farmers as well. The close-knit community does not need a formal body to coordinate the group. They meet three times a week at the collecting and packing point provided by Mrs Wong. The women continue to play the coordinating role in

the group. They organise the collection of vegetables and have created a forum for trouble shooting in the farms as well as in the group.

A low-external-input approach

For soil fertility management, farmers utilise dried fish meal, prawn meal (both easily accessible from two fishing villages at the foot of the hill), ashes from their wood-burning stoves, human urine, compost etc. Water is derived from uncontaminated springs which also supply water for cooking, washing and even power generation, as the village is out of reach of the main grid power system. Irrigation takes place with buckets, hoses or sprinklers, depending on the farmer's choice. One old farmer even continues to use bamboo to convey his water - no pvc pipes for him! Interplanting and crop rotation, e.g. between insect-resistant vegetables such as lettuce, water convulvulus, sweet potato leaves, mint etc. and insect-vulnerable vegetables, such as mustard greens, kailan (of the cabbage family), amaranth, green beans, etc., is the main method for controlling pests. Even botanical sprays made from onions, garlic etc. are rarely applied. Except for a grass cutter used by the younger farmers, no mechanised tools are used. In this way the farmers are able to manage between one and three acres of vegetables on terraced slopes of mainly sandy loam soils.

The whole conversion to organic farming was undertaken entirely with the farmers' own resources, very much in line with their long-standing tradition of self-reliance. This is a vital contrast with chemical agriculture, whose introduction needed lots of cash and still needs high subsidies to survive. Self-reliance is not only limited to agriculture, it is a survival strategy and a social way of life. There are many examples of the self-reliant spirit of the farmers: they build and maintain their own road system which criss-crosses the entire hill area of Penang. They mobilise the community for house building, when all materials have to be transported up the hill. Herbal medicines are the first resource when it comes to discomfort or illness. Many of those who have stayed behind were born and bred in the hills, and they do not fancy moving lower down. Organic farming therefore, seems to provide the kind of economic opportunity that they need.

Replicability

Due to the low costs involved, the experience in Balik Pulau, Penang, probably has high replicability elsewhere. There is no need to send paid extension workers, run formal training sessions or set up an office with modern equipment and comforts. Organised consumers provide most, if not all, the backup needed, in terms of resources, to run the pioneer organic farm and to staff the office in town. In fact, the Club does not need to generate income from the sale of vegetables - it raises its own funds

from membership dues and activities. This includes running two regular newsletters, in two local languages, for literate city folks; a weekly health food kitchen, which utilises the organic vegetables from the farms; a Green Store, which sells farm produce such as nutmeg juice and other environmental products; an annual Green Expo, to showcase organic farming techniques, health food cooking, natural therapies etc. Through these activities the Club endeavours to integrate production with consumption, farmers with consumers and to create new, ecologically sustainable and socially just relations.

Farmers-consumers cooperation

In Penang, cooperation between farmers and consumers is the vital link that propels organic farming forwards and which, importantly, protects it against commercialisation. The farmers have proved themselves capable of earning, through the cooperative system, a professional income of US\$400-800 per month - about the same as a teacher or accountant can earn in Malaysia - while the average consumer can enjoy otherwise out-of-reach organic produce. Almost weekly for the last two years, visitors and volunteers have travelled to the community to involve themselves in organic farming. These visitors serve as a link between the farmers and consumers. Occasionally farmers voice their views in fora held in town to further mutual understanding between them and consumers and to spread their experience to farmers and consumers from other areas. Already there are indications of an interest in organic farming in other parts of Malaysia.

Conclusion

While the demand for organic products is higher than supply, the challenge to fight the prejudice against the viability of non-chemical agriculture, spread through many years of promotion, advertising and brain washing by chemical multinationals backed by multi-million dollar subsidies from the government, and to fight the decline of agriculture in the face of the country's single-minded rush to industrialisation, continues. It remains difficult to say if organic farming can check or help stabilise agricultural decline in the country. However, what is certain is that organic farming has taken strong roots through its adoption by the Balik Pulau hill community - the very first group of organic farmers in Malaysia.

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