

Embarking on the road to sustainability

At the start of a new year it is customary to think of change and how things might be done differently to add value to our lives and those around us. Sustainability should be a major part of any such plan. Sustainability is also at the heart of His Majesty's sufficiency economy theory, the wisdom of which is undeniable. However, although sufficiency has been given priority by successive governments in word if not in deed, Thailand, like the great majority of countries, has a long way to go before it can be said to be truly on the road to sustainability.

In the modern world, sustainability relates primarily to the production of food and energy and the conservation of natural resources.

With respect to the former, Thailand does well. The country's farmers produce an abundance and variety of agricultural goods, enough to easily feed the population, with big surpluses of some products left for export. Food is relatively inexpensive and few people go hungry.

On energy, Thailand is a net importer of fossil fuels, and this will become increasingly costly. The government should speed up delivery on its promise to develop renewable energy sources, especially solar.

In this respect it is encouraging to learn of the large-scale solar project underway in Lop Buri, as reported in this week's *Spectrum* magazine.

When it is completed some time this year, the 1,200-rai Natural Energy Development solar plant in Khok Samrong district will begin generating 84 MegaWatts of electricity and become one of the world's largest thin-film PV solar facilities.

Rather than wait on the government to make sustainability a reality in our society, there are many things that we can do as individuals to conserve natural resources. One of the simplest is to become more energy efficient, for example by using a fan instead of the air-conditioner in cooler weather such as we've seen in the past few days; by car-pooling or using public transportation or by turning off lights and appliances that aren't needed. We can also postpone the purchase of consumer goods for a while longer than we normally would and get more use out of the ones we already have, rather than consign them prematurely to the rubbish heap. As consumers we should ask ourselves if we really need something before we buy it. This goes for electronic gadgets in particular.

When practised collectively, such simple acts add up to huge savings in energy and resources.

Ultimately the goal should be substantially self-sufficient communities, which of course requires effort and resources. This could mean, for example, community vegetable gardens on public and private land.

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In the US city of Detroit, for example, such gardens have come to symbolise hope in an urban landscape that has been laid barren by the exodus of the big car manufacturers.

The gardens not only provide growers with a source of food and income, they also improve environmental quality.

In a city such as Bangkok where land is at a premium, gardens would have to be smaller for the most part, but with a little imagination there are many surfaces that could be converted to gardens, for example on the many of the city's flat rooftops.

Instead of relying on far-away power plants and that pollute the environment, the day is fast approaching when communities will be able to supply their own energy needs with the wind and sunshine that comes to them naturally. Some say that day is already here.

On the Danish island of Lolland in the Baltic Sea, energy produced through wind turbines is used to power an electrolyser, which separates water into hydrogen and oxygen.

The hydrogen is then used to power fuel cells that provide the community with electricity at all times, even on windless days. Electrolysers can be powered by solar energy as well.

These sorts of applications are here now and they will become more prevalent, more efficient and less expensive in the future. An initial investment is needed of course, and this is where the government can and should step in.

It is by the government putting money into communities for these kinds of technologies that Thailand will embark on the road to true and lasting sustainability.