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Solving the Human Sustainability Problem in Short-Termist Societies

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Abstract

Society has so far failed to create a sustainable economic system because all conventional attempts to change the current paradigm lead to a short-term decline in the rate economic growth, resulting in higher inequality and unemployment, outcomes which are politically unacceptable. This article shows how to overcome this hurdle, by adopting 13 unconventional policies which reduce unemployment and inequality while cutting greenhouse-gas emissions, regardless of what happens to economic growth, and so allow for a gradual transition to a sustainable system in short-termist societies.

Keywords: Economic Growth, Climate Change, Population, Unconventional Policy Options, Inequality, Sustainability, Green Growth, Limits to Growth, Short-termism.

The Club of Rome has been searching for a solution to the sustainability problem – that of fitting a big and materially rich human population onto small planet – for more than 45 years. The problem was first defined in its famous first “Report to the Club of Rome”, *The Limits to Growth*, published in 1972, and co-authored by one of us.

The crux of the problem is comparatively simple. If there is continuing growth – in population, resource use or pollution – on a finite planet, the likely outcome is

overshoot of the physical limits of the planet. Such overshoot will be followed by collapse, back to sustainable levels, unless there is genuinely extraordinary action to organise a managed decline. Pitted against the ambitions of humanity, in other words, the laws of physics are unlikely to yield.

Collapse would not happen overnight, of course, but rather over several decades, and it is our belief that the fraying of the environmental and economic threads that hold human society together has already begun. Climate change is the most obvious sign, though rising levels of air and water pollution, the loss of numerous species, and humanity's rising migration problems are all indicators of a failing system too.

The biggest problem however, is climate change. Unless there is a very significant change in human behaviour over the next 20 years, global temperatures will reach a level that is +2°C above the pre-industrial average by 2050. This will intensify the already observable damage from extreme weather, increase human migration flows, cause much unnecessary suffering to many life-forms, and threaten the stability of many human institutions. In the long run, after the year 2100, the +2°C rise will be enough to start a gradual and unstoppable melting of the northern permafrost. This will take several centuries but will be accompanied by continually rising sea levels – from one metre this century to another half a metre each following century.

If we do not dramatically reduce the level of damaging emissions in the next few decades then, the subsequent warming will kick off a chain-reaction which humanity will be powerless to stop, with serious negative consequences for the vast majority of living things on the planet.

In the first few decades following the publication of *The Limits to Growth*, the Club of Rome directed its efforts towards informing the political establishment about the sustainability problem, reasoning that politicians were elected to protect the well-being of voters – and ensure their survival – and that they would act accordingly. The results of this approach were positive at first, but then suffered from a steady backlash from those parts of the business establishment which wanted to stick to the current path, because it is easier and more profitable, regardless of the long term consequences for humanity and the planet. The views

of these businesses were, sadly, also supported by many voters who feared losing their jobs during the transition to a more sustainable system.

Evidence and data are not enough

Our conclusion from this experience is that it is not sufficient to present solid scientific data and then expect the political establishment to act. Creating the necessary momentum for a transition requires something else.

Recently, we have been working on specific solutions to the climate challenge – knowing that it will now require genuinely extraordinary action to stop global warming before it is too late. The main problem, in a short-termist world, is that the obvious steps needed are way beyond what will be profitable or cost-effective and, most critically, far beyond that which is conventionally possible in a free-market democratic society. Solving the problem requires significant government intervention – in the form of well designed restrictions and subsidies – yet this seems politically impossible in much of the rich world, certainly for now.

Faced with this conundrum, it is only mildly comforting to know that it is actually quite simple – in principle – to solve the climate problem. All it takes is a ban on the use of coal, oil and gas to reduce greenhouse gas emissions by 70-80 %. Sadly, this seems to be politically infeasible as well, because voters are unwilling to pay more for electricity, gasoline and heating or cooling. Even for the proponents of such a ban the rewards would be elusive unfortunately, because the climate problem will continue to worsen for decades no matter what society now does.

So politicians will not do what is necessary to stop planetary warming because this will not be popular with voters.

So what to do?

Unconventional solutions are needed

Our new book *Reinventing Prosperity* (the German title *One Percent is Enough* offers a better summary of what we are proposing) provides the answer. It lists 13 extraordinary and unconventional policy measures that, if implemented, would make solving the climate problem much easier.

Our proposals differ from other climate solutions because we restrict ourselves to policies that should be politically feasible in rich-world free-market democracies. We have limited ourselves to proposals that will provide an immediate advantage to a majority of voters, in other words, and which will go a long way towards solving the climate problem.

Importantly, our proposals are designed in such a way as to avoid any increase in unemployment or any widening of inequality during the transition from a fossil-based energy world to a more sustainable one. This is crucial, because it is a sad fact that conventional climate solutions cut the number of jobs in dirty industries (those producing or using coal, oil, and gas) without providing a safety net for those who lose their jobs. It is therefore unsurprising that there is so much opposition from those who stand to lose.

A central objective of our 13 proposals is to ensure that those who lose their jobs during the transition continue to receive a steady income until they have been trained for, and obtained, a new job in cleaner industries. As well as work in the production and use of renewable energy (solar, wind, hydro and biomass) these new jobs will typically be in services, care, culture or research.

As the transition only affects around one percent of all jobs in the rich world – which is one of the reasons for the title of the German version of our book – it should be politically manageable to provide this safety net. (We deal with the poor world separately, because the steps required in the poor world are different. For decades, the poor world has been advised to follow the economic policies of the rich world, and these have generally been to the poor world's disadvantage. We believe that the economic policies of the rich and poor world need to be different, especially in the future.)

The transition from dirty to clean still needs to be financed however, and the simplest way to do this is for governments to impose slightly higher taxes. But charging any sort of new taxes – to make the understatement of the year – is unlikely to be welcome in some countries. Few people would favour a tax rise in the US, Australia and the UK, for example, because the majority of people in these countries seem unwilling to pay for a shift from fossil to the low-carbon energy, despite the long term environmental rewards that would accrue to all.

We have pondered long and deep to find a way around this problem. Our solution, as described in our book, is a basket of policy changes that – together – provide income and job security to those affected by the transition without any increase in taxes. By raising the number of annual vacation days (we use the example of two additional days each year) for example, without any reduction in pay, the number of jobs available in an economy gradually increases, creating new work opportunities (because the available work is more evenly shared). This idea should be supported by the majority of people too, because it offers more leisure time without any reduction in pay. The cost is a mild rise in inflation, and so is paid equitably by all. Shortening the work year also slows output growth and the growth in greenhouse gas emissions.

We understand, of course, that it will take a lot of explaining to demonstrate that our 13 proposals lead to increased income security and so eliminate the resistance to strong climate action. Yet they actually offer much more, because they would boost average well-being throughout the rich world too.

We also acknowledge that our proposals do not further the economic interests of the rich, and hence will be resisted intensely by business owners and many business people. But even in rich nations these people constitute a tiny minority and their special interests should not win the day if there is truly democratic decision-making.

The 13 proposals are listed at the end of the article in a table. In our view, three of the most innovative and promising are:

1. Accelerate the emergence of clean business sectors through the use of green stimulus packages.

In simple terms, this means printing money to pay for whatever is needed to cut greenhouse gas emissions. If governments can print trillions of dollars to prop up the financial system, they can logically print money to stop climate change.

To drastically slow climate change, humanity must stop burning fossil fuels and find replacements for the three major uses of such energy; the production of electricity, transport, and heating/cooling of buildings. This requires:

1. a rapid expansion of renewable electricity capacity (solar panels, windmills, hydroelectric plants, (some will argue nuclear)),

2. the electrification of the transport sector (replacing all fossil-fuelled cars and trucks, as well as many boats and trains, with electric ones, and establish the charging infrastructure), and
3. a vast increase in the energy efficiency of buildings (that is, to insulate them better) before they are converted to electric heating/cooling.

These three steps would reduce greenhouse gas emissions by as much as 70 – 80 % and are the core elements of the much discussed, and generally misunderstood, “green shift”.

Our printing money proposal accelerates the electrification of the economy by using today's existing stimulus packages for an unconventional purpose. (Interestingly, President Trump has already suggested using stimulus packages to create jobs in the US by improving the highways though he could actually create the same number of jobs in the production of windmills, electric cars and installing building insulation while reducing his country's ecological footprint.)

Such green stimulus packages should be welcomed by the majority of people because they create jobs without any short-term cost to voters. In reality, and in the long-term, there should be a small cost, through a small hike in inflation (though, interestingly, this has not happened when the policy has been used to bail out the banking sector).

South Korea used green stimulus packages – paying people to create a cleaner country – as a central part of its macroeconomic response to the financial crisis in 2008-09. China is adopting a similar approach in its effort to clean the air of its mega-cities – by paying millions of workers to clean the air using newly printed money.

2. Tax coal, oil and gas heavily and divide the revenue among all citizens equally.

This proposal is to introduce a high tax on coal, oil, and gas – levied at the coal face, oil well, or gas pipeline entry point (or at the port of import) – and give the revenue to adult citizens equally in monthly pay cheque. It would make coal, oil and gas more expensive, and accelerate the transition to renewable energy. As the dividend cheque received by the majority of people would be larger than

the extra cost they have to pay for energy, since most people use less energy than the average, the policy would benefit most people. It is also redistributive, shifting income from the rich to the poor. The majority would have an immediate short-term advantage and everyone would have an incentive to use less dirty fuel.

Iran used this method to remove its huge subsidies on fossil fuels. To gain popular support, the government started by sending cheques to all households one month before it eliminated the subsidies.

3. Increase the number of annual paid vacation days – for example adding two more vacation days every year – without any reduction in annual pay.

In purely economic terms, this proposal offsets productivity increases with more leisure time. Two fewer working days a year is less than 1% of a normal work year – yet another interpretation of our book title – and can be compensated for by increased productivity, which has been around 2% a year in recent decades in the rich world. If productivity improvements are lower, then longer vacation time will simply increase the inflation rate slightly and so will be paid for by all citizens equally.

For this proposal to work best, vacation time should be compulsory and self-employment discouraged.

Norway, Germany and other European countries have already applied this policy since 1960 to great effect. The citizens of these countries have a work year (1,600 hours a year) that is much shorter than that of US workers (2,000 hours), yet incomes remain high, vacations are longer, and average subjective well-being has improved.

The elephant in the room

As this is a journal about population as well as sustainability, we should add some comments on the population issue, as it is a central theme of our book too. While the world has improved its energy and resource efficiency dramatically in the last 30 years, these gains have been more than offset by a near-doubling in the number of people on the planet, with the result that the total human ecological footprint has continued to rise. Humanity lives today as if there were 1.6 planet

Earths (Global Foot Print Network 2003), something which is only feasible for a limited period of time.

Fixing this problem is, of course, extremely hard. Without some sort of famine, war or pestilence on a near global scale, the human population will continue to grow for many years, and with it the pace of ecological damage. The only proven way to reduce the rate of population growth, other than a one-child policy, is through improved levels of education, especially of women, better healthcare, especially of children, and, of course, through more easily available contraception.

In our book we have made one additional proposal, which we believe will lower birth rates further, and, at the same time, offer moral support to those many hundreds of million of women who have already made the decision to limit their family size.

In making this proposal we have two objectives. First, we want to help a wide audience understand that the human population is too large. We want to shine a light onto a subject which has been insufficiently addressed for decades and encourage debate. Second, we want to highlight the fact that the problem is not only in Africa, south-east Asia and the rest of the poor world, as many people seem to believe. Despite low and falling birth rates, it is a problem of the rich world too, because the average child born in the OECD creates up to 30x more environmental havoc than one in the poor world (Global Foot Print Network, 2017).

Our proposal is to reward women who have one child only, or none, through the payment of a generous financial bonus on their 50th birthdays. We do not advocate removing the existing incentives that encourage people in the rich world to have more children (maternity and paternity leave, income support, and free kindergartens, for example), because they have many other advantages. We advocate instead the use of incentives that encourage fewer children, partly because this will encourage a change in thinking.

Our proposal also helps strengthen the status of women and further increase their influence over the crucial decision of family size. It represents a shift from the oft-heard view that families without children are not doing their bit to create the workforce of the future.

Why give the payment to women only? Because they are the ones who actually carry and give birth to a child. This puts a pressure on women that men do not experience, and we see our proposal as a way to recognize this.

We do not pretend that our idea will be easy to implement, or indeed easy to get accepted. We admit too that there are all sorts of practical problems, such as how societies should reward singles, same-sex couples, the infertile, those who adopt children, and couples who have twins, triplets, or more when they plan for just one child.

What we are trying to encourage is a change in thinking – and for the rich world to lead by example.

Humanity needs to understand that the problem of overpopulation will eventually be fixed whether people like it or not. It will either be fixed by nature, through some sort of ecological or societal collapse, or it can be fixed by choice – by having ever fewer people living peacefully within nature's bounds.

We want to show that it is better for humanity to choose the way, and to make it as positive an experience as possible.

One Percent is Enough

THIRTEEN PROPOSALS TO BOOST AVERAGE WELL-BEING IN THE RICH WORLD

1. **Shorten the length of the work year** to give everyone more leisure time.
2. **Raise the retirement age** to help the elderly provide for themselves for as long as they want.
3. **Redefine “paid work”** to cover those who care for others at home.
4. **Increase unemployment benefits** to maintain demand during the transition.
5. **Increase the taxation of corporations and the rich** to redistribute profits, especially from robotisation.
6. **Expand the use of green stimulus packages by printing money or raising taxes** to help governments respond to climate change and the need for redistribution.
7. **Tax fossil fuels and return the proceeds in equal amounts to all citizens** to make low-carbon energy more competitive.
8. **Shift taxes from employment to emissions and resource use** to reduce the ecological footprint, protect jobs and cut raw materials use.
9. **Increase death taxes** to reduce inequality and philanthropy while boosting government income.
10. **Encourage unionisation** to boost worker incomes and reduce exploitation.
11. **Restrict trade where necessary** to protect jobs, improve well-being, and help the environment.
12. **Celebrate women who have one child or none** when they pass the age of 50 to reduce the pressure of humanity on the planet.

13. **Introduce a guaranteed livable income for those who need it most** and give everyone peace of mind.

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