



Yorkshire and the Local Sufficiency Economy

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Introduction

In West and North Yorkshire, as in many other regions of the UK, small-scale projects are being developed on indigenous sources of food and renewable energy. These illustrate the real potential for local economic alternatives that reduce dependency on non-renewable resources while also cutting carbon emissions. But, not surprisingly, they also highlight the enormous challenges that face any serious, comprehensive programme based on the principles of a no-growth and zero-carbon economy.

This is an initial review, focusing on three examples, to illustrate how activities that would have been considered marginal only a few years ago can be rapidly developed. As such, they provide signposts to the practicalities of adopting a sufficiency framework for the local economy.

Incredible Edible

A good example on food production is the 'Incredible Edible' project in Todmorden, W. Yorkshire. (www.incredible-edible-todmorden.co.uk) Established in 2008, its main remit was to encourage the growing of local food, initially through the provision of raised beds and planters around the city centre for a variety of vegetables and herbs. Since then, the project has expanded by utilising small plots of land alongside main roads for community allotments, while also working with local schools and housing associations to set up their own schemes.

These include a hydroponics scheme with Todmorden High School combining fish farming and vegetable growing in a closed-loop system, whereby the nitrate-rich effluents are

pumped around gutterings to feed the plants, with the oxygenated and cleaned water then returned to the fish tank; local egg production under the Farm Gate scheme that allows fresh eggs to be sold direct to the public from low-volume producers; and fruit-tree planting around Todmorden. Incredible Edible is also developing a horticultural training scheme for young people in partnership with the Co-Operative Society.

One of the most striking features is how quickly the scheme has developed a positive relationship with the local authority over what can be quite complex issues of land use. A standard form is now available from the local authority to community groups, providing access to identified pieces of land at a nominal rent and with appropriate insurance cover. Rather than have to deal with different departments in what could be a potentially long process, the land can be released quickly if the local demand exists.

As with many voluntary organisations, the issue of funding is an ongoing concern. Incredible Edible is now constituted as a not-for-profit, community interest company and relies on donations and grants to fund its various activities. There are ambitious plans for expanding activities, including a community shop to sell local produce and to increase local food production through market gardens, but the scope for future activity could be constrained without guaranteed funding.

Settle Hydro

Settle Hydro is a community-owned, hydro-electric scheme based in the North Yorkshire town of Settle. (www.settlehydro.org.uk) Established

in 2009, the main objective was to identify local sources of renewable energy that had the potential to generate electricity and then to use the revenue for local community projects. Various technical assessments were carried out before the choice was made to develop a site on the river Ribble.

Settle Hydro was set up as an Industrial and Provident Society with technical support from the Halifax-based Water Power Enterprise (h2op). Funding was obtained from various sources including the Co-operative Group and also from a shares issue, with the main expenditure being for an Archimedes screw device built by the German engineering company, Ritz Altro. The design is based on the principle of a rotating screw that uses the water flow to generate electricity, and it became operational in the autumn of 2010, with an estimated 165,000 kWh units a year generation capacity, while also saving the equivalent of 80 tonnes of carbon emissions per year.

Kirklees Re-Charge

Kirklees local authority, serving the Huddersfield/Dewsbury area of W. Yorkshire, has been in the vanguard of home-energy efficiency programmes for many years and, more recently, has developed local, renewable energy projects. Perhaps it is best known for the Warm Zone project which provided free loft and cavity wall insulation under a £20 million, three year programme paid for through a £11 million Carbon Emissions Reduction Target (CERT) payment from Scottish Power and £9 million payment to the local authority from the sale of its shares in the Leeds/Bradford airport.

Yorkshire Energy Services (YES) is the managing agent, providing the

initial assessment and overseeing the work of local contractors. (www.yorkshireenergyservers.co.uk) Thirty-six thousand loft insulations and seventeen thousand cavity wall insulations have been carried out, saving an estimated 39,000 tonnes of CO2 a year, and reducing energy bills. A local economic impact assessment demonstrated that the initial investment had generated £80 million in the local economy through employment and income multipliers. Particularly important had been the expansion of Miller Pattinson, the lead contractor for insulation, with a new depot and training centre in Cleckheaton that employed 85 staff and trained 200 fitters.

More recently, YES, has been rolling out the Re-Charge scheme which provides interest free loans to install renewable energy and low carbon technologies. Each household can receive up to £10,000 in a loan for a range of projects including solar photovoltaics, biomass, hydro-electricity, solar water heating, and ground source and air source heat pumps (although not wind power). Essentially, the loan is a secured, second mortgage on the property. YES will supervise the process from initial assessment through to monitoring of the work which has to be done by accredited contractors.

Localism and Transitional Green Economics

These initiatives are significant because they reflect a groundswell of support for localisation and demonstrate the capacity of community groups working with local authorities to bring some level of influence and control over their economies. In a relatively short period of time, a series of practical

programmes have enhanced people's quality of life through the production of food and energy, and through new skills and resources that can be used as an asset pool for community benefit or for re-investment, as well as contributing to environmental targets such as reduced carbon emissions and resource substitution.

But they also raise very serious questions about the capacity to produce locally. In the case of the hydro-electricity project, the main equipment is manufactured by a German company and transported to Yorkshire, while for solar power energy equipment, the nearest manufacturer is in Wales. Local economic activity is related mainly to the installation of equipment and its servicing. The issue of access to land for food production also needs to be considered in the context of severe shortages and rents to external owners for larger landholdings.

So, as presently configured, much of the investment raised for local projects is transferred to external suppliers, severely reducing the potential multiplier benefits that would otherwise flow from local production. Indeed, in terms of the capacity for maintaining income and employment through the local economy, the expansion of micro-energy systems may simply lead to further dependency on external suppliers if global market-leaders dominate production.

Does this matter? Technological innovation requires access to both a capital and skills base that, in turn, is dependent on widely-distributed industrial networks. In other words, without an advanced, capitalist system it would not be possible to develop and produce an Archimedes screw, or a solar power panel, or energy-efficiency

control systems. Local projects, although obliged to pay towards the costs of these networks, benefit from the general flow of goods and services that they sustain, while still retaining some surplus that can be used for community benefit.

Supporters of increased localism acknowledge the reality of globalisation but usually respond by calling for a transitional programme, firstly by focusing on government policy at the national level and using incentives, including grants and R&D support for the growth of manufacturing capacity that, in turn, can stimulate local economic development. The objective is a strong manufacturing base across a range of industries, particularly renewable energy and energy efficiency equipment, with a growing employment base running into the hundreds of thousands, if not millions.

Perhaps the best known and certainly one of the most ambitious is the New Economic Foundation's 'Great Transition' project. (www.neweconomics.org) In a clear and methodical analysis, it sets out how the UK economy could, in the medium-term, achieve the goals of zero carbon emissions and a significantly reduced dependency on overseas energy supplies while, at the same time, increase the local capacity for food, renewable energy production and energy efficiency equipment.

Similarly, the Sustainable Development Commission has identified the scale of the challenge in attempting to both dematerialise the economy by significantly reducing the throughput of non-renewable resources, and to achieve zero carbon emissions within the overall framework of a no-growth economy.

(www.sd-commission.org.uk) A sophisticated macro-economic model is put forward to demonstrate that, by a radical programme concentrating on investment rather than consumption, these goals can be achieved while averting the threat of depression and mass unemployment usually associated with the end of growth. However, they caution that the window of opportunity is a narrow one before the cumulative effects of climate change impose terrible costs on the economy.

In comparison to mainstream economic approaches that continue to stress international trade and growth, NEF and the SDC certainly demonstrate how the UK economy can be set on a very different trajectory that addresses the fundamental issues of resource depletion and environmental degradation. But their attempts to balance radicalism and incrementalism look naive. On the one hand, they acknowledge that the transition is perhaps the greatest challenge ever faced by advanced industrial societies, requiring what amounts to a revolution in economics, while on the other, they advocate policies that rely heavily on market forces and transnational corporations to achieve these goals.

The contradictions between the ambitions for a no-growth, localised economy and the capitalist dynamic to maximise profit and market share are unresolvable. By leaving the global system of production and trade essentially intact, there will be little counterbalance to the extension of economic power by corporations that will dominate not only the old energy-intensive industries but also all the areas of production in these newer industries.

If transitional, green economics takes

hold to any degree (and that is a very big if), it will be around institutional manoeuvring, with government incentives offering the usual array of support to attract private investment, including R&D and relocation grants. Corporations will take advantage by selling themselves as 'national champions', providing domestic capacity and local supply chains. But the unavoidable reality of capitalist production will be that they will draw on a global resource base and be driven by the imperative of expanding international markets for their products to ensure future profitability.

Some differences will exist between national models as to the degree of interventionism by government, but those differences will pale into insignificance compared to the overriding dynamics of capitalist production. Rather than achieving the objectives of dematerialising the economy and eliminating carbon emissions within a zero-growth framework, transitional 'green economics' will be used as a prop to support the further expansion of a destructive, capitalist globalisation.

At its worst is a country like China, an authoritarian, state-capitalist regime. In many quarters China is now praised as the leading developer of renewable energy equipment for domestic demand. But the Chinese government is also determined on pursuing an expansion of global markets for those products by utilising a global resource base and supply network. This is simply part of an aggressive, economic imperialism shared by the leading Western powers, that seeks to secure control of overseas, non-renewable resources in order to maintain a high growth path.

Local sufficiency versus capitalist

chaos

Localism, therefore, is not a counterbalance to the continued reliance on global capitalist networks. It must be seen as the development of an independent capacity to reproduce the material base that supports the necessities of life within the framework of a no-growth, zero-carbon economy. Rather than a transitional model, this would be more accurately described as a parallel economy that can function independently of capitalism in order to replace it.

The immediate rejoinder will be that to exit from the global, capitalist system will be to plunge us into chaos. Gone would be the Western way of life that has provided material benefits scarcely imaginable even a few generations earlier. At best we might salvage a rudimentary, subsistence economy and at worst be plunged into a form of social chaos, a new dark age, where life will be nasty, brutish and short.

But that's exactly the way things are going now. We are in an emergency situation because the material lifestyle that has been the the bedrock of capitalism's popular support is based on the illusion of permanent growth, dependent itself on the illusion of continued access to cheap energy supplies.

By historical standards, this global industrialism will be seen to be a very short era. Its initial phase from the late 18th Century to the late 19th Century was centred on Western European manufacturing and based on the exploitation of coal, a relatively inefficient, bulky energy source which restricted growth potential. The second global industrial revolution of late 19th Century onwards, was centred on the

USA, and fashioned out of oil, transforming the scale and scope of material production beyond recognition.

Oil's extraordinary combination of energy intensity, ease of transportation, and adaptability into a range of synthetic materials, formed the bedrock of manufacturing and distribution for a whole new range of industries and processes. There is simply no other material or combination of materials that can do this with the same energy efficiency. And it is running out. So, in the space of only four generations, the age of capitalist abundance has become the age of post-capitalist scarcity.

This is a terminal crisis. There are no clever technological fixes that can reproduce the same pattern of global trade, no new combination of energy sources, no new lighter materials, or other innovations that don't hit the buffers of resource depletion.

On the contrary, while the search for technological fixes will become all the more desperate, the contradictions of capitalism are set to intensify. The breakdown will see increased poverty, not only in the developing world, where food prices will soar and access to water will become increasingly difficult, but also in the advanced Western economies, where a growing proportion of the population will live in absolute poverty and with little chance of ever achieving the average, material lifestyle which capitalism traditionally offered.

In these final stages, capitalism will explicitly demonstrate what has always been its central aspect - forms of political and social control based on coercive power to preserve elite wealth. Authoritarian capitalism will

convey the depletion crisis as a series of threats to national security, with overt, militarist policies to maintain western access to dwindling supplies of oil and other non-renewable resources.

If we are to avoid this fate we need to completely reconstruct the economic system around an alternative, local sufficiency economy. Two key aspects of this revolution will be access and ownership. Access simply means having the range of available productive resources to satisfy the basic material needs of life, including food, housing and transport. Ownership requires complete control by working people and elected local representatives over forms of production, coupled to the power to prioritise investment in the local economy. Fundamental goals will be zero growth, the dematerialising of production and the equitable distribution of goods and services, all embedded in a political culture of direct democracy.

The only way in which this can be achieved is if society is mobilised on an emergency footing. The nearest equivalent would be the transformation of the economy to military production during the Second World War but what is required now is a much more ambitious peace mobilisation, where all public investment resources, including the billions presently wasted on arms expenditure and on capitalist investment through the pension funds, are re-directed to achieving the goals of local sufficiency.

How do we do it? Food is a good, first example. The Cuban oil crisis of the mid-1990s and the expansion of urban food production based on organic principles, demonstrate how an economy can achieve local sufficiency

and democratic control. A combination of factors was instrumental in the rapid transition, including a widespread, popular appreciation that the country faced a national emergency following the loss of Soviet oil supplies; support for the programme as a means of achieving food security; and common ownership of land that allowed for larger, community plots to be developed.

Any programme for local sufficiency here requires a similar combination of access and democratic control. All available land would be reclaimed and held in common ownership and local groups supplied with locally produced and maintained equipment and seed banks. A combination of farms, market gardens and community-owned allotments would provide basic foodstuffs for urban populations, in turn guaranteeing consistent demand that would ensure future re-investment.

Housing is also a priority in the early stages of local sufficiency. New social housing would be built under contract to local housing associations using locally-sourced materials. Both new and older housing can be brought up to a high standard of energy efficiency using insulation material either locally sourced or from recycled materials. A key ingredient is the linkage between energy efficiency and energy-generation based on micro-systems. These would include domestic and community wind turbines, heat sinks and solar power for domestic electricity consumption. Any surplus electricity generated could be used for a fleet of public transport vehicles that are either adapted from existing stock or built under contract to the local authority and provide a reliable and regular service that can eliminate the need for most, urban, private vehicle use.

This first stage of local sufficiency development, then, focuses on these key areas. By a combination of local food production, housing, energy efficiency, micro generation and public transport, it will be possible to significantly reduce overall energy and material consumption while enhancing the stock of good food, housing and transport for working people and creating a broad range of local employment in agriculture, food distribution, construction and manufacturing, as well as energy-saving and micro-system installation.

At the same time this would be creating a resilient parallel economic system that has fewer and fewer external dependencies on international networks of capitalist production based on the exploitation of non-renewable resources, so reducing environmental pressures and ensuring that a post-capitalist economy can function at the local level.

Progress in these areas would also provide the necessary experience and confidence to build a broader technological base that can apply these principles of local sufficiency to other sectors. Here democratic control would be needed to decide how re-investment would be prioritised using similar criteria of long-term resilience. A possible framework could be planning based on a network of technology centres, for maintenance and adaptation of equipment and tools.

All this may seem unrealistic in the context of a global capitalist system and its unrelenting pressure for innovation and newer methods of resource exploitation. But the ingredients of an alternative system, especially access and democratic control, have always existed throughout the history of industrial

society and have been vital in the development of local economies.

For example, in terms of industrial structure, the late Victorian period saw the rapid emergence of a local, municipally-driven public works programme, with local authorities owning electrical and gas supplies, using local suppliers of equipment, and re-investing in other areas such as the direct employment of contractors and local labour for the laying of electricity cabling and gas piping. (As late as the 1970s, many cities still had their own local power generation until the push for centralisation saw them dismantled).

And, as far as ownership is concerned, there are many examples of co-operative structures, the most famous being the Mondragon group, emerging out of a concerted effort to bring industry to the Basque region, one of the least developed areas of Spain in the post-war era. A network of mutually-supportive industries provided significant levels of employment and production across of range of sectors including heating equipment and furniture.

Far from being marginal, local production and ownership have been important ingredients in the development of industrial society and this rich heritage provides a fruitful source for ideas on how a local sufficiency economy can evolve.

Conclusion

It may seem a rather large leap from assessing local food production in West Yorkshire to a critique of globalised capitalism and its replacement by what would be a revolutionary form of economic

development. But these examples have significance precisely because they illustrate how a new economic system could be developed within a relatively short timescale and function independently of global, capitalist networks.

As such, they encapsulate a growing appreciation of the seriousness of the challenge that faces us from the combined effects of resource depletion and environmental degradation. But they also represent an embryonic programme that, if fully developed, will maintain the necessities of life and end our reliance on a destructive and ultimately catastrophic capitalist system.

Put simply, there are no practical economic or technological barriers to local sufficiency, where the objectives of no-growth and zero carbon are embedded in a democratic framework of local planning and investment. All the necessities of life can be satisfied and employment generated using local renewable sources and with a vastly reduced throughput of energy and materials.

But this can only be successful if recognised for its political significance as a movement to create a parallel economy that can replace capitalism. The green transitionary approach, now sanctioned as a realistic alternative to mainstream growth theories, leaves the structures of capitalism unchallenged and relies for its implementation on the same transnational corporations that are expanding markets and further exploiting non-renewable resources. Rather than transition, there will be a grim future of continued depletion and severe climate change, underpinned by imperial military power to protect corporate interests..

As yet, our mental map still has to adjust to the scale of the challenge, not least the capacity to imagine an economy without the capitalist dynamic that even the green transition approach seems in thrall to. Despite the crisis of legitimacy brought about by the financial collapse of 2008-09, there is always the tantalising prospect that capitalism can recreate itself and provide further material benefits.

The latest round of innovations is being heralded as perhaps the most significant wave of creative destruction since the establishment of electrical power, sweeping away old technologies and ushering in a new era based on global and interactive telecommunications. The prospect is enticing, precisely because it can legitimise social dislocation and economic disruption as simply the staging post to a more prosperous future and as the necessary price to pay for greater material progress.

But millions and millions of people around the world recognise that capitalist renewal is a gigantic confidence trick, masking gross and increasing inequalities of wealth and power and a lethal environmental impact. And those same millions want a radical alternative. We can build a new form of work based on social utility rather than private profit, and we can create a balanced relationship between people, technology and planet. Whether we achieve that or not is entirely up to us.