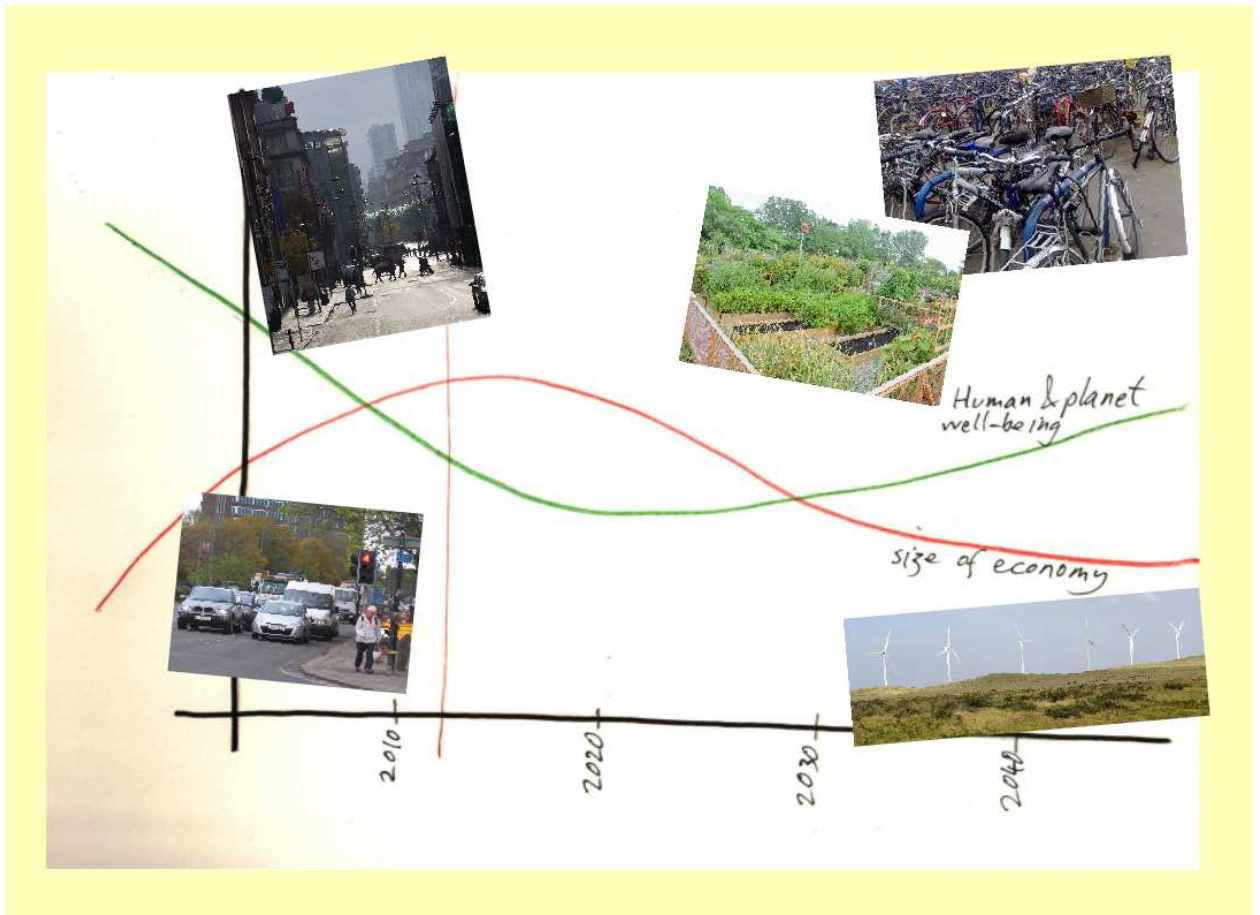


In Place of Growth

Practical steps to a Manchester where people thrive without harming the planet.



A Report by



Steady State Manchester

steadystatemanchester.net

November, 2012

For most of the past century, economic growth was fuelled by what seemed to be a certain truth: the abundance of natural resources. We mined our way to growth. We burned our way to prosperity. We believed in consumption without consequences. Those days are gone... Over time, that model is a recipe for national disaster. It is a global suicide pact.

United Nations Secretary-General Ban Ki-Moon, January, 2011.

About this report

How do we create a society with local prosperity and justice? How do we prepare for the challenges that climate change and other aspects of the ecological crisis are already bringing?

In June 2012 members of what became Steady State Manchester were involved in discussions with Manchester City Council about the idea of a Steady State Economy. While these discussions were open and amicable, we decided that more work was needed to articulate the arguments for Steady State in ways that were appropriate and practical for Manchester. We also wanted to broaden the discussion to include other stake-holders from business (both private and co-operatively run), civil society and academia. This report is a first step in meeting both these aims. This report is published simultaneously with ***Living Well: Practical Solidarity and Steady State Economics***, a report on practical international solidarity in the context of a steady state society. Further reports on Education, Biodiversity and other areas linked to Steady State Manchester will be published in 2013

In general references to “Manchester” mean the City of Manchester although Greater Manchester and the surrounding area are also the wider subject of this report. We take a “bioregional perspective” which recognises the ecological and economic importance of the area beyond the political boundary of the city region.

This report was written by Mark Burton with contributions by David Calver (Green End Thrift Limited and South West London Environment Network), Steven Glynn, Judith Emanuel and Mark Hudson. We are grateful to Victor Anderson (WWF), Daniel O’Neill (Centre for the Advancement of the Steady State Economy and University of Leeds), Eva Fraňková (Masaryk University, Czech Republic), Carolyn Kagan (Manchester Metropolitan University, Jules Peck (Flourishing Enterprise and New Economics Foundation), Steve Connor (Creative Concern), Enric Pol (University of Barcelona) Joe Ravetz, Hannah Knox, Jeremy Carter, and John Broderick (all University of Manchester) for helpful comments on earlier versions, as well as information and encouragement. Needless to say, any deficiencies in the final report remain the responsibility of Steady State Manchester. Members of the International Society for Ecological Economics provided helpful ideas and links, and advice also came from a number of knowledgeable local colleagues from public bodies, NGOs, business and academia in Manchester and beyond.

Contents

Forewords	1
1. Foreword by Ed Mayo, Secretary General, Co-operatives UK.....	1
2. Foreword by Kevin Anderson, Professor of Energy and Climate Change, Director of the Tyndall Energy Programme, University of Manchester	2
The problem – our problem	5
The recession and the options for leaving it.....	6
A Steady State Economy	6
Definition.....	6
Steady State and De-growth	7
More than the economy	8
Steady State Manchester in Pictures	10
Sectors of the economy: selective growth within a steady state.....	12
Objections and responses	14
Objection 1. We can't do this unilaterally – we are connected nationally and globally.....	14
Objection 2. Growth is required to overcome poverty and a steady state economy might in fact increase it.	16
Objection 3. A steady state economy means a return to the Middle Ages.	17
Objection 4. You can't beat the acquisitive, expansive, ambitious and selfish, consumerist aspects of human nature.	18
Objection 5. We can have sustainable growth, de-coupled from greenhouse gas emissions and environmental impacts.	18
A Safe Operating Zone: society, economy, planet.....	21
Aspects of Steady State: Practical Policies and Proposals for a Steady State Manchester	22
Redistribution.....	23

Localisation	24
Defining and measuring well-being and prosperity	28
Debt, money and ecological austerity	31
The replacement economy	37
Reducing consumption and strengthening community.....	39
Different sectors, different responsibilities	42
Steady State as a Mainstream Decision Aid	44
Summary table of recommendations	45
Influencing our context: an agenda for national and international lobbying and campaigning	51
Afterword: Will Growth Return?	54
Glossary / Jargon buster.....	55



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Forewords

1. Foreword by Ed Mayo, Secretary General, Co-operatives UK

At a time of change and economic stress, it is natural to assume that things will bounce back. But there is equal chance that what we are experiencing in economic terms, with endemic insecurity, is going to characterise our future more than what we have known of the past two decades of debt-fuelled, steady growth. It may well be, in short, that this is the new normal.

Change and stability can come in many forms and often they are about the mindset that we have with which we view the world around us. You can feel entirely stable on a bicycle travelling at speed, if you have forward momentum. A touch of flu and even the most comfortable armchair can feel like you are at sea. The mindset of a steady state economy asks us to combine what we think of in terms of business, income, jobs and money in entirely new ways.

We are used to the forward momentum of economic growth, that at some fundamental level we can believe that there is more stuff coming our way, more good and services we can access. When that happens, we have consumer confidence - when we don't, it is a recession. The trouble with this mindset is that it is fast becoming incompatible with the world ahead, because it rests on the assumption that we can strip more resources out of the earth and pump more waste into the biosphere. If we can't, then we need a new framework. In the words of Ruben Nelson, Executive Director, Foresight Canada, we need to "learn the future faster in order to cooperate with our own evolution."

Predicting the future of course can suffer from other biases, in terms of mindsets. Not least, we tend to gravitate towards optimism or to pessimism. The idea that we are moving into a far tougher, risk-inducing economic framework because of environmental insecurities over the coming decades (timing is all, as ever, but the direction is clear) sounds pessimistic - but I don't personally feel that this is what defines its reasonableness. There is, quite simply, a wealth of scientific data, from climate change through to habitat and species loss, which points in this direction.

I tend to be an optimist, for example in terms of technology change. But I can't rescue today's economic orthodoxy through assumptions of life saving technologies. If anything, technology is speeding the same processes that maximise our use of natural resources.

The steady state economy is a mindset that asks us to assume that we have to tread lightly in terms of energy and resource use, that we have to move towards a re-use of waste as an economic input and that we have to shift our patterns of consumption towards zero carbon emissions within a relatively short period of time. On one estimate there are now only fifty months to change course before the balance of scientific risk is of the side of a temperature rise of over two degrees - the cut-off agreed to be a doorway to risk on a global scale.

The steady state economy also asks to think about other things that we can grow and develop at the same time as holding our environmental impacts down. It is not a form of cultural entropy or decay. As this visionary report for Manchester makes clear, there are imaginative options open at the city level and all of them tend to start with an interest in people and community.

There are fundamental limits to what we can safely do to the environment. We have yet to discover limits to what we can achieve through co-operation and community.

A steady state economy may sound difficult, something not for now. But the alternative, to continue as before, is impossible. We had better start now.

2. Foreword by Kevin Anderson, Professor of Energy and Climate Change, Director of the Tyndall Energy Programme, University of Manchester

We are where we are ...

As evidence mounts that climate change impacts can now be differentiated from natural climate variability, so the international community's rhetoric around mitigation escalates.

PricewaterhouseCooper (PwC), government chief scientific officers and a growing cadre of academics echo the concerns of the International Energy Agency's (IEA) chief executive, that *"The current state of affairs is unacceptableⁱ*. As Maria van der Hoeven goes on to note ... *Energy-related CO₂ emissions are at historic highs, and under current policies, we estimate that energy use and CO₂ emissions [will] increase by a third by 2020, and almost double by 2050*. Building on this, Fatih Birol, the IEA's chief economist, concludes ominously that current emission trends are *"perfectly in line with a temperature increase of 6 degrees Celsius, which would have devastating consequences for the planet"*.ⁱⁱ

All this is far removed from the international community's 1992 ambition to stabilise "greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."ⁱⁱⁱ More disturbing still, as the global community was agreeing, in 2009-10, to "hold the increase in global temperature below 2 degrees Celsius, and take action to meet this objective consistent with science and on the basis of equity", so annual emissions growth rose to a record 5.9%, despite an economic slow-down in the West.

Exacerbating this already unprecedented challenge is the grudging acknowledgement by the policy community that framing climate change as an issue of long-term reductions targets (e.g. 80% by 2050) is without scientific merit. Instead, the 2°C threshold between acceptable and dangerous climate change links not to emission-levels in 2050, but rather the ongoing build up of carbon dioxide and other long-lived greenhouse gases in the atmosphere. The implications for meaningful mitigation policy of this scientifically-literate interpretation of the challenge are profound and ultimately underpin the legitimacy, timeliness and importance of this report.

What do we need to do?

Characterising climate change as an issue of cumulative emissions, and carbon budgets, transforms fundamentally the chronology and urgency of policies for reducing emissions. No longer can mitigation be the preserve of low-carbon energy supply technologies rolled out in 2025 and beyond – instead it calls for immediate and deep reductions in emissions.^{iv} For the wealthier nations, such as the UK, the situation is yet more difficult. The Copenhagen Accord recognises explicitly "that the time frame for peaking [emissions] will be longer in developing countries" where "social and economic development and poverty eradication are the first and overriding priorities"^v. Consequently mitigation rates in the UK and other Annex 1 nations will necessarily be much higher and earlier than those of the poorer, 'developing' nations.

Focussing in on the UK, even for an outside chance of avoiding 2°C, emissions from energy must reduce by at least 8% to 10% each year starting from today – and preferably yesterday! In brief, the UK should be delivering in the region of a 40% reduction in total emissions by 2015, 70% by 2020 and over 90% by 2030 (c.f. 1990). Homing in closer still on Greater Manchester it is clearly evident these reduction levels hold for the city region. The "core objectives section" of the region's Climate Strategy (pp21-22) commits Greater Manchester "to

make its contribution to the targets set in the ... UK Low Carbon Transition Plan" emphasising how "*[t]his is the right thing to do as part of the global effort to combat climate change*". The Low Carbon Transition Plan is itself categorical in its framing of climate change around "*must rise no more than 2°C*"⁵ and as such embeds similar commitments to those within the Copenhagen Accord.

Where to from here: economic growth, 2°C mitigation or cognitive dissonance?

A literal reading of the Copenhagen Accord allied with the common refrain of Stern and others that economic growth cannot be reconciled with annual mitigation rates exceeding 2% to 4%, leaves contemporary society facing an uncomfortable dilemma. In 2012, and without attempting to assuage political sensibilities, the choice is stark. Holding to even an outside chance of 2°C cannot be reconciled with economic growth. Further still, without such rates of mitigation, temperature rises of 4°C to 6°C are likely – temperatures the Committee on Climate Change and IEA describe respectively as "*extremely dangerous*" and "*devastating*", and similarly cannot be reconciled with economic growth.

So for the Annex 1 nations, the UK and for Manchester the choice is the same. To begin immediate and deep reductions in emissions at the same time as transitioning towards a steady-state economy. Or to continue with economic growth in the short-term, with "*extremely dangerous*" and "*devastating*" impacts collapsing such growth in the medium term.

Alternatively, we could continue with the eloquent rhetoric of green growth and win-win opportunities; reject integrity, placate our paymasters and embrace cognitive dissonance - but ultimately renege on our responsibilities to both the current and future generations.

ⁱ Van Der Hoeven M: "The current state of affairs is unacceptable...". *Clean Energy Ministerial 3* (2012).

ⁱⁱ Rose M: UPDATE 2-Global CO2 emissions hit record in 2011 led by China-IEA. *Reuters* (2012).

ⁱⁱⁱ United Nations: *United Nations Framework Convention on Climate Change*. FCCC/INFORMAL/84(GE.05-62220 (E) 200705), (1992).

^{iv} Anderson, K., Bows, A., and Mander, S., 2008, From long-term targets to cumulative emission pathways; reframing the climate policy debate, *Energy Policy*, 36, 3714-3722.

^v Anderson, K., and Bows., A., 2011, Beyond dangerous climate change: emission pathways for a new world, *Philosophical Transactions of the Royal Society A*, 369, 20-44, DOI:10.1098/rsta.2010.0290

In Place of Growth

The problem – our problem

Growth of the UK economy^{1*} over the 10 years to 2009 averaged 2.64% p.a. - an economy that *doubles* in size every 26 years². The global economy is almost 5 times the size it was 50 years ago³. It is generally assumed that around 3% GDP growth per annum is healthy for an economy and to keep people employed.

Such growth has an environmental cost. The ecological footprint of the UK is 4.71 hectares per person – that is to say we each depend on that area for our consumables, recreation, to absorb our emissions and so on. But the available 'biocapacity' of the UK provides less than a third of that (1.34 hectares) – a situation of "ecological debt"⁴. As growth increases our ecological debt increases along with that of all the other countries. As the Global Footprint Network puts it:

"Today humanity uses the equivalent of 1.5 planets to provide the resources we use and absorb our waste. This means it now takes the Earth one year and four months to regenerate what we use in a year.

Moderate UN scenarios suggest that if current population and consumption trends continue, by the mid 2030s we will need the equivalent of two Earths to support us. And of course, we only have one.

Turning resources into waste faster than waste can be turned back into resources puts us in global ecological overshoot, depleting the very resources on which human life and biodiversity depend."⁵

At the same time, more than a quarter of children in Manchester⁶ live in severe poverty (the highest rate in the country)⁷. More than one in twenty working age adults is unemployed. This is set to increase. Many of those with jobs are poorly paid, and rely on benefits to make ends meet. Energy and resources prices and the cost of living goes up and up⁸. The Index of Multiple Deprivation, 2010, ranked Manchester as between the second and the eighth most deprived district in England out of 326, depending on the measure used. Forty six percent of the city's areas⁹ were in the most deprived 10% nationally¹⁰.

* Numbered notes provide extensive references for our facts and arguments. They appear at the end of the report.

Manchester then, faces big challenges and a Steady State Manchester will need to rise to this challenge with a clear and robust approach to generating well-being and sufficient prosperity in the city - and keeping it there.

The recession and the options for leaving it.

"Before long the Council's budget position will become a bit irrelevant if we don't do more to tackle climate change and deal with its impact"¹¹

Sir Richard Leese, leader of Manchester City Council

It has become commonplace to criticise the present government's austerity programme as a *Plan A* with no *Plan B*. But we have to question whether a conventional *Plan B* is feasible. Instead a Steady State approach means a *Plan C* to exit the labyrinth of the failed growth model. So....

Plan A, or Fiscal Austerity means more cuts, punishment of the poor, looting of the commons and disregard for the environment.

Plan B, or Phantom Abundance means either grey or green Keynesianism, a back-to-how-it-was before the banking crash, or the coalition's cuts – back to an inherently unstable and unsustainable model.

Plan C, or Ecological Prosperity¹² means a planned approach to a society where we can all live a good life, satisfied with enough, without seeking endless growth and accumulation, respecting the planetary limits: Steady State. Any recovery from the current recession and austerity programme will need to be a Steady State recovery that leaves nobody behind, but that knows what 'enough' means. Taking seriously both the mitigation of climate change (through radically decreasing emissions) and adapting to the climate change that is already gathering, will help this recovery to rebalance the economy.

A Steady State Economy

Definition

A steady state economy is one that is consistent with the following principles.¹³

1. Maintaining the health of ecosystems and the life-support services they provide.

2. Extracting renewable resources (such as fish and timber) at a rate no faster than they can be regenerated.

3. Consuming non-renewable resources (such as fossil fuels and minerals) at a rate no faster than they can be replaced by the discovery of renewable substitutes.

4. Depositing wastes in the environment at a rate no faster than they can be safely assimilated.

A succinct definition is provided in the *Enough is Enough* report (p. 34)¹⁴:

At its simplest, a steady state economy is an economy that aims to maintain a stable level of resource consumption and a stable population. It is an economy where energy and resource use are kept within ecological limits, and where the goal of maximising GDP is replaced by the goal of maximising quality of life.....

A steady state economy is an economy with enough as a goal — it prioritises well-being above consumption, and long-term health above short-term gains. It focuses on innovation and development instead of growth, and it aims for stable throughput of energy and material resources.

A steady state society then is one that aims for genuine human well-being, in harmony with the ecosystems that underpin human life. We are hesitant about providing a definition of well-being but we are confident that there will be broad consensus as to what this means with agreement that it involves good health, fulfilment and the capability necessary for both, in a context of mutual support and solidarity. It does not mean competition and acquisition for the sake of it although pride in achievement and ones personal treasures is not something to disparage. Some measures are presented in a later section, *Defining and measuring well-being and prosperity* p. 28.

Steady State and De-growth

Because our economy is too large (being in “overshoot”), it will need to stabilise at a lower level of resource throughput. That means a period of planned contraction. The term *de-growth* has been promoted by the French writer, Serge Latouche, following Georgescu-Roegen¹⁵ to emphasise the goal of a complete alternative to a growth economy¹⁶.

"We define degrowth as a voluntary transition towards a just, participatory, and ecologically sustainable society...The objectives of degrowth are to meet basic human needs and ensure a high quality of life, while reducing the ecological impact of the global economy to a sustainable level, equitably distributed between nations...Once right-sizing has been achieved through the process of degrowth, the aim should be to maintain a 'steady state economy' with a relatively stable, mildly fluctuating level of consumption".¹⁷

For the economies of the global North then, degrowth is a means to a sustainable Steady State Economy but as Daly and others have emphasised, a Steady State Economy is not the same as a failed growth economy, any more than a bicycle is a motorbike with a broken engine, it will have a different design altogether¹⁸.

More than the economy

A focus on steady state living goes well beyond the economy. Indeed the very approach of ecological economics is a critique of that (dominant) model of economics that separates the economy from society, from the everyday life of people and from the planetary systems that support human life. Conventional economics then tries to cost the impacts of the economy on the ecosystem, rendering that which is not economic into monetary terms. As Latouche and other contemporary thinkers suggest, our approach needs to "leave the economy behind," or "escape from the economy"¹⁹ and focus on making Manchester and the lives of its citizens better. The economic questions and actions emerge from such a political, social and ecological approach rather than dominating it.

The practical policy ideas presented here are ideas for a steady state society and its (steady state) economy. But for those readers yet to be convinced that "steady state" is feasible, we believe that the proposals will still make plenty of sense, as sensible reforms to make society better and to mitigate environmental damage, irrespective of whether they (on their own) will take us along the road to a steady state economy.

Steady State is an idea whose time has come.

It is not just environmentalists and 'simple lifers' who are advocating it. A new economics which proceeds from the question of concrete well-being

rather than the abstraction of growth is not crazy extremist thinking but increasingly mainstream.

Sir Gus O'Donnell, head of the civil service and ex-head of the treasury in the UK – known as GOD in the civil service - said that he **thought within ten years well-being will be the economy's headline indicator**, our well-being will be the fundamental thing we are measuring, and GDP will be a subsidiary indicator.

The World Economic Forums leading companies agree also saying "To get across the message that **we are no longer selling 'stuff'; we are enhancing people's well-being overall.**" Davos 2010 *Redesigning Business Value* report. "Development – **qualitative improvements in people's lives – is more important than narrow definitions of growth** – quantitative increases in the size of an economy or in the scale of its throughputs. **Our economic imperative should be to meet needs rather than create wants.**" Davos 2011 *The Consumption Dilemma* report

'I am convinced that this approach, bringing a well-being lens to strategic and sustainability challenges, is one of the most exciting areas for breakthrough innovation. It can bring a valuable new strategic compass to the journey we are on as a company.' Ian Cheshire, CEO Kingfisher B&Q

"If it turns out to be true that rising incomes have failed to make Americans happier, as much of the recent research suggests, what is the point of working such long hours and risking environmental disaster in order to keep on doubling and redoubling our gross domestic product?" Derek Bok, President, Harvard University

"A sustainable economy is one which achieves and maintains a high level of well-being for all people, now and in the future, that works within the constraints of nature." HRH Prince of Wales' Cambridge Program for Sustainable Leadership

"The time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people's well-being. And **measures of well-being should be put in a context of sustainability**". Stiglitz Commission

"The relevant metric of sustainability is the production of **human well-being per unit of extraction from or imposition upon nature**". IUCN²⁰

"Our collective purpose should be improving people's well-being, so the **time is right for Scotland to shift its emphasis from measuring economic production to measuring people's well-being.**" Recommendations to Scottish Government

"Governments must stop making a fetish of GDP and move on to better measures of prosperity. **Measures of well-being should be put in a context of sustainability**" **Joseph Stiglitz**, Nobel Laureate Economist, and ex Chief Economist to World Bank.

"Member states to pursue the elaboration of additional measures that better capture the importance of the pursuit of happiness and well-being in development with a view to guiding their public policies." UN Resolution 65/309 unanimously adopted by General Assembly in 2011

"A new five-year plan has been adopted at the 2011 National People's Congress hailed as a blueprint for a '**happy China**'. Guangdong province declared it would become '**Happy Guangdong**'. Beijing said it wanted citizens to lead 'happy and glorious lives'."

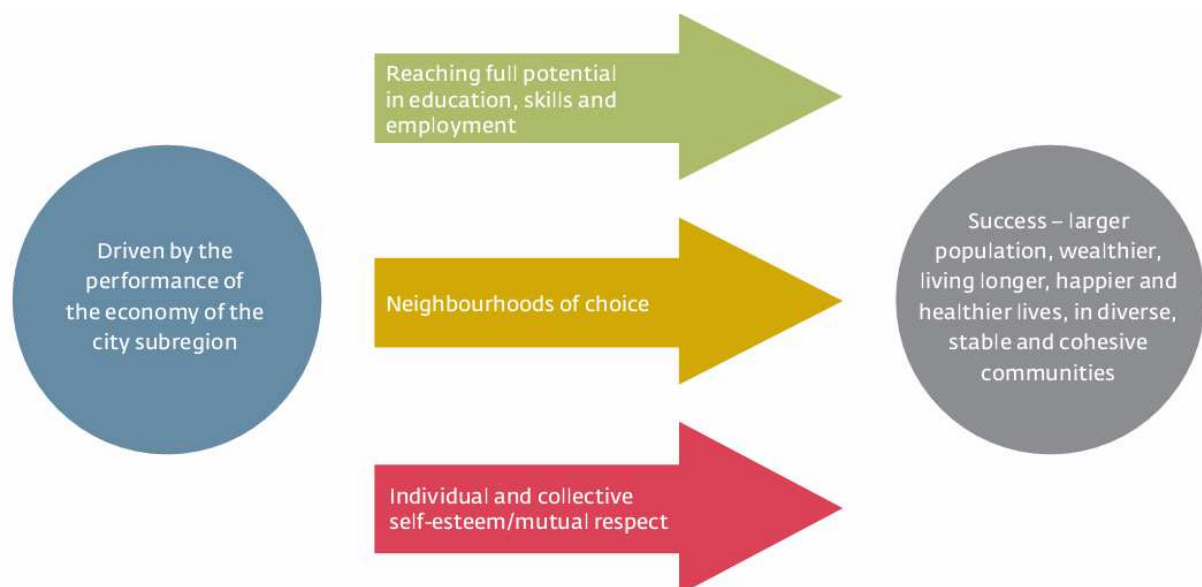
"We can either deal with Climate Change OR have growth but not both"
Professor Kevin Anderson, Tyndall Centre, University of Manchester.

We see an impending collision between an economic system which by its nature, must grow, and a finite resource set which, ultimately, cannot grow." January 2012, Tullett Prebon – one of the world's leading inter-dealer money brokers ²¹

Steady State Manchester in Pictures

Readers might find helpful a graphic representation of what Steady State Manchester means, and to contrast it with the orthodox growth model.

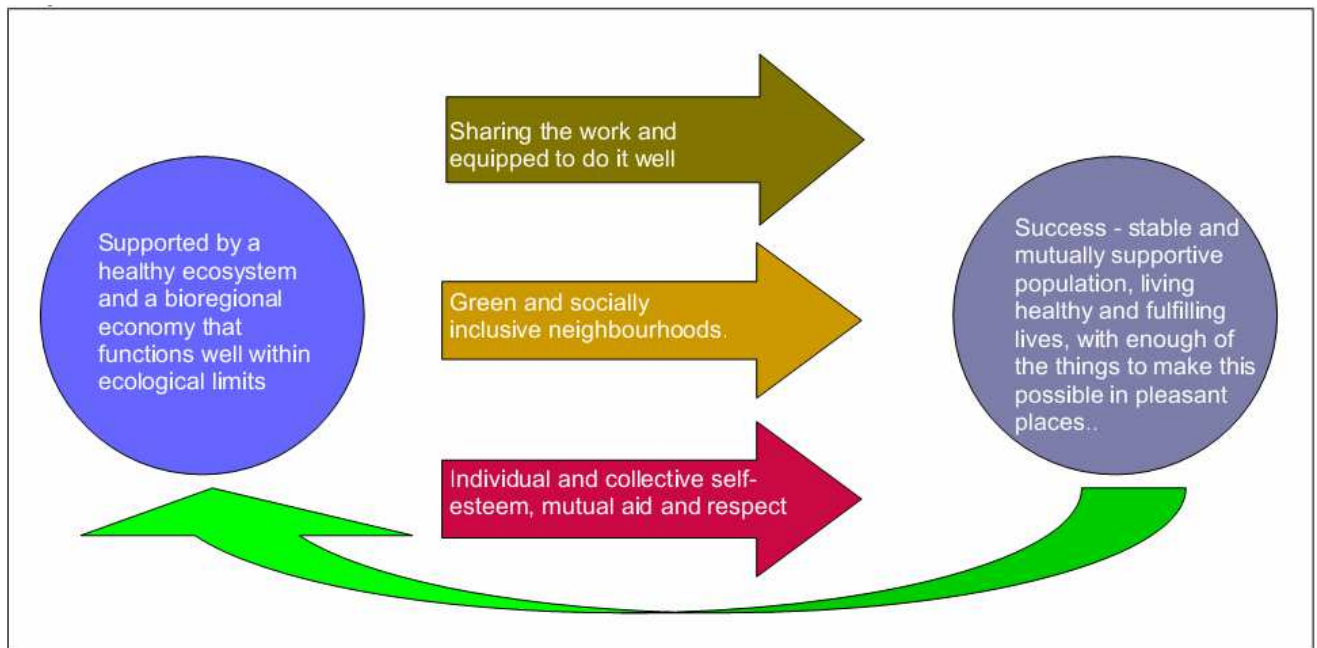
So firstly, this is the model adopted by the Manchester Partnership²².



And here is how it is described:

“The three arrows at the centre of the diagram are the strategy’s core drivers. They take the economic success illustrated on the left of the diagram, and connect it to the better outcomes for Manchester people described on the right. The arrows are called spines because they cut through and support all the actions that need to be taken in order to address Manchester’s priorities. The prerequisite to the spines is to create the conditions for sustainable economic success and growth.”

We suggest a model, that although different in some respects, has some important similarities:



And here is our corresponding description – the bits in *italics* show how we depart from the orthodox model.

“The three arrows at the centre of the diagram are the strategy’s core ***processes and intermediate outcomes. They rest on the foundation the earth’s ecosystems give us, which we nurture, and the locally centred economy of our city and surrounding area - taking*** the economic success ***included*** on the left of the diagram. ***They connect these foundations*** to the better outcomes for Manchester people described on the right. The arrows are called spines because they cut through and support all the actions that need to be taken in order to address Manchester’s priorities. ***The spines help to create the conditions for a society that is worth living in where we all have enough. The curved arrow at the bottom indicates***

the impact of our lifestyles on both ecosystem and economy, and our responsibility to plan, protect and nurture."

Sectors of the economy: selective growth within a steady state.

It is important to understand that a Steady State Manchester does not mean an end to growth in all sectors. Some sectors, for example local food and energy production, need to increase considerably, but by the same token other areas need to decrease. It is the aggregate physical size/growth of the economy that concerns us. The overall effect will be a decrease in the size of the economy but sectors will continue to grow and contract within an aggregate decrease tending to a steady state.

If we look at the ecological footprints of the economies of Manchester, and Greater Manchester, it is relatively straightforward, at a gross level, to identify the sectors that should be targeted for contraction. As we'll see later, this approach needs balancing with the development of a replacement economy that is based on steady state principles. The following data are based on the first estimates of our economy's Total Carbon Footprint²³. That is, it includes those CO₂e²⁴ emissions that are 'outsourced', for example to factories in China, or which take place elsewhere but as a consequence of Manchester's economic activity (e.g. the consequences of mangrove destruction for us to buy cheap prawns in the supermarket). See Table 1.

Together, food and related consumption, personal transportation (including aviation), public services and utilities account for nearly 80% of all emissions. Proposals aimed at reducing CO₂e emissions are likely to include radically increasing the amount of food grown locally and reducing the number of times meat is eaten each week, radically reducing reliance on the private car and beginning to cut into the volume of aviation, using the leverage that the public sector can apply through its procurement, working practices and asset management, and using our collective public and private bargaining power to radically alter the pattern of power production and use. Together they have the promise of really making a big cut in our total CO₂e emissions while protecting local prosperity. Some of these ideas are worked up in this report within the context of moving towards a Steady State society and economy. It is our intention to produce further themed reports covering issues such as food, skills, biodiversity, international

trade and solidarity. We also hope to focus on certain key industrial sectors in subsequent work.

Table 1: Annual Total Carbon Footprint Estimates, 2008.

	Manchester		Greater Manchester	
	tonnes	per cent	tonnes	per cent
Food and drink from retail	974,097	13.65%	5,243,164	12.74%
Household fuel	746,289	10.46%	4,989,076	12.12%
Personal flights	1,082,870	15.18%	4,603,801	11.19%
Other non-food shopping	726,235	10.18%	4,025,839	9.78%
Domestic vehicle fuel	414,332	5.81%	3,467,025	8.43%
Public admin. And other public services	518,160	7.26%	2,985,495	7.25%
Household electricity	495,168	6.94%	2,723,970	6.62%
Eating, drinking and staying away	467,800	6.56%	2,702,071	6.57%
Car manufacture and maintenance	217,303	3.05%	1,997,475	4.85%
Other bought services (inc. financial)	359,844	5.04%	1,995,796	4.85%
Healthcare	279,531	3.92%	1,541,187	3.75%
Construction	241,129	3.38%	1,349,483	3.28%
Water, waste and sewage	203,293	2.85%	1,064,560	2.59%
Travel by train, bus and other	180,796	2.53%	1,039,805	2.53%
Education	108,471	1.52%	758,464	1.84%
Electrical goods	119,354	1.67%	663,994	1.61%
Total	7,134,675	100.00%	41,151,205	100.00%
	food and related	20.21%	19.31%	
	personal transportation	24.03%	24.47%	
	public services	12.70%	12.84%	
	utilities	20.25%	21.33%	
	Subtotal for food, transport, public services and utilities	77.19%	77.95%	
	Other sectors	22.81%	22.05%	
	All sectors	100.00%	100.00%	

Further work is needed on the above emissions analysis.

Firstly, the data on CO₂e emissions need relating to the relative size of the various areas of the economy. For example, while 'personal flights' accounts for 11.19% of Greater Manchester's emissions (and 15.18% of Manchester's), the aviation sector only accounts for 1.3% of the economy (measured by GVA, a local variant of GDP) and this is

growing rapidly (3% in 2011)²⁵. This means that, as we would expect, aviation accounts for a highly disproportionate burden of CO₂e emissions, yet its expansion is a key element in what passes for a regional economic strategy²⁶. A similar analysis needs doing for all the sectors to identify sectors where relative growth, at the expense of other sectors will produce the biggest gains in terms of reduced emissions.

Secondly, year on year targets need defining. For example, within the context of at least a 3.5% per year reduction in CO₂e emissions, ecological footprint and total resource use, across all policies and programmes. a 6% annual reduction in industry centred on the private motor vehicle and an 8% annual increase in insulation retrofitting, and local low energy input vegetable production (among others).

Thirdly, the work on carbon footprints needs extending to other aspects of the ecological footprint.

Objections and responses

Steady State Economics has been met with at least five main objections, both from conventional economists and from those concerned with the welfare of local populations. They are:

- 1. We can't do this unilaterally – we are connected nationally and globally.*
- 2. Growth is required to overcome poverty and a steady state economy might in fact increase it.*
- 3. A steady state economy means a return to the Middle Ages.*
- 4. You can't beat the acquisitive, expansive, ambitious and selfish, consumerist aspects of human nature.*
- 5. We can have sustainable growth, de-coupled from greenhouse gas emissions and environmental impacts.*

These are based on a real issues, all considered in ecological economics research, but none fundamentally undermines the principle of a steady state economy. Each is discussed in detail below.

Objection 1. We can't do this unilaterally – we are connected nationally and globally

Our economies are interconnected and have become much more so in the last three decades as a result of general de-regulation (for example on currency and capital movement) and the increased globalisation of production and consumption. By eschewing economic growth the worry is that we will make the city much more vulnerable, losing the sources of local prosperity. The threat should not be under-estimated. When unplanned contraction of the economy took place in the Soviet Union following the counter-revolution two decades ago, male life expectancy plummeted by 10 years. However, unplanned negative growth is not what Steady State Manchester is proposing.

But the connectedness of our economy with the global economy is itself part of the problem we need to confront. Whether from the perspective of global sustainability or that of local resilience, security and sovereignty, it is not feasible, not realistic, to continue importing so much food from the other side of the world. It is not realistic to continue buying as many consumer goods made in a factory (for example) in Mexico with parts from Korea, Taiwan, Indonesia and Haiti. It is not realistic to send mixed recycling waste to China for separating and re-manufacturing²⁷. Not only will peak oil (in perhaps the next 10 years) make the costs of this impossible but the emissions generated are destabilising the global climate and quite likely (if they lead to runaway global warming²⁸) to end up destroying the basis for human life. Do we really think this can go on? Do we care so little for the future of our children and grandchildren? What exactly is unrealistic about a steady state economy?

Advocates of the growth model emphasise 'competitive advantage' and the language of competition is used to promote what Manchester has to offer. But what are we saying here? We can't all be winners - do we really mean 'to hell with the rest of you' so long as Manchester prospers. That would be a phantom prosperity: while we want to re-localise things this is based on our sense of responsibility to all of humanity, emphasising co-operation rather than competition.

So to move to a realistic, feasible, sustainable economy we have to disconnect, to de-link in relative terms²⁹ from the global economy in a planned fashion. We have to re-localise our economy, using the principle of subsidiarity³⁰ to strategically decide what we need to import and export and what can be sourced locally and regionally. This localisation will not be total but relative and rather than being subject to the anarchy of the market it will be based on democratic decisions about our priorities and how to fulfil them. Manchester City region's

increased economic autonomy will be one helpful tool in moving to this new realism as will be campaigning by the city and its citizens for global climate and social justice (see *Influencing our context: an agenda for national and international lobbying and campaigning p. 51*).

A steady state economy can accommodate a small amount of trade (import and export) across its boundaries, for example to maintain trade with fair trade partners where there is a mutually beneficial and socially just trading arrangement. Within our selective imports there will be the importation of luxuries from far away. But the scale of this will be quite different. Rather than consuming the proceeds of habitat destruction (prawns or maize fed beef and chicken) and livelihood destruction (cash crops that drive out subsistence economies and ecosystem stewardship), we will be using limited amounts of high quality drinking coffee from forest farming systems, fairly traded chocolate and Windward Island bananas grown on small farms rather than latifundios and plantations run by transnational capital. But the overall level of such consumption will be several orders of magnitude smaller. ***That's realistic.***

Objection 2. Growth is required to overcome poverty and a steady state economy might in fact increase it.

Economic growth has a practical appeal as a response to social ills. Where the cake is growing it seems not to matter if people's shares are unequal, so long as they are all growing. Yet this is illusory on two counts. Firstly, there is evidence (collated by NEF among others) that since the mid 1970s economic growth has not been associated with rises in life-satisfaction³¹. Secondly, this model of an increasing but unequally shared cake is flawed as a recipe for societal well-being: there is persuasive evidence that more unequal societies have a greater level of social ills, not just for the poor but for all strata³². Moreover, an unequally divided cake that grows means an accentuation of the inequalities in absolute terms (as we have seen over recent years in the UK, despite anti-poverty policies). Flawed it may be but this supposed practical root of the growth fetish has an extraordinary appeal – maybe because it seems to postpone or even avoid the need for more profound, and difficult, social reform.

Writing in 2012, we can confidently say that equality is no longer a dirty word: the social pathology that results from inequality is well understood. Trickle-down development does not work. Now is the time for redistribution. The New Economics Foundation's *Growth Isn't*

*Working*³³ report shows that for every £100 extra global growth only £0.60 trickles down to the poorest – most goes to the already wealthy whilst its effects hit those very poorest hardest through climate change etc

Simulations of a steady state economy by Canadian economist Peter Victor do indicate that increased poverty need not be a consequence³⁴. Indeed it is the business as usual economy that leads to increased levels of inequality, with poverty and increased unemployment at the bottom end. Tim Jackson and Peter Victor, along with the New Economics Foundation are currently conducting further macro-economic modelling of a steady state economy³⁵. All show we can have no growth *and* deliver well-being. Jackson's early work shows that to do this we need a 5% increase in green infrastructure annually, a 2% reduction in working hrs, each year and a 6% increase in the 'Cinderella economy' of co-ops, mutuals etc., a theme we pick up later in our section on the Replacement Economy p. 37.

Objection 3. A steady state economy means a return to the Middle Ages.

Steady State does not mean a return to the drudgery, privation and suffering of a former epoch. At least it doesn't have to. A steady state economy is a planned economy. We choose how to live, rather than being subject to unending accumulation. We use ecological design principles to reduce the need for labour. We use clean and green technology. We continue to benefit from the many discoveries of science. But we do this without endless expansion of economic activity, deciding democratically and ecologically what 'enough' means. This is the vision of appropriate technology, of ecological design, of a just and safe society and economy. It is progress, not a return to the Stone Age. Nevertheless, some things have been lost from earlier social and economic arrangements, including some of the elements of subsistence. Within living memory it was far more common to raise chickens, grow most of your own vegetables, mend clothes, make jam, and go blackberrying. Common values of stewardship of our shared resources have been eroded with the phantom abundance of cheap clothes or year round strawberries. For much of the world's population, even in big cities, though, elements of a subsistence economy are still an important part of life, a source of resilience and well-being³⁶.

Objection 4. You can't beat the acquisitive, expansive, ambitious and selfish, consumerist aspects of human nature.

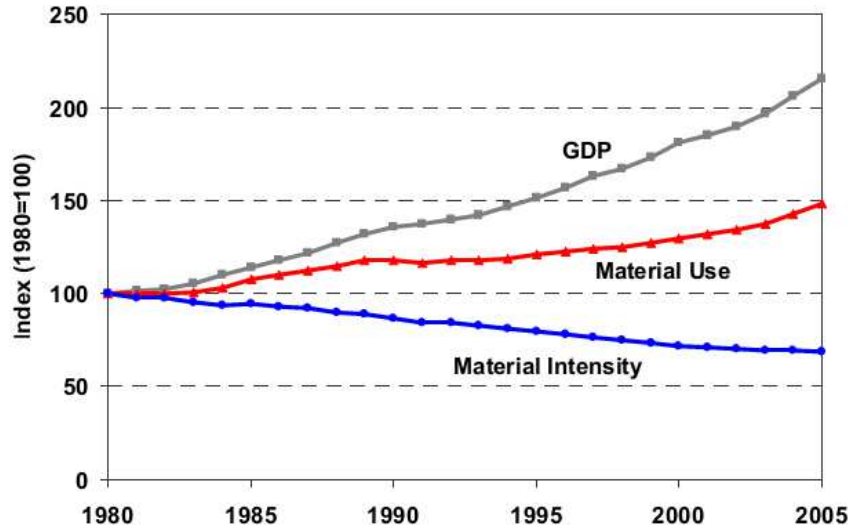
This objection suggests that the endless growth of our economy is a result of human nature rather than the characteristics of a malign social and economic system that has developed. While such a system cannot exist without some basis in the way human beings think, feel and act, we have no reason to think that human society must always be based on the so called 'law of the jungle'. We know that human societies have always been as much based on co-operation, solidarity, sharing, mutuality as on competition. Indeed these are very much "Manchester values". People are complex things, capable of great good and great evil. A democratically planned economy and society aims to encourage the good and minimise the bad, so protecting people and planet.

But there is a need to counter the tendency to magnify the acquisitive tendency of human beings that our current system exploits. Our section "***Reducing consumption and strengthening community***", (p. 39), explores this theme.

Objection 5. We can have sustainable growth, de-coupled from greenhouse gas emissions and environmental impacts.

It has been assumed³⁷ that it is possible to 'have our cake and eat it', that is to de-couple the throughput of resources (extraction and use of raw material inputs and polluting emission outputs) from the growth of the economy. This de-coupling is also known as 'dematerialisation'. The key thing about de-coupling is that both scale and intensity need to reduce to halt or reverse overall throughput and pollution. Currently we are only managing some reductions in intensity but scale increases are far outstripping that. This difference between scale and intensity is key. The best any of even the very richest economies has managed 1990-2007 is 0.9% pa intensity reductions. This shows the scale of the task.

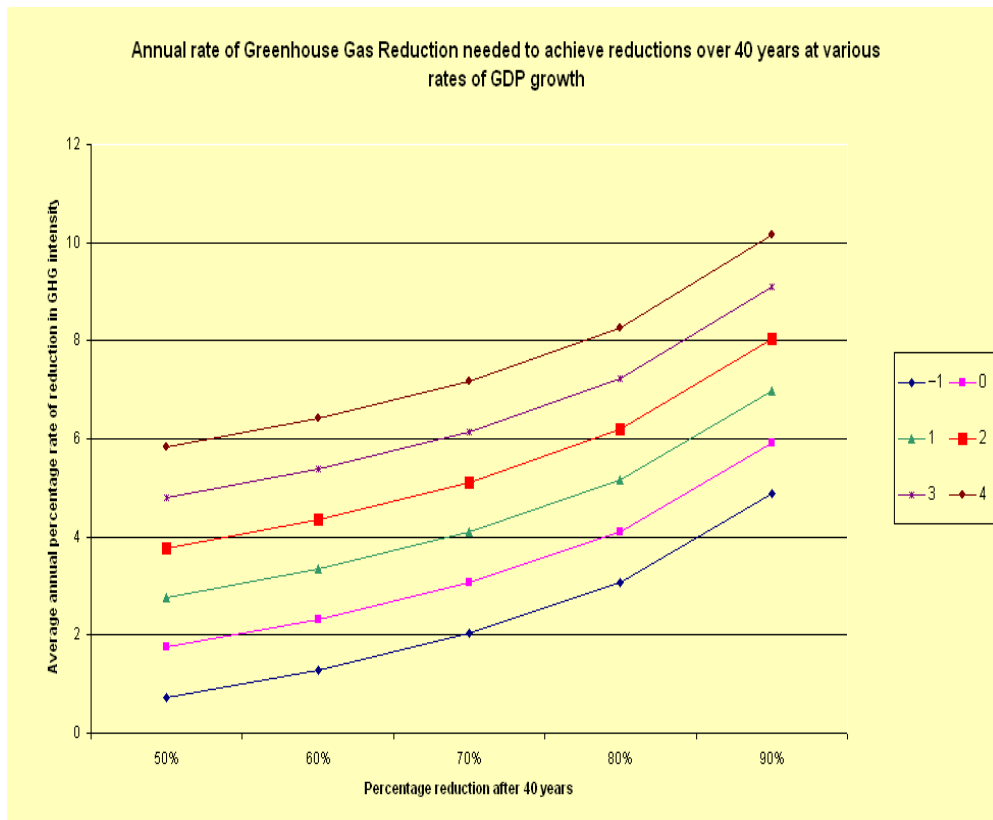
The problem with the dematerialisation hypothesis is illustrated clearly by the following graphs. The first appears in the *CASSE Enough is Enough* report³⁸. It shows how, although the intensity of use of materials³⁹ has slowed, this has not been enough to keep amounts of material usage at the starting level. And this is already in a context where we are consuming well above a safe and sustainable level⁴⁰.



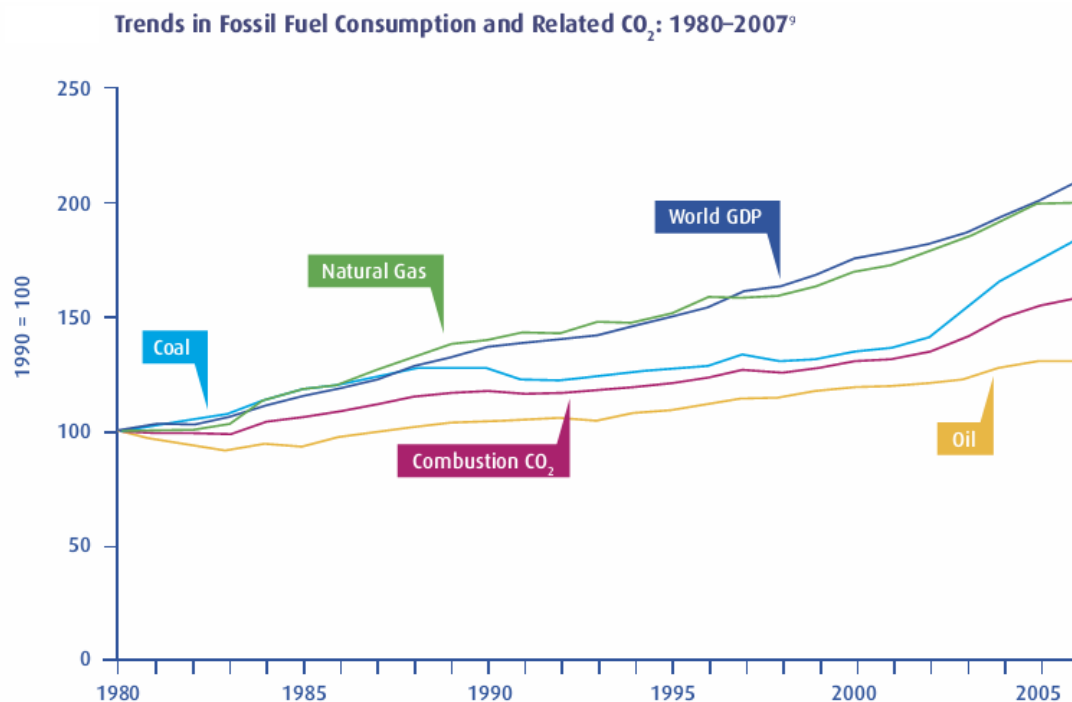
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Figure 2.5: Global material intensity has not decreased fast enough to keep up with rising GDP. Source: see note 11.

The second is based on data presented by Victor (2011)⁴¹. It shows the annual levels of greenhouse gas reductions required to achieve given gross reductions after (an extremely generous) period of 40 years at given rates of economic growth. This graphically illustrates how for each 1 per cent of annual economic growth the challenge is significantly increased.



A third graph is reproduced from the report of the last UK government's Sustainable Development Commission, entitled *Prosperity Without Growth*. In a chapter that reviews the prospects for de-coupling or de-materialising the economy they show the actual trends achieved over a 27 year period. Everything goes up in absolute terms, although they also show some degree of relative de-coupling over the same period.



This report and another substantial review of the literature on the prospects for dematerialisation of the economy⁴² independently conclude that, to date, there is only evidence for relative dematerialisation: for practical purposes this seems to indicate that so long as there is GDP growth, emissions levels will continue to increase (short of the discovery of some magical technological fix, such as a machine to take greenhouse gases out of the atmosphere). Moreover, even the relative reductions may be no more than temporary.

The conclusion is clear. **Sustainable economic growth is a dangerous myth. Those who pursue it are guilty of at best delusion and at worst** (because it is destruction of our life support systems that is the end point of a growth economy) **complicity in genocide**. This may sound a bit strident but the stakes are now this high as we teeter on the edge of irreversible climate change with strong positive feedback effects, while also reaching other planetary limits.

A Safe Operating Zone: society, economy, planet

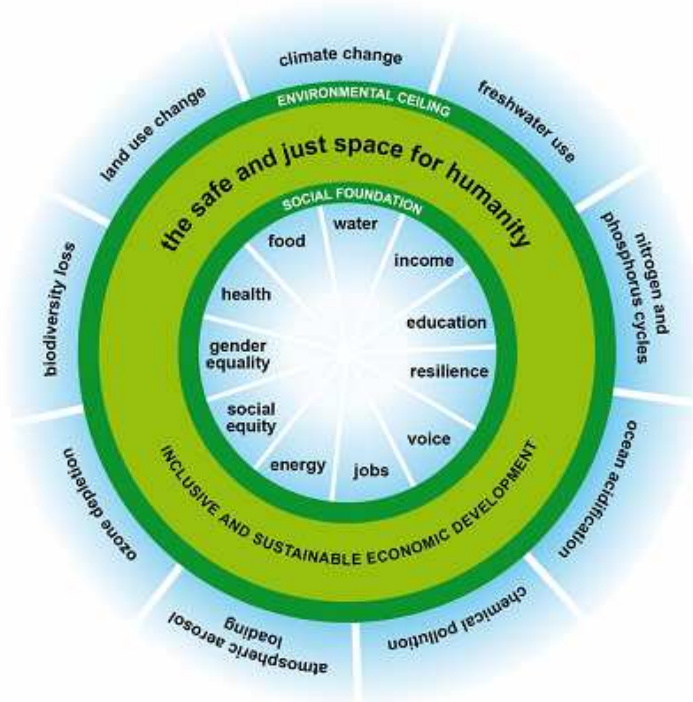
It may help to think in terms of a “Safe Operating Zone” for humanity. We need to align two aims:

- Ensuring an adequate level of well-being for all and
- Living within the limits of the earth’s ecosystems.

The World Wildlife Fund, Living Planet report⁴³ illustrated how (in 2008⁴⁴) every country but one either failed to deliver an adequate level of well-being for its population (as measured by the UN Human Development Index) OR they did, but were also living beyond the means of the planet (as measured by the global footprint measure). Some countries failed on both counts. The data they presented also showed the diminishing returns from such ecological extravagance in terms of benefit to the population.

Earlier this year, another helpful formulation of the problem was presented in an Oxfam discussion paper⁴⁵. This used the concept of planetary boundaries⁴⁶ for the ecological limits and identified a number of basic measures of population well-being that together set a minimum standard for societies to meet. Between these two sets of upper and lower limits there is a ‘safe and just space’ for us to live, depicted in the graphics of the report as a doughnut shaped space.

We advocate applying similar thinking locally to set safe upper and just lower limits for the city to work within. This will require some work: the Oxfam basic measures are set in the context of development in the global South so will require some rewriting for our own context, although as they stand they do provide some healthy perspective on what we should be aspiring to in the epoch of ecological austerity. Measures of well-being that are less abstract than the HDI used by WWF and Oxfam would be more meaningful and sensitive in our context



Source: Oxfam. The 11 dimensions of the social foundation are illustrative and are based on governments' priorities for Rio+20. The nine dimensions of the environmental ceiling are based on the planetary boundaries set out by Rockström et al (2009b)

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If nothing else, the idea of a safe operating zone reminds us of the need to keep our eye on two sets of compatible objectives: social justice and ecological justice – which, through its relevance to future generations, itself extends the idea of social justice.

Aspects of Steady State: Practical Policies and Proposals for a Steady State Manchester

Manchester innovates. Innovation is its lifeblood, almost the definition of what Manchester means. Manchester has the opportunity to promote something new and distinctive, to pilot a different yet distinctly Mancunian approach taking the first steps to a Steady State society and economy. The following sections outline practical policies and actions for a Steady State Manchester – big steps towards the city and its region being a place that guarantees its people comfort, purpose and well-being without using ever more resources, without making the earth an unsafe place to live on and without doing so at the expense of other people. This is not meant as a blueprint or a plan that has to be followed in every respect; the ideas need to be developed further, added to, refined and tested. But we do believe

that what we outline here makes Steady State take on a practical and concrete form. From the following it is possible to understand what Steady State means for the people of Manchester and to deal once and for all with the myth that Steady State is not realistic or is only for greenies.

If put into place, our proposals would:

-  Improve the fairness of distribution of wealth and income.
-  Re-localise much food and other production in and near to the city.
-  Improve our control over savings and investment, while investing in local green and ethical enterprises.
-  Reduce unnecessary consumption and help grow a new culture of solidarity and participation.
-  Reduce our exploitation of the majority world while keeping open channels for communication and learning globally. This will be the subject of a further report on practical international solidarity.

Redistribution

We have already touched on the importance of making our society less unequal, an idea that is at the heart of what Manchester's progressive traditions have always been about. In the absence of growth the need for greater equality is highlighted since inequalities are no longer masked by a growing cake. And we have seen, from the now well known work of Wilkinson and Pickett⁴⁷, that greater equality brings with it a host of benefits in terms of health, justice and well being.

There are things that can be done to increase income equality here in Manchester. Manchester City Council has already made a good start by becoming the first council to set its own minimum wage, which is pegged above the national statutory minimum wage⁴⁸. This and suggestions below can also be termed "pre-distribution" to distinguish them from taxation-based redistribution. As has been pointed out⁴⁹ they have the advantage of not relying on tax measures that could be reversed through change of political administration.

Elsewhere in this report (*Defining and measuring well-being and prosperity*, p. 28) we suggest that alternative measures of economic health should include a measure of inequality/equality. We can and should go further by **publishing data on wage differentials in the**

workforces of local employers. This could be through computing a firm-specific measure of inequality - for example the gini coefficient or coefficient of variation, or simply the ratio of the top to bottom salary in the organisation. Let's do that anyway for public sector employers and also get to the situation where private employers who do not share this data are seen to be hiding something unpleasant!

Because greater equality will be facilitated by a fairer distribution of the available work, at the same time preventing growth in unemployment, we should also **promote an initiative to combat the long hours culture in many of our employing organisations** (including sections of the city council). This links closely to improving the work-life balance and to family friendly employment policies, themselves important aspects of living a better life, if not a (financially) richer one. More concretely, organisations could sign up to voluntary caps on working time - more stringent than the EU Working Time Directive (WTD). And we could link this to **a city sponsored initiative on salary deflation at the higher echelons** which would help pay for the marginal employers' costs of more workers for the same hours. Let's consider **a 10 out, 12 in policy for jobs**, linked to employer-based measures of income inequality discussed above. Trade unions are likely to support this, in conjunction with campaigns to end or at least discourage use of the WTD waiver (opt out).

Localisation

To meet the twin challenges of planetary limits and accelerating resource scarcity, we need to look at a strategy for re-localisation of the economy. This means arranging production, distribution, ownership of means of production/assets, trade and enterprise so that much more of the economy is localised within the city, and the surrounding bioregion.

"Because of the imperatives of reducing energy expenditure and (re)generating a real local economy it is at the regional level that transformative green strategies can make the most sense. It is unsustainable to import our food and our sources of wealth from outside the region. Some needs will have to be met from imports and trade but a principle of subsidiarity needs to be applied – only bring in those things that are both necessary and cannot be sourced or made locally. Yet it is difficult to see how most needs could be met within a small local area. It may therefore make most sense to think of the region as a "bioregion" – for example

*the area of the Mersey watershed, wherein there is potentially sufficient diversity of ecologies and natural resources – which will in turn have to be safeguarded and repaired to secure the sustenance for human settlement.*⁵⁰

When we replace reliance on imported food with reliance on locally grown food we need to make sure that we are not simply substituting one set of risks to food security (long oil-dependent supply chains from climate-change-sensitive regions) with another set of risks (dependence on local climatic conditions, impact of local crop failures etc.) so there does need to be a sensibly planned approach to risk mitigation. As we suggest in the section on building the replacement economy, there will be a need for a greater storage capacity for food staples to even out variations in supply, hence creating resilience.

This does not mean an end to imports (or exports), but a re-balancing of them. To reiterate, we are likely to continue importing some things (we owe a debt to countries we've exploited in the majority world and do not want to cut them adrift), but in smaller quantities, under fair trade conditions and from small producers rather than the big multinationals. The priority would be for sustainably produced food that comes by sea (air freight is a real no-no for food).

There is a long tradition of rethinking the balance between the urban and the rural. The Garden Cities movement of the early years of the 20th Century, for example tried to break down those barriers, affording a more rural style of life to urbanites⁵¹. Some more recent local initiatives, for example the Urbal project in Leeds⁵², explicitly try to "internalise the economy within the city". The impacts of doing this will be felt in the massive reduction of transport emissions, the creation of local jobs and the restoration of meaning to our everyday life. It will also increase the resilience of the city's population to global shocks, for example the impacts of climate change and oil prices on food availability. Such a nesting of the economy within the wider ecosystem locally is also consistent with the understanding from ecological economics that the economy does not sit outside the ecosystem (as in orthodox mainstream economics) but has it as its context. This could be consistent with the idea of more compact cities having greater resilience.⁵³

Trafford Park

In the context of Manchester, a more localised and greener economy would draw on the existing strengths of the city region: that former deer park, Trafford Park, the largest industrial estate in the North West and the first planned industrial estate in the world, is a key resource for a steady state economy. History suggests a future scenario. During the 1939-1945 war the urgent needs of the situation meant a transformation of the park with most of the factories having potential to quickly be turned to war use. Employment in Trafford Park rose from 50,000 to 75,000. A similar transformation to a green production estate focussed on needs could be the future. As announced in March this year⁵⁴, Trafford Park is one of only eight locations nationally chosen as *Business Neighbourhood Frontrunners*, pilot areas to develop *business led neighbourhood plans*. These will see the business community having greater involvement in preparing plans and defining types of developments within the business area, guided and supported by the council. So far this has been seen as an opportunity for conventional economic growth, but the same model of partnership could support an economic strategy characterised by selective growth of green production (for example in the renewable energy and public transport sectors), closed loop / integrated supply chain and waste management systems and use of the considerable open space to supply amenity and ecosystem services. As yet it appears that the *business led neighbourhood plan* is in its initial stages so the opportunity is there. And as the minister said: "*Business Neighbourhood Frontrunners are about residents and businesses shaping their neighbourhood together.*"

The aim of re-localisation needs to be broken down into practical objectives and programmes of change. Here are some examples:-

1. A lot of work is required to **investigate and shorten the supply chains for our foodstuffs and other necessities of life**. At present, for example, it is possible to buy a sandwich made in a different part of the country at huge cost in terms of emissions, but such madness is counted as part of GDP and conventionally seen as good. For some shocking examples see the *NEF Interdependence Report*⁵⁵.
2. **Reduce Manchester's dependence on Imported Food**. More food needs to be produced within the city and in the surrounding countryside. Again there are precedents for this, for example during wartime in the UK and in Cuba during the Special Period:

in both cases vacant land was brought into local production, both formally and informally organised with measurable positive consequences for population health and resilience. One way to kick start such a process would be for citizens supported by the council to **establish food gardens on public land**. While the stock of public land has reduced in recent years, there is still plenty, much of it down to grass and therefore needing significant fossil hydrocarbon inputs to maintain it. It is important to ensure that local production is less materially intensive than imports though - so unless heated by renewable energy hothouses would be out and production needs to cycle nutrients and minimise tillage emissions, for example.

While at present there is some evidence that food processing has a greater ecological impact than transportation, this is not the only criterion to consider: de-linking from the commodification and financialisation of food is also critical as is building local resilience by restoring regional food sovereignty.

3. This ties in with current initiatives to **Increase our Energy Self-Sufficiency, based on renewables**. Current Manchester initiatives on deep geothermal power, the increase in deployment of solar panels, for example are good examples. Manchester's history of producing its own gas and electricity (although in those days from fossil carbon) gives further evidence that such a strategy has been deployed before and is feasible although it needs linking to an assertive strategy to radically reduce the amount of power used⁵⁶ - to avoid rebound effects. Rebound effects, also known as the *Jevons paradox* mean that increases in efficiency (which includes 'free' energy) do not produce reductions in resource use, but typically stimulate further resource consumption⁵⁷.
4. Promote the idea of Re-use/Repair/Renew/Replace - and Share. For example, **Establish repair workshops** and **Promote sharing schemes for domestic and business durables**. Initiatives of this sort have multiple effects: building skills, reducing energy intensity of consumption, mitigating poverty, restoring and building community solidarity. Data could also be published on the life-span of so called consumer durables - Manchester-based Ethical Consumer and/or Trading Standards could develop such a programme.
5. Consider options for **local re-industrialisation**. In the UK, manufacturing is now at a very low level and the consequence of

this is that the vast majority of manufactured goods have to be imported. In addition to the ecological shipping costs of this (exacerbated by the practice of manufacturing components in various countries and then assembling them in another prior to re-exporting them), it leaves our economy very vulnerable. The recent bursting of the financialised asset bubble has exposed the weakness of having outsourced manufacturing to such an extent: it is not feasible to rely on services as the foundation of an economy and society.

Nevertheless, it is not an easy matter to rebuild manufacturing. This needs to be a selective process, based on principles of trade subsidiarity⁵⁸ (manufacturing what can be made locally) emphasising extreme efficiency in resource use, and making durable products. This would seem to imply a mixture of artisan workshops and small factories and processing plants (including those for local food production) as well as higher technologies building on Manchester's 'knowledge assets'. This cannot be achieved overnight but the first steps can be taken towards a partial re-industrialisation, in harmony with the local ecosystem and wider bio-region⁵⁹.

6. Further proposals for re-localising the economy can be found in the section on Debt and Ecological Austerity.

Re-localisation is also about increased local autonomy, about Manchester deciding on its own affairs. The formation of the City Region was one step in this direction⁶⁰. Re-localisation helps reduce our dependency on national initiatives for innovation and development, reducing the risk of national priorities changing and leaving us high and dry.

Defining and measuring well-being and prosperity

A lot of work has been done in various quarters on alternatives to GDP as a measure of the health of a society and its economy⁶¹. **We propose that in Manchester there is agreement to use an assortment of measures** that reflect:

1 The proportion of money that is retained in the local economy.

We suggest use in the first instance of the New Economics Foundation LM3 tool which measures the local multiplier effect of money that is recirculated locally rather than seeping out of the local economy⁶².

2 The degree of income inequality in the city and in its various sectors.

There are various measures available⁶³. Table 2 shows the levels of inequality in authorities in the North West as measured by the gini coefficient (where a lower number is better). An alternative is to produce data on the size of population income deciles (i.e. the proportions of people receiving differing levels of income). A common measure is to compare incomes of the top fifth with those of the bottom fifth.

Data on income inequality should be supplemented by data on levels of personal and household debt (see section on *debt and ecological austerity*).

Table 2: Levels of inequality in North West England.

Local Authority	Mean income	Mean income band	% with income below £15k	gini coefficient (high=less equal)
Macclesfield	43,251	£35k-40k	14.94	37.5
Trafford	39,548	£30k-35k	17.16	37.5
Stockport	37,709	£30k-35k	18.66	37.6
High Peak	36,406	£25k-30k	19.89	37.9
Tameside	32,324	£25k-30k	24.19	38
Chorley	38,130	£30k-35k	18.9	38.1
West Lancashire	35,208	£25k-30k	21.29	38.1
Bury	35,748	£25k-30k	21.05	38.3
Kirklees	33,592	£25k-30k	23.46	38.6
Calderdale	33,329	£25k-30k	23.79	38.6
Rossendale	33,676	£25k-30k	23.52	38.7
Warrington	38,492	£30k-35k	19.27	38.8
Wigan	32,789	£25k-30k	24.54	38.8
Manchester	29,278	£20k-25k	29.01	38.9
St. Helens	32,331	£25k-30k	25.41	39.1
Oldham	31,680	£25k-30k	26.3	39.1
Salford	31,343	£20k-25k	26.54	39.1
Rochdale	31,413	£20k-25k	26.6	39.1
Bolton	32,918	£25k-30k	24.98	39.3
Blackburn	30,170	£20k-25k	28.78	39.7

3 The unemployment rate

Some existing measures are available and meaningful. It will be important to monitor the effectiveness of steady state policies in promoting employment, especially given some scepticism that they can do this. The overall rate in August 2012 was 5.8%⁶⁴.

4 The level of well-being as experienced by citizens.

A number of measures have been proposed, and these are in turn dependent on the way in which human need is understood⁶⁵. We caution against using measures that are solely 'hedonic', i.e. those that attempt to measure 'happiness' rather than 'eudaimonic' measures that focus on fulfilment since this is closer to a conception of a society that includes its members actively in meaningful and fulfilling lives whereas a hedonic conception is more compatible with current passive consumerist conceptions⁶⁶. Having said this there is a correlation between the two.

Box

Household well-being survey – not so good in Manchester.

"The proportion of people rating their life satisfaction as low or very low was 29.1 per cent in Blackpool, 28.9 per cent in Blackburn with Darwen, followed by 27.2 per cent both in Greater Manchester and Merseyside Met County.

This is in contrast with Cheshire East, where only 18.8 per cent of people rated their life satisfaction as low or very low (indicating higher life satisfaction), and Cumbria and Warrington where 20.9 per cent of people rated their life satisfaction as low or very low. The average rating for life satisfaction was 7.1 in Blackburn with Darwen and Blackpool, compared with 7.7 in Cumbria and 7.6 in Cheshire East.

A similar pattern was observed for the 'worthwhile' question, with 24.4 per cent of people in Blackpool, 24.3 per cent in Blackburn with Darwen, 22.8 per cent in Great Manchester, and 21.0 per cent in Merseyside Met County giving a low or very low rating. By contrast, only 14.2 per cent of people in Warrington, 16.6 per cent in Cheshire East and 17.6 per cent in Cumbria gave a low or very low rating to the 'worthwhile' question.

In Blackpool, 36.6 per cent of people gave a low rating to the 'happy yesterday' question compared to 24.5 per cent in Cheshire East. The highest proportion of people giving a high or very high rating to the 'anxious yesterday' question was in Greater Manchester (43.1 per cent), whilst the lowest proportion was reported in Cheshire East (36.3 per cent)."⁶⁷

Various local authorities are already conducting work on the measurement of well-being⁶⁸.

5 The total carbon footprint of the city and its sectors.

Again the groundwork has already been done on this and the initial data are presented above p.10⁶⁹. It may be worth adding some other related measures (some of which are available already), such as material use, energy use, ecological footprint (see note 4), waste production and the proportion of it recycled locally⁷⁰.

These measures could be tracked to measure the health of the environment, society and its economy and to determine corrective actions that need to be taken⁷¹. But measures on their own have little effect. To create a culture where they begin to determine our actions we urge the **wide publication of reports summarising a 'dashboard of the city's social, economic and ecological health'** (building on the *State of the City* reports⁷²) so that there can be the **widest possible, and growing, public understanding and participation in strategies to secure more of this 'genuine prosperity' for us all.**

Debt, money and ecological austerity

There is a crisis of confidence in banking while our population suffers unprecedented levels of debt which in itself fuels growth in resource use and pollution. Real wages have declined in most Western developed economies since the mid 1970s⁷³. Despite this, consumption has increased considerably. This has been partly a result of the reducing production costs, in large part through outsourcing to lower wage economies and partly due to the significant increase in the availability of credit, leading to rocketing personal and household debt. These levels are continuing to increase in the recession.

*"In the UK, the value of wages has declined from nearly 65% of GDP in the mid-1970s to 55% today. Over the same period, the rate of corporate profit has increased from 13% to 21%. It is no coincidence that in this period trade union rights were severely restricted, large swathes of the economy privatised, markets deregulated and corporation tax slashed."*⁷⁴

"Total UK personal debt at the end of July 2011 stood at £1,451bn. The twelve-month growth rate increased 0.1 percentage points to 0.9%. Individuals currently owe nearly as much as the entire country produced between Q2 2010 and Q1 2011. Average household debt in the UK is ~ £8,055 (excluding mortgages). This figure increases to £15,491 if the average is based on the number of households who actually have

*some form of unsecured loan. Average household debt in the UK is ~ £55,814 (including mortgages)."*⁷⁵



An annual percentage rate of interest of 319%, and payday loan rates can be much higher: *“Some of the better known payday loan companies charge interest rates of over 2,500% APR”*⁷⁶

*“[In 2010], 2352 people in Manchester took out some form of insolvency solution, either with an Individual Voluntary Arrangement (IVA), Bankruptcy or Debt Relief Order, an increase of 9.4% on 2009. Manchester featured 6th in the UK league table for the year, and showed the largest increase within the top 20 towns/cities for insolvencies in the year.”*⁷⁷

At the same time there has been an increase in “asset-based securitisation” as a means of providing credit⁷⁸. In other words the manufacture and sale of debt has become a source of corporate profit, in turn fuelling the party of consumption. The money lent has not been based on deposits but has been created by the financial sector, and we have seen the consequences of this once the economy receives shocks (in this case the 2008 oil price rise) that mean continual growth is no longer there to pay back the debt. A pool of serial debtors has been created and they will become more vulnerable to chronic indebtedness and poverty as incomes decrease further in the continuing recession.

But if the population has been ‘living beyond its means’ in straightforward economic housekeeping terms, of greater concern has

been the ecological consequences. We have been living beyond our ecological means, a tragic situation whereby we have destroyed ecosystems and whole ways of life for the sake of trinkets. As Dennis Meadows points out⁷⁹, "...the prevailing financial system is incompatible with sustainability in five ways:

- it causes boom and bust cycles in the economy
- it produces short-term thinking
- it requires unending growth
- it concentrates wealth
- it destroys social capital"

So if conventional economic growth is not the solution, what might be the way out of this situation?

We propose some local initiatives that will help ameliorate the local situation while also showing the way to larger scale reforms that need to be campaigned for by Mancunians, their organisations and representatives. They reflect current thinking on the linkages between the financial system and the unsustainable economy⁸⁰.

1 Promote alternatives to financialised credit (i.e. to those based on the creation of money as debt): mutuals⁸¹, credit unions⁸², loan stock, non-growth but interest-bearing savings, municipal bonds (see next section). This approach has a number of advantages:

By avoiding the promotion and creation of debt, it takes local money out of the growth economy. To the extent that these options are locally based it helps keep money local. It provides just alternatives to rack-rate credit - building financial resilience for the poor and a safe home for savers' money.

It can finance local non-capital-accumulating (right-sized profits) enterprise.

We believe that initiatives such as these will be very popular, connecting with widespread concern about current banking models, pay-day loans etc. There are various precedents, including the municipal banks of the early C20th in the UK, or the Brazilian Community Banking movement⁸³.

2 Clean up our investments. Transfer council and other public sector assets, pension funds and reserves from equities (stocks and shares) to not-for-profit options. This would take a significant chunk of capital out of the growth-for-growth's-sake economy. It also facilitates

civic resilience: such investments are already proving to be safer than equities in times of stagnation and crisis.

This approach builds on the ethical investment movement, promoted by bodies such as Manchester-based Co-operative Bank.

Eco-ethical criteria for investment

Overarching question: "Where should the council and other public bodies invest their reserves / (it's our money)?"

1. Local mutuals / co-ops
2. Sustainable land use
3. Non-financialised, non speculative funds
4. Selective growth areas (the replacement economy sectors)
5. Not for profit firms
6. Loan-stock

Note - there may not be enough options at present for all the money but this can be a rolling programme.

Just as in conventional investment portfolios there would be a balanced mix of risk levels: some desirable developments would be considered relatively high risk, but the overall portfolio would balance this.

3 Provide alternative savings vehicles that also support sustainable developments and community services and amenities locally.

An example could be Municipal Green Investment Bonds (a **Manchester Bond**) issued by the council, or perhaps a body established through the City Region arrangements – allowing the combination of government funding, local government funding and income, and savings investment by local people. The bonds would offer safe investment and support development of sustainable economic activity – for example buying green belt land for local vegetable production, or enabling a more rapid insulation refit for the housing stock. Ultimately local pension funds might invest in these vehicles.

There are many advantages, including,

- Keeps investment money and its proceeds local.
- Provides alternative to inward investment.
- Mitigates government spending cuts.
- Primes steady state economy initiatives.
- Supports local employment.

- Offers a safe investment
- Builds local commitment to Manchester ventures and our shared community.

Municipal bonds are widespread in North America where proceeds are tax-free. They were used here in the past⁸⁴.

One way of pump priming the Manchester Green Investment Bond would be to use the projected proceeds from the proposed sale of 20% of the City's 55% interest in Manchester Airport Group⁸⁵. This has the elegance of reducing the city's dependence on ecologically unsustainable aviation (and thereby the resilience of the economy to the inevitable reduction in flying when fuel prices soar) and at the same time giving a boost to the replacement economy (see page 37).

4 Begin currency reform here.

The idea of establishing a regional currency, which could be insulated from the wider economy, as advocated by ecological economists and other sustainability thinkers, at first sight seems strange. However the idea of a national currency is not a strange one, and the consequences of surrendering it are now plain in the southern economies of the Eurozone which did not have the option of allowing the value of their currency to fall. Regional currencies would have similarly cushioned the economy of the former GDR, allowing time to adapt after unification, and the industrial economy of Northern Britain during the 1980s⁸⁶. There are several emerging examples of regional currencies, for example the Brixton Pound and Bristol Pound⁸⁷ - the latter sponsored by the city council, inspired largely by the Transition movement.⁸⁸ There has been temporary use elsewhere, e.g. in Argentina following the currency crash as a result of dollarisation of the at the beginning of the century, and local currencies in the USA during the 1930s⁸⁹. In both cases these initiatives were wound up after the crisis passed, in part because of pressure from vested corporate financial interests.

There are a variety of potential benefits. It keeps money local so it does not seep out of the local economy into corporate profits but benefits Mancunians. It encourages local investment and reduces the scope for speculative investment elsewhere. Since the currency is created locally, there should always be sufficient liquidity to enable trade within its region. Investment in local enterprise is favoured and

this helps build up the local economy and hence resilience against the coming shocks.

How might it work? Here is one possibility, but there are various options.

Local currency to be bought (with hard currency) at favourable rate - say 1 or 2 % above 1:1, so £MCR 1.02 = £GB 1.00 but exchanged back at less than 1:1 (to cover administrative costs and disincentivise "leakage" of the local resource back into the wider economy).

- It can only be spent locally.
- There is backing by a coalition of bodies (Councils⁹⁰, The Co-operative, credit unions, Manchester Building Society, local firms?).
- Employees could opt to have part of salary paid in it - with employers passing on the rate advantage.
- The advantageous exchange rate would be feasible given the closed nature of the economy in which it will be used - i.e. there wouldn't be speculation based on this rate since there is a finite limit to the size of the local economy. And if there were such speculation the rate could be titrated - i.e. active management of the local currency supply.
- It will be important to have 'buy in' from leading organisations. For example the city council could allow local fees and taxes to be paid in Manchester Pounds (as is the case in Bristol).

There is some uncertainty about the viability of local currencies.

Although it is unlikely at the present time that local currencies (or LETS, Time-banks, etc) will on their own be a major 'game-changer', it is worth exploring the idea in more detail locally as one option for re-localising and safeguarding the local economy. At least then there is the option in place should the city and region need to adopt it as economic and social conditions get more severe (as they surely will).

5 Help people escape housing-related debt through sharing.

While some people live in houses too big for their needs, others have difficulty in getting affordable accommodation. Meanwhile housing-related debt is a large component of personal debt and something that helped precipitate the current financial crisis. A locally sponsored scheme to share accommodation that is surplus to personal requirements might help here, as might schemes to facilitate moves to smaller accommodation, releasing larger properties at economic rents.

The replacement economy

Establishing a Steady State Manchester is in large part about building a new economy, a replacement economy in place of the flawed, ecologically and socially unsafe economy that we currently live by (with disproportionately large sectors based on, for example, cars, aviation, financial services and retail). The replacement economy then is to take the place of both the finance bubble economy *and* those parts of the economy of real production and distribution that is not only unsustainable but hurrying the ecosystem to destruction.

Some practical steps can be taken to promote it locally.

1 Establish a Manchester fund for co-operative development.

Co-operatives, which probably began in this part of the world are important tools for a steady state society for a number of reasons.

- 1) They help keep money in the local system.
- 2) They enable and encourage local production and distribution.
- 3) Like other local businesses they are effective in generating employment (a ratio of 4:1 for local versus non-local firms). A visit to a co-op store is instructive - in place of automatic check-outs that take people's jobs away, the co-op employs people.
- 4) They increase diversity in the local economy – new niches can be occupied and this builds resilience.
- 5) They help to create “good jobs” where people feel empowered and have control over what they do. They thereby contribute to a more balanced work-life.

This initiative would be in addition to, and link with, current support for co-operative development available through the Co-operative Enterprise Hub. There is a public consensus on the value of “social enterprises” and this can be built on, for example via “crowd-funding” developments that build endogenous development - i.e. that is not dependent on inward capital investment (the city's main strategy for the last two decades). That inward investment capital has its own priorities, wants its cut, and is drying up anyway.

2 Consider job creation incentives for small and medium enterprises/co-ops etc with green products / services.

This links to the procurement strategy already developed by the city council in conjunction with CLES⁹¹. There could, for example, be preferential procurement, reductions in business rates, practical help (e.g. with planning regulations), sharing functions like payroll, HR, accountancy; help with accommodation during start-up period. This should really involve a stricter eco-requirement in the tendering process, for example compliance with ISO14000⁹². All of these provisions would help establish a new wave of economic activity, businesses, jobs for Mancunians based on clear criteria and consistent with an overall steady state approach.

3. Facilitate the use of non-market capital to build the co-operative and social sector.

A number of commentators have shown that there is not a necessary correspondence between market and capital. There can be market mechanisms for economic allocation that are not tied to capital growth, and there can be forms of capital that are not tied to markets⁹³. The latter suggests a form of mutual aid among the elements of a replacement, non-growth-seeking, and largely not for profit economy. One example is the use of mutual aid between enterprises, services in kind, shared human capital (skills and knowledge for example) and the provision of services to social and cooperative enterprises that provide direct goods and services to the public. An initiative to help build a supportive infrastructure for this sector would be worth considering as a practical proposal⁹⁴.

4. Building adaptive system capacity: get serious about climate change adaptation and resilience to create jobs.

Given that the world has almost certainly failed to keep greenhouse gas emissions to a level that would keep global warming within 2 degrees C., we know that there will be climate related shocks to our pattern of life, here in Manchester as elsewhere in the world. There are also likely to be other systemic shocks to our pattern of life and while these cannot all be anticipated, others will come from the demise of cheap energy and from demographic change as well as from the internal contradictions of the dysfunctional global economy. We need to shock-proof our support systems and create resilience for, and with, our population. Some examples are:

- Ensuring that groundwater drainage systems can cope with higher levels of rainfall.
- Building food warehouses and associated infrastructure to mitigate the dangerous 'just in time' supply systems that mean we are no more than 'nine meals from anarchy'⁹⁵.
- Retrofitting buildings not just with insulation but also with passive systems (shade houses, solar chimneys ...) to reduce the impact of heat waves.

In other words a city that takes its responsibilities for civil emergency planning seriously in the face of climate change can also create jobs and hence local prosperity and well-being from the work that is required.

Reducing consumption and strengthening community

Our culture today is a strange one. In many ways we have been de-culturised. Even by comparison with Celtic Britain the lived culture of Manchester (like most of England) is weak, dependent on passive consumption. Some of this is a consequence of waves of the successive destruction and re-making of communities due to the enclosures and migration to the cities over the last 200 years. Comparing the cultural life of Manchester at the start of the 20th Century with that now is instructive. For example, a popular progressive movement organised around both political action and cultural events and practices, with choirs, walking and cycling groups, working people's institutes and educational resources, even secular churches. There were parallel participative cultures linked to other sectors too. That cultural life will not be re-created in the same form, but a re-discovery of those lived forms of culture and community would help both reduce our dependency on the consumption of consumer goods and services, and help build stronger and more resilient communities where mutual aid is the norm. In a context of welfare austerity too, such a transformation is a real necessity.

Box: Historical memory and lived culture

Manchester has an impressive history of participative people's culture that was an integral part of the struggles for social justice of the 19th and early 20th centuries. Taken together these examples suggest how a new people's culture could emerge again to replace the current culture of passive cultural consumption. That movement was much more than its trade unions and political parties, instead it was an all

embracing social movement with a whole way of life, of social relations that embedded social solidarity, learning, healthy living and cultural enrichment.

These are some of the main structures and initiatives in the working class history of Manchester.

*Mechanics Institutes
Working Men's Associations
Co-operatives – retail and producer
Unions
Journals
Bookshops
Socialist faith groups and socialist churches
International solidarity (Spain, 19th Century independence struggles, anti-slavery)
Clarion clubs – cycling, walking and music, and a newspaper
Access struggles culminating in the Kinder Trespass
Manchester and Salford Labour Halls
Socialist choirs
Orchestras
The Hall of Science.*

Beyond Manchester there were also intentional communities and housing schemes linked with the Chartist, Owenite and later movements.

In the 1970s there was also another resurgence of radical lived culture in Manchester, centred on two small groupings, Community Research and Action group and the Manchester Non Violent Action Group. Some initiatives variously linked to these groupings included

*The Community Levy for Alternative Projects
On the 8th Day
Grass Roots Books (later Frontline)
Several alternative newspapers including Manchester Free Press
North West Spanner Theatre Company
Community Arts Movement*

If we are to reduce reliance on energy intensive passive entertainment and at the same time build a new social movement for ecological living that lives its values and principles then these traditions need rediscovering, renewing and reinventing. And this must be done in a way that includes everyone, not just a section of those centred on districts like Hulme and Chorlton. Moston Miners' Community Centre⁹⁶ and Moston Small Cinema⁹⁷ is an excellent example of what we have in mind, but such examples are scarce.

We need to radically reduce unnecessary consumption, that is to say any consumption that does not meet a social or personal need⁹⁸.

Sadly, we are at a point where people's identities are tied up in consumption and without finding some way of addressing this it is

difficult to see how there can be success in building a steady state economy. This means that it is not just about replacing one 'type' of economy with another but it is about how together we shift values, perceptions and what people aspire to. There is a potential debate here - is consumerism a side effect of the underlying dynamics of growth and accumulation, or is it a key support for those processes, or again, do they mutually reinforce each other? But that does not matter too much so long as we attack both ends of the problem. As we feel loss more strongly than gain there is a need to find ways to highlight that this would be a gain (in terms of better quality of life, environment, community, etc.), rather than a loss (you can't buy mangoes from wherever). This is clearly very challenging, particularly at the local level but maybe there are some practical things that can be proposed.

Here are some suggestions for getting started on this. Some are easy and some harder. Some are controversial and others not.

Start a conversation in the city about how people view their happiness and well-being and materialistic lifestyles (does stuff really make you happy?). This can also help build citizen engagement with decision making on this agenda, as there will need to be both incentives and sanctions as well as persuasion and attitude change. The work will naturally connect with the city's current projects to improve carbon literacy, but making a real step change on this front.

Campaign for the re-taking of social urban space - for social and recreational options that aren't based on spending money.

Box: The lack of social urban spaces

One of the authors (who is retired) recently had two meetings on a rainy June day in Manchester. One finished at 3.30 and the other started at 7.30. He thought he'd spend time in the city between the two meetings. But what was there to do? You can only drink so much coffee, browse so many books in the bookshop (the Central Library is closed for refurbishment so when that re-opens it will be one option). It was a cold day so sitting in a square was out of the question. There is simply almost no indoor social space in the city so he ended up going home and coming back in for the 7.30 event. Manchester is not alone in this but it has become a site for cash transactions and not a place for people.

The council should adopt the provision of people's urban space as a strategic goal, building on its promotion of free cultural events in the

city centre. This directly reduces consumption and helps people fill time meaningfully. It builds appreciation of the urban fabric and hence social and civic responsibility. It also supports the strategy for reduced working time and greater equality. It begins to help reverse urban financial speculation - a key motor of growth here and in other cities.

A hearts and minds campaign to counter the propaganda of advertising. Prominent local personalities demonstrate how they are living satisfied lives on less.

Reduce advertising. An important symbolic gesture might be to follow the lead of Sao Paulo and ban advertisements in city controlled spaces (reversing the current trend that sees screens popping up all over the place). Failing this, and as a first step, the imposition of a levy to fund public information and other advertising for social good would be feasible.

The active promotion of sharing: car share, bike share, tool share, book share, domestic appliance and house and garden share schemes. This also helps with anti-poverty strategies. This links to the idea of “collaborative consumption”⁹⁹, essentially using technology to promote sharing, lending and exchanging skills and resources. Opportunities to develop and deploy these ideas in Manchester should be explored.

Manchester could obtain accreditation as a “slow city”¹⁰⁰. This initiative with membership comprising many municipalities worldwide is all about the reduction of unnecessary activity and speed, constructing instead urban environments characterised by conviviality and the savouring of life’s real pleasures. It involves compliance with a variety of criteria – many of which the city can already demonstrate¹⁰¹. Joining the network and becoming accredited under Cittaslow’s criteria for excellence would make a powerful statement of values by Manchester which would be by far the largest city participating in the movement.

Different sectors, different responsibilities

There are different sectors of our society and its economy and they all have a role to play in constructing a Steady State Manchester.

They are the **City Council** and the **public sector** together with the inter-agency bodies that comprise the **Manchester Partnership** and its regional correlates. **Business**, and especially for our purposes locally owned and managed businesses. **Civil Society**, i.e. those

sectors outside the market and the State - the community, voluntary organisations and societies, non-governmental organisations, informal groups, faith organisations and so on as well as the mass of the local population as families and individuals and networks of friends and neighbours. The council and public sector have a key leadership and coordination role as well as directly controlling or indirectly influencing a large part of the local economy. They will therefore be key players in many of the initiatives we propose. However the other sectors have crucial roles in creating and channelling wealth and in influencing behaviour and attitudes as well as inventing and incubating new ways of doing things. It is precisely because the adventure of a steady state society and economy is a step into the unknown, where we make the road by walking it, that we need everyone's participation. It is helpful to think in terms of a five sector partnership: 1) *local government and the public sector*, 2) *the private business sector*, 3) *the social enterprise and cooperative sector*, 4) *social movements and civil society* (including the political parties, trade unions, faith organisations, community and civic groups, large and small NGOs and campaigning organisations) and the 5) *the academic world of colleges, universities and schools*. Table 3 shows how our recommendations and proposals could relate to them.

Each of these sectors will need to see real potential benefits from adopting a steady state approach. Here are some examples (this is not a comprehensive list). **These benefits need to be logged and mapped to build our understanding of how Steady State Manchester is working.**

1) Public sector: a population with decreasing social problems due to rising equality, increased sharing and social solidarity, increased purpose and well-being. The knowledge that we are together addressing the key threats to population well-being via adopting 'strong sustainability'.

2) Private sector: better housekeeping, for example based on maybe a 30% reduction in input costs (raw materials, energy) and cross-sector collaboration (for example using one business's 'waste' as another's inputs. Improved training linked to the green replacement economy. Reduction of workplace stress due to adoption of a shorter hours model. Reduced waste: waste is no more a business virtue than it is a socialist principle.

3) Social enterprise and cooperative sector: The same things as the private sector plus the knowledge that the time of this sector has arrived, 168 years after the Rochdale Pioneers began.

4) Social movements and civil society: True involvement in the shaping of our society and the knowledge that for much of this sector, their aims for increased social justice, a better environment, a more caring society are being met.

5) The academic world. Input to improved and relevant training and education for a sustainable society. Contribution through research on the many dimensions of how to make a steady state society and economy work.

And for all sectors the joy of being part of the solution to our problems, part of a developing and ongoing collaboration that has jettisoned the false goals of 'more and more' for those of increasing human well-being in the context of 'enough'.

Steady State as a Mainstream Decision Aid

Beyond all these proposals we also suggest that the move to a steady state society and economy here should be an underpinning consideration for **every** decision taken by every organisation, big or small. **So at every decision point we all need to challenge ourselves with the question: *Does this action take us closer to or further from a just, safe and sustainable society?***

Table 3

Summary table of recommendations

Theme	Recommendation	Page reference	Relevant actors / comments
Redistribution	Publish data on wage differentials in the workforces of local employers	23	Council, public sector organisations, business, civil society, trade unions
	Promote an initiative to combat the long hours culture in many of our employing organisations	24	Council, Civil society, Chamber of Commerce
	A city sponsored initiative on salary deflation at the higher echelons	24	Council
	More workers for the same hours: a 10 out 12 in policy.	24	Council, public sector
Localisation	investigate and shorten the supply chains for our foodstuffs and other necessities of life.	24	Civil society, universities Has a role in resilience planning too
	Reduce Manchester's	26	All sectors

Theme	Recommendation	Page reference	Relevant actors / comments
	dependence on Imported Food Establish food gardens on public land.	27	Council, civil society
	Increase our Energy Self-Sufficiency, based on renewables. linking to an assertive strategy to radically reduce the amount of power used	27	Council, business, civil society
	Establish repair workshops and Promote sharing schemes for domestic and business durables.	27	Council, business, civil society
	Consider options for local re-industrialisation	27	Private sector, social enterprises and co-ops, Manchester Partnership and City region
Defining and Measuring well-	Use an assortment of measures to form a 'dashboard	28	Manchester Partnership

Theme	Recommendation	Page reference	Relevant actors / comments
being and prosperity	<p>of the city's social, economic and ecological health' and publish it widely</p> <p>Attain the widest possible, and growing, public understanding and participation in strategies to secure more of this 'genuine prosperity' for us all</p>	31	All sectors
Debt, money and ecological austerity	Promote alternatives to financialised credit	33	Council, business, civil society
	Clean up our investments, reducing their exposure to and complicity with financialised, unethical and unsustainable growth facilitating vehicles.	33	Public sector
	Provide alternative savings vehicles that also support sustainable developments and community services and amenities locally: for example, a Manchester Green	34	Council, business, civil society

Theme	Recommendation	Page reference	Relevant actors / comments
	Investment Bond (pump primed with sale of 20% of the city's interest in the airport).		
	Establish a local currency	35	Business, civil society, council, public sector
	Help people escape housing-related debt through sharing	36	
The replacement economy	Establish a Manchester fund for co-operative development	37	Council, business
	Consider job creation incentives for small and medium enterprises/co-ops etc with green and social products / services	38	Public sector
	Facilitate the use of non-market capital to build the third sector.	38	Council, civil society, business

Theme	Recommendation	Page reference	Relevant actors / comments
	Get serious about climate change adaptation to create jobs	38	
Reducing consumption and strengthening community	Start a conversation in the city about how people view their happiness and well-being and materialistic lifestyles linking with existing activist groups, initiatives etc?	41	Civil society, Manchester Partnership, Universities
	Reduce advertising.	41	Council
	Campaign for the re-taking of social urban space , reducing commercialisation of space and hence the need to spend money when using shared spaces.	41	Civil society, council
	A hearts and minds campaign to counter the propaganda of advertising.	42	Civil society

Theme	Recommendation	Page reference	Relevant actors / comments
	Active promotion of sharing	42	Civil society, Public sector, council
	Obtain accreditation as a 'slow city'	42	Civil society, council
Different sectors, different responsibilities	Map and log the benefits that occur, by sector, to build our understanding of how Steady State Manchester is working.	43	Manchester Partnership, academia, all sectors
	Use Steady State as a mainstream decision support aid.	44	All
Influencing our context	An agenda for national and international campaigning and lobbying	51	All
Conceptualising the challenge.	Define a safe operating zone for Manchester in terms of ecological boundaries and standards of population well-being.	22	

Influencing our context: an agenda for national and international lobbying and campaigning

One comment made many times during the work on this report has been that *'you can't isolate the city from the national and international economy'* - we are interconnected, inter-dependent and trying to pursue a steady state agenda in this context would be inviting economic ruin (the first 'standard objection' that we considered earlier).

There is a grain of truth in this. We are indeed dependent on the global economy, a dependence that is not chosen, but imposed from without. But given that steady state is the only realism available to us we have to square this circle and this involves influencing that wider context.

Manchester 'punches well above its weight' and it can use this influence to alter the context in which we operate. That means the city needs to launch its biggest campaigns ever for real change on a national and international level.

Here are some of the things we citizens, our organisations and our representatives will have to lobby, campaign and fight for. They draw on a variety of frameworks put forward by commentators and think tanks on ecological economics and sustainability¹⁰².

- Control of banking so national money can only be created by government as a key tool for ending the creation of debt through the activities of unsustainable levels of credit.
- Legitimation of local currency: in accordance with the proposal above, to ensure that there is a permissive and facilitative legislative and regulatory context for local currency developments.
- A programme of local/regional investment in local low-carbon energy systems and insulation.
- A Jobs Guarantee scheme¹⁰³ whereby the government provides guaranteed employment for all at or above the minimum wage. This would enable the massive works required to de-carbonise the energy system and provide alternatives to personal motor travel as well as building resilience in the food system.

- Ensuring more realistic fossil fuel prices that include the cost to the environment, and are high enough to tackle climate change effectively by creating the economic incentive to drive efficiency and bring alternative fuels to market. There are various ways to do this, for example by using a “Pigouvian” tax on the profits of oil and gas companies, establishing an Oil Legacy Fund, to help deal with the effects of climate change and smooth the transition to a low-carbon economy¹⁰⁴, or by a system of cap and share (rather than the flawed, market based cap and trade¹⁰⁵) whereby those bodies that bring carbon fuels to the market have to buy permits from the population¹⁰⁶. This latter approach to setting quantitative limits on resource throughputs is the preferred approach since it is not subject to the rebound effect¹⁰⁷.

- Re-regulating and re-designing the domestic financial system to ensure that the creation of money does not feed an orgy of consumption and resource throughputs while bringing needed stability and democratic control together with fair credit and reasonable returns for savers. This will include moving away from the current system of ‘fractional reserve banking’ either by breaking up oligopolistic banking institutions (the present banking and finance groups) or by separating out transaction accounts, savings accounts and speculative investment. It will also mean the mandatory introduction of asset locks to prevent any repeat of the destruction of mutual financial institutions that we saw in the 1980s and 1990s.

- Consider introducing land value taxation as a redistributive measure, linked to usufruct models of land use whereby its use is allowed without private ownership and the designation of land under a new category of ‘sustainable/low impact living’ – the key feature being the condition that it’s development is reversible, i.e. the land must be returnable to a ‘natural’ state after the lease.

- Re-regulating and subjecting the international finance sector to democratic control through governments. This will include reform of the Bretton Woods institutions (IMF, World Bank) and the World Trade Organisation and related bodies.

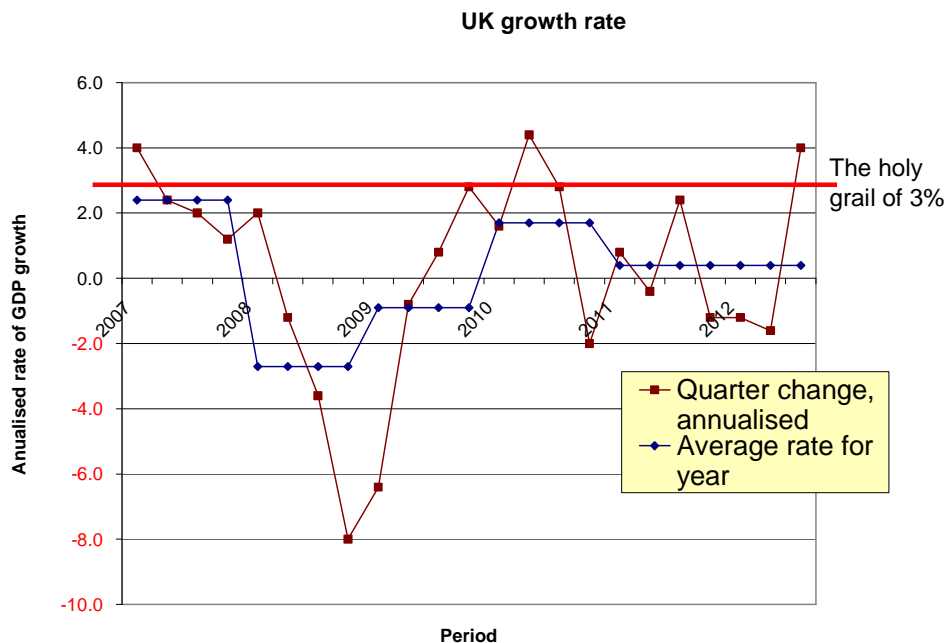
- Implementing a “Tobin tax” on financial speculation¹⁰⁸ - or simply outlawing it.

- Minimising corporate tax evasion by clamping down on tax havens and requiring transparent corporate financial reporting.

- Campaigning so that all countries have autonomy over domestic monetary policy (interest rates and money supply) and fiscal policy (government spending and taxation).
- Giving poorer countries the opportunity to escape poverty (without fuelling global warming) by financing investment in climate-change adaptation and renewable energy which will include the free and unconstrained transfer of new energy technologies to countries of the global South and by supporting initiatives such as Ecuador's Net Avoided Emissions / Yasuni proposal¹⁰⁹. This will be in place of the footloose investment of surplus capital into financial speculation, speculative urban development and arms that have characterised recent decades¹¹⁰.
- Protecting the rights of vulnerable people worldwide, for example by enacting legislation to prevent the encroachment on indigenous lands by UK registered companies and by ratifying ILO Convention 189, a key international law, which protects their basic human rights by involving them in consultations over 'development' projects on their land¹¹¹.
- Ending the use of the US dollar as the international reserve currency and instead implementing a standard that embodies sustainability (possibly a carbon-based metric in the short term).

Afterword: Will Growth Return?

We don't want to fall into the same trap as conventional economists and pundits who extrapolate from past trends to predict the future. They are still doing this for the Greater Manchester Economy and making predictions for years into the future based on historical trends!¹¹² But we do want to use recent data to leave you with some questions. Is growth going to return anyway? Is the current global crisis different in kind from previous ones? Is the motor of growth, of accumulation, broken? Certainly the present recession is longer than previous ones and it is taking the OECD economies longer to emerge from it. The globalised economy has been based on the subsidy of cheap fuel and the ability to expand forever to new markets, new 'commons' to enclose, new peoples to turn into wage-workers (or casualised, 'housewife-ised'¹¹³, contributors to profitability), and all this is now in question. So there is yet another argument for a new approach, a Steady State approach for a Manchester where people thrive without harming the planet or people who are unfortunate enough not to live here.



Glossary / Jargon buster

This is a guide to how we are using some of the 'jargon' in the report

Aggregate - a collection of items that are gathered together to form a total quantity. For example, the profits (and losses) of 5 different departments in one firm, together make the aggregate profit (or loss) of the firm.

Biocapacity is the capacity of an area to provide resources and absorb wastes. When the area's ecological footprint exceeds its biocapacity, unsustainability occurs: the area is then running up an 'ecological debt'. (see separate definition).

Biodiversity is the degree of variation of life forms within a given species, ecosystem, biome, or an entire planet. Biodiversity is a measure of the health of ecosystems. Biodiversity is in part a function of climate. In terrestrial habitats, tropical regions are typically rich whereas polar regions support fewer species

Biome – a very large ecosystem e.g. Tropical Rainforest.

Bioregion- A natural region, based on landforms and ecosystems rather than arbitrary political boundaries (although they do sometimes coincide). Often bounded by hills and mountains, coasts, rivers or defined by river catchment systems. A distinction is sometimes made between geo-regions and eco-regions but both are types of bioregion. Bioregions of different scale are nested within one another and they also overlap. *"Archaeology records a series of civilisations that rose and fell as they depleted their bioregional resource base."* David Holmgren.

Bubble -Speculative growth in financial assets that outstrips the value that can be sustained by a more fundamental measure. So the recent phase of financialisation of the economy has meant the inflation of property values and that of stock and commodity derivatives to a degree that a crash in valuation was inevitable. It is also arguable that the so called real economy that underpinned the financial economy is itself a bubble dependent on temporary support from finite energy subsidies. Again values will crash when they can no longer be sustained, for example as a result of the escalating cost of transport.

Capital - used in accounting to mean non-recurrent and usually large sums of money, typically used for buildings and other plant. This meaning, depending on the system in which it is utilised, is close to the Marxist notion of fixed capital. Human capital is used to describe the acquired capacities of a population or group. Social capital (Bourdieu, Putnam – who use the term in rather different ways) refers to the supportive, solidarity-forging interrelations among the members of that population, respectively.

Carbon sequestration - a process of reducing greenhouse gases by capturing them and locking them up, temporarily or permanently, for example by burying or by planting trees which absorb carbon. There are natural processes of carbon sequestration (by solution in the water of the ocean, by marine algae and by forests, all of which have been weakened by the impact of industrial activity).

City Region - The term came into widespread use in Britain to mean something like the metropolitan area, or city-orientated conurbation around 2004, following the dropping of plans for regional assemblies in England, itself a result of the rejection of this plan in a referendum in North East England. With the budget statement 2009 the concept gained further momentum as Manchester and Leeds were granted city region status, conferring increased economic autonomy on the inter-authority bodies – in the case of Manchester AGMA, the Association of Greater Manchester Authorities and now the Greater Manchester Combined Authority.

Contradiction - Within a complex system, certain elements will compete with one another, cancel each other out, or create a crisis situation that can only be resolved through some more fundamental change.

Corporate – belonging to a corporation or other organisation.

Corporation - while this literally means any incorporated body, it is widely used to describe incorporated entities that have a large number of shareholders where ownership can be transferred without the need for the consent of other shareholders. An incorporated entity is a separate legal entity that has been incorporated through a legislative or registration process. Incorporated entities have legal rights and liabilities that are distinct from its shareholders, and may conduct business for either profit-seeking business or not for profit purposes.

Crash - This is what happens after a population overshoots the capacity of its environment to support it – note that this only requires one critical limiting factor <http://books.google.co.uk/books?id=QyzHKSCYSmsC&dq=diamond+collapse>¹¹⁴

Crisis - This means a situation wherein the contradictions of a system reach a level beyond which they cannot be contained. This leads to a reorganisation of resources, arrangements, relationships, values and so on.

De-coupling refers to the ability of an economy to grow without corresponding increases in environmental pressure.

Degrowth – see page 7.

De-linking – Currently Manchester is part of a global system of trade. Steady State proposes a trading system which focussing largely on the local

economy which will require relative but considerable de-linking from the global system of trade.

Dematerialisation literally means the use of fewer materials.

Dematerialisation is defined by UNEP as "*the reduction of total material and energy throughput of any product and service, and thus the limitation of its environmental impact. This includes reduction of raw materials at the production stage, of energy and material inputs at the use stage, and of waste at the disposal stage*".

Democracy - is a form of government where the people have sovereignty - literally rule by Demos, the people. But in practice this tends to mean that the people are represented by a political elite. In a complex and large society representation is inevitable, so representative democracy needs supplementing with other forms – participative, direct, community, workplace where society is working at its best because it draws on the capacities of everyone and ensures they have power and control¹¹⁵.

Ecological - characterized by the interdependence of living organisms in an environment or relating to the science of ecology.

Ecological debt refers to the consumption of resources in an ecosystem at a level greater than the system's regenerative capacity. It is a term used since 1992 by some environmental organizations from the Global South¹¹⁶ to refer to the environmental liabilities of Northern countries for the excessive per capita production of greenhouse gases, historically and at present.

Ecological economics - a transdisciplinary and interdisciplinary field of academic research that aims to address the interdependence and co-evolution of human economies and natural ecosystems over time and space. It is distinguished from **environmental economics**, which is the mainstream economic analysis of the environment, by its treatment of the economy as a subsystem of the ecosystem and its emphasis upon preserving natural capital.

Ecological footprint - The demand we place on the planet's resources makes up our ecological footprint. It is measured in terms of the area of land needed to support a person, community or nation. Measuring yours takes less than 5 minutes, <http://footprint.wwf.org.uk/>

Ecological Justice - all living things have a claim in justice to a fair share of the planet's environmental resources.

Ecosystem - a community of living organisms (plants and animals) sharing an environment. The term emphasises the systemic nature of ecological relationships with interdependencies, feedback loops and emergent properties (the whole being more than the sum of the parts). The largest ecosystems are called biomes.

Endogenous development means development from within – in this case from within the communities of Manchester. It must be stressed that endogenous development does mean a change of emphasis from global competition to relative regional self-reliance. It means creating, sharing and using wealth locally and not depending on inward investment – the model that became dominant during the height of neoliberal madness. The term is being used in Venezuela to describe local economic development supported by State aid.

Environmental Abuse - Environmental abuse is contamination of the environment as a result of human activities. We also use the term to include environmental abuse of people where they live in areas which endure the environmental costs of economic activity and do not get a fair share of the benefits (see environmental justice)

Environmental Justice - This concept challenges the status quo where communities hosting waste-disposal facilities receive fewer economic benefits than communities generating the waste. This happens because some areas, communities, regions and countries receive benefits, such as jobs and tax revenues, from industrial production while the costs, such as the burdens of waste disposal, are sent elsewhere. The term was developed by black environmental activists in the USA. It is the pursuit of equal justice and equal protection under the law for all environmental statutes and regulations without discrimination based on race, ethnicity, and /or socioeconomic status and recognises procedural, geographic and social inequity.

Food security - The ability of a community (family, village, town, region, country) to guarantee food for its people. In the UK we import the greater part of our food and have very low stocks of staples. Food security is therefore low despite the apparent abundance which is dependent on the continuation of supply chains. The vulnerability of these was demonstrated during the lorry driver's dispute in 2000. A related concept is "**food sovereignty**" which more radically focuses on a people's control over its own food sources rather than being dependent on industrially or multinationally-produced products and international trade.

Keynesianism - In the years of the Great Depression of the 1930s, John Maynard Keynes proposed that in order to get the economy moving again government should put additional money into the economy. It could do this through major public expenditure programmes, financed by public debt that would be repaid as the economy boomed again. The idea was to put money back into people's pockets (reducing their tendency to save/hoard in difficult times) and thereby get production and distribution moving again. In the current recession most governments have made some degree of intervention of this sort.

The idea is to reduce the bad effects of the functioning of the market, not to radically alter the capitalist system itself. However in the post war period increased public spending had a Keynesian demand stimulatory effect, also altering the balance (temporarily, it turned out) between capital and labour.

Living Well - Abandoning the race to live better (better than someone else, no matter the costs) and embracing what is really important to living well. 'Living Well' is a translation of the Spanish terms Buen Vivir and Vivir Bien, themselves a translation of a much broader concept from indigenous languages and traditions: Sumak Kawsay in Quechua/Kichwa and Suma Qamaña in Aymara with related terms in Guaraní and Mapuche, among others. These terms imply living in harmony with others, with nature and with respect to other generations, past and present. They also can be translated as 'plentiful life'¹¹⁷. We introduce a related concept here, that of 'ecological prosperity'.

Macroeconomic modelling is the use of a tool to analyse the operation of the economy of a country or a region in broad terms rather than local detail.

Majority World highlights that the majority of humankind live in the poorer countries are indeed. It also brings to attention the anomaly that the Group of 8 countries—whose decisions affect a majority of the world's peoples—represent a tiny fraction of humankind.

Over-privileged - Having an excess of opportunities or advantages. This is a relative term, the vast majority of people living in the West are over privileged in relation to most people who live in Southern countries but there are many disadvantaged people within the minority world too..

Practical Solidarity – Learning from, connecting with and involving people from underprivileged communities in Manchester and elsewhere especially in Southern countries as equals to develop mutually supportive relationships in order to develop a steady state in Manchester which promotes equity within the city and between Manchester and elsewhere

(re-)Localisation - Currently Manchester is part of a global system of trade. Steady State proposes a trading system which focussing largely on the local economy which is referred to as re-localisation

Resilience is the capacity of a system, community or individuals to absorb disturbance and reorganise while undergoing change, so as to still retain essentially the same function, structure, identity and feedbacks. This depends on at least four dimensions including

Diversity – the variation within the system. A field of one crop is more vulnerable to pest attack than a field of mixed crops.

Modularity – the extent to which the system is broken up into relatively autonomous subsystems. The banking crash of 2008 was exacerbated by the size and interdependence of financial institutions.

Tightness of Feedbacks – the speed with which the system can respond to disturbance.

South or Global South refers to the poorer least 'developed' countries and is not wholly defined by geography and is somewhat outdated. But for want of a better term we are using it here. Other terms include Majority World (see above), developing countries¹¹⁸ and third world¹¹⁹.

Steady state economy – see page 6.

Social pathology - a social factor, such as poverty, old age, or crime, that tends to increase social disorganization and inhibit personal adjustment and the study of such factors and the social problems they produce.

Subsidiarity - the principle that tasks should be performed at a local level wherever possible

Sustainability – able to be maintained at a certain rate or level or conserving an ecological balance by avoiding depletion of natural resources.

Transition - Moving from one state to another. But here we mean the managed process of moving from the hydrocarbon-dependent, productivist-consumptionist current system to one where we live within the resources of the planet. There is a growing movement that uses a concept akin to this to plan for transition to low carbon living in particular towns, cities, neighbourhoods. Steady State Manchester is a transition approach at the municipal and bioregional levels. See <http://transitiontowns.org/Main.HomePage>

[http://www.appropedia.org/The Transition Handbook - free edit version](http://www.appropedia.org/The_Transition_Handbook_-_free_edit_version)

Underprivileged -Lacking opportunities or advantages enjoyed by others because of poverty and discrimination for example a decent standard of living, adequate education and economic security

Unilaterally – doing something alone or from a one-sided perspective.

Watershed - The area of land that drains its water into a particular river system the catchment of the river system. The watershed is more than the rivers – it is the land around them. Watersheds often define the boundaries of a bioregion.

Well-being – see pages 7 and 28.

Notes

- 1 As measured by Gross Domestic Product (GDP). There are various ways of expressing the size of the economy, none of them entirely adequate: here we follow convention and use monetary value since this is what is used in the most available measures. GDP correlates with the material throughput of the economy, that is to say the flow of raw materials into the system, their transformation and consumption, and the waste products, most significantly for current purposes greenhouse gas emissions. GDP is not an accurate measure of the growth in size of the material economy, but for many purposes we can use it as a short hand. Limitations on GDP and proposals for using other measures of the health of the economy, society and ecosystem are presented in a later section (*Defining and measuring well-being and prosperity*, p. 28)
- 2 <http://www.tradingeconomics.com/Economics/GDP-Growth.aspx?Symbol=GBP> The comparable international rates are 3.2% (21 years to double) for the advanced economies and 5.0% (14 years to double) for the rest (IMF members only) International Monetary Fund, World Economic Outlook Database, October 2008, cited by Manchester Independent
- 3 Prosperity Without Growth: The transition to a Sustainable Economy. Tim Jackson Sustainable Development Commission http://www.sd-commission.org.uk/publications/downloads/prosperity_without_growth_report.pdf
- 4 <http://www.footprintnetwork.org/en/index.php/GFN/page/trends/uk/> Local calculations suggest somewhat higher levels: UK: 5.43; NW: 5.45; Manchester 5.4 see http://hosting.creativeconcern.com/ecoregion/projectresources_downloads_workbooks.php
- 5 http://www.footprintnetwork.org/images/trends/2012/pdf/2012_unitedkingdom.pdf
- 6 Figures quoted here refer to the the City of Manchester.
- 7 A position shared with Tower Hamlets. See Save the Children (2011) *Briefing: Severe Child Poverty: Nationally and Locally*. http://www.savethechildren.org.uk/assets/images/Severe_Child_Poverty_Nationally_And_Locally_February2011.pdf
- 8 The Irwell Group (2011) *Living Well in Manchester*. <http://irwellgroup.files.wordpress.com/2011/12/living-well-in-manchester.pdf>
- 9 i.e. "Local Super Output Areas".
- 10 Manchester Partnership (2011) State of the City 2011/12 Report. http://www.manchesterpartnership.org.uk/downloads/file/107/chapters_1-3_foreword_executive_summary_introduction_and_context
- 11 <http://www.manchester.gov.uk/blog/leadersblog/post/570>
- 12 Elsewhere we refer to *ecological austerity*. There is no contradiction: we propose living on less but ensuring everyone has access to the necessities of life, and a re-founding of our lived culture to enhance conviviality and well-being without the need for consumption for the state of it. Prosperity and austerity are two sides of the same (Manchester Pound) coin.
- 13 Based on Daly, H. E., & Farley, J. (2011). *Ecological economics: principles and applications*. Washington, D.C: Island Press.
For an excellent review of the concepts of steady state and degrowth in the context of debates over the last 50 years on sustainability and limits to growth see Perez-Carmona, A. (2013). Growth: A Discussion of the Margins of Economic and Ecological Thought. In L. Meuleman (Ed.), *Transgovernance* (pp. 83–161). Berlin, Heidelberg: Springer Berlin Heidelberg. Retrieved from http://www.springerlink.com/index/10.1007/978-3-642-28009-2_3
- 14 O'Neill, D, Dietz, R, & Jone, N (Eds.). (2010). *Enough is Enough: Ideas for a Sustainable Economy in a World of Finite Resources. The report of the Steady State Economy Conference*. Leeds: Centre for the Advancement of the Steady State Economy, and Economic Justice for All. http://steadystate.org/wp-content/uploads/EnoughIsEnough_FullReport.pdf
- 15 see e.g. Martinez-Alier J, Pascual U, Vivien FD & Zaccai E. 2010. Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm. *Ecological Economics* **69** : 1741–1747.

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- 18 The metaphor is our own.
- 19 Fournier V. 2008. Escaping from the economy: the politics of degrowth. *International Journal of Sociology and Social Policy* 28 : 528-545.
- 20 International Union for the Conservation of Nature.
- 21 We are grateful to Jules Peck for these clippings.
- 22 Manchester Partnership (2011) *State of the City 2011/12 Report*. http://www.manchesterpartnership.org.uk/downloads/file/107/chapters_1-3_foreword_executive_summary_introduction_and_context
- 23 Berners-Lee, M, Hatter, W, & Hoolohan, C. (2011). *The Total Carbon Footprint of Greater Manchester: Estimates of the Greenhouse Gas Emissions from Consumption by Greater Manchester Residents and Industries*. Small World Consulting / Lancaster University. Retrieved from http://manchesterismyplanet.com/file/t1CdrX8LUv_110758.pdf
- 24 CO₂e means “carbon dioxide equivalent”. It is a measure of greenhouse gas emissions used to provide a common metric for the various gases, some of which are more damaging than carbon dioxide.
- 25 Greater Manchester Local Economic Assessment: Summary & Conclusions, January 2011 <http://neweconomymanchester.com/downloads/1067-00-GM-LEA-Summary-FINAL-doc>
- 26 see <http://neweconomymanchester.com/stories/1544-greater-manchester-growth-plan>
- 27 Nor for that matter is it realistic to connive in the commodification and financialisation of food, forests, biodiversity, or water. See Lohmann, L. (2009). *When markets are poison: learning about climate policy from the financial crisis*. (Briefing No. 40) (p. 68). London: The Corner House. Retrieved from <http://www.thecornerhouse.org.uk/resource/when-markets-are-poison>; Tricarico, A, & Gerebizza, E. (2012). *Why the lock-in of financialisation could further delay a low carbon and just transition beyond the growth paradigm*. Presented at the International Conference on Degrowth, Venice: Research and Degrowth. Retrieved from http://www.venezia2012.it/wp-content/uploads/2012/03/WS_22_FP_GEREBIZZA.pdf
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- 30 Where the local takes precedence over the less local unless the less local offers clear advantages (for example on carbon emissions).

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- 32 Wilkinson, R., & Pickett, K. (2009). *The Spirit Level: Why More Equal Societies Almost Always Do Better*. Harmondsworth: Penguin.
- 33 Woodward, D., Simms, A., Murphy, M., & New Economics Foundation. (2006). *Growth isn't working: the unbalanced distribution of benefits and costs from economic growth*. London: New Economics Foundation.
- 34 Victor, P. A. (2008). *Managing without growth slower by design, not disaster*. Cheltenham; Northampton, Mass.: E. Elgar; Victor, P. A. (2011). Growth, degrowth and climate change: A scenario analysis. *Ecological Economics*. doi:10.1016/j.ecolecon.2011.04.013.
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- 36 Mies, M., & Bennholdt-Thomsen, V. (1999). *The subsistence perspective: beyond the globalized economy*. London: Zed Books.
- 37 This assumption can perhaps be traced to *Our Common Future*, the Report of the Brundtland UN Commission in 1987 <http://www.un-documents.net/wced-ocf.htm>. This was an early popularisation of the idea of 'sustainable growth', an idea that the UN is still promoting via its market orientated Green Economy. One of the most succinct critiques of this idea can be found at <http://www.uncsd2012.org/content/documents/DISCURSO%20EMB%20SOLON%20DIALOGO%20ING.pdf>.
- A local example can be found in the *Greater Manchester Strategy* (p. 7) "We have to achieve an increase in productivity and prosperity that does not bring with it an associated increase in our carbon emissions. We need to 'decouple' economic growth from ever higher levels of carbon and then we need to work hard, through energy efficiency, behavioural change or an investment in environmental technologies, to drive those emissions down still further."
<http://neweconomymanchester.com/downloads/910-GMS-August-2009-2-pdf>
- 38 SERI, <http://www.materialflows.net> cited in O'Neill, D, Dietz, R, & Jone, N (Eds.). (2010). *Enough is Enough: Ideas for a Sustainable Economy in a World of Finite Resources. The report of the Steady State Economy Conference*. Leeds: Centre for the Advancement of the Steady State Economy, and Economic Justice for All.
- 39 Material intensity: the amount of materials such as gas, oil, metals per unit of monetary output.
- 40 <http://tinyurl.com/25q76h2>
- 41 Victor, P. A. (2011). Growth, degrowth and climate change: A scenario analysis. *Ecological Economics*. doi:10.1016/j.ecolecon.2011.04.013
- 42 Jackson, T. Prosperity Without Growth. London: Sustainable Development Commission, 2009. http://www.sd-commission.org.uk/publications/downloads/prosperity_without_growth_report.pdf, Næss, P., & Høyer, K. G. (2009). The Emperor's Green Clothes: Growth, Decoupling, and Capitalism. *Capitalism Nature Socialism*, 20(3), 74–95. doi:10.1080/10455750903215753
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- 43 http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/
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- 54 <http://www.trafford.gov.uk/news/press/details.asp?ID=2688>
- 55 <http://tinyurl.com/dkcm7s>
- 56 <http://www.zerocarbonbritain.org/>
- 57 For a discussion of the rebound effect see Blackwater, B. (2012). The denialism of progressive environmentalists. *Monthly Review*, 64(2), 10–21. <http://monthlyreview.org/2012/06/01/the-denialism-of-progressive-environmentalists>
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- 63 <http://www.equalitytrust.org.uk/why/evidence/methods#measured>
- 64 Manchester City Council Real Time Economy Dashboard September 2012 http://www.manchester.gov.uk/download/19190/real_time_economy_dashboard
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- 67 see http://www.ons.gov.uk/ons/dcp171766_272294.pdf section 6
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<http://www.green.maryland.gov/mdgpi/>
- 72 http://www.manchester.gov.uk/manchesterpartnership/downloads/download/5/state_of_the_city_report_2011
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- 112 see http://neweconomymanchester.com/stories/1119-greater_manchester_forecasting_model
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