



Addressing Climate Change:

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January 2011

WBB Trust

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Acknowledgements

This booklet is the result of the conversations that we have had with various people, both in person and over e-mail, as well as several years of voracious reading on the subjects of urban transport, urban planning, and economics.

We are deeply grateful to all those who helped us shape these ideas into this booklet: to our dear friends and colleagues at HealthBridge, WBB Trust, 350.org and elsewhere, especially Sian FitzGerald, Phaeba Thomas, Saifuddin Ahmed, Syed Mahbubul Alam, Marco Vangelisti, Joel Crawford, Carlo Fonseka and Will Bates.

An especially warm thanks to our editors, Kristie Daniel and Lori Jones, for their insightful comments and helpful changes; any remaining mistakes and incongruities are due to our stubbornness and not their shortcomings.

--DE and KM

Introduction

A strange contradiction occurs with climate change. Despite the dire nature of the predictions about how our behaviour is affecting the climate, and all the evidence to date of the serious climate-related problems already affecting us, our reactions to date have been minimal. If climate change is as serious as scientists warn us, then why are we doing so little to respond?

For with the exception of those individuals paid to say otherwise, all scientists are in agreement: people's activities are bringing about a rise in CO₂ levels, and hence climate change, that is already having serious consequences and will likely prove devastating in the not-so-distant future. The World Health Organization estimates that climate change is currently responsible for the deaths of 150,000 people, and for five million illnesses per year, with a possible doubling by 2030 (Eilperin). Yet, with a few notable exceptions, our attempts to address the crisis seem trivial when compared to the magnitude of the threats involved. Why are we doing so little to save ourselves?

Any individual may be reluctant to reduce personal carbon emissions for a number of reasons, including comfort with one's lifestyle, the vagueness of future threats as opposed to the constant inducements to consume, and the inability of any single individual to make any significant impact if others fail to change as well.

But what about our governments? Why, after repeated scientific reports and high-level meetings, do they for the most part fail to act in any significant way? Why do the media treat climate change as a matter of debate rather than fact, and question whether people are responsible for rising temperatures? Why do they continue to divert us with trivial matters when such serious threats to our survival exist?

Among the many reasons for lack of action is the fear that reducing carbon emissions will cause massive job losses, devastate our economies, and involve making drastic sacrifices in our current or future lifestyles...sacrifices that people simply will not accept.

But what if our fears about the changes that we need to make were wrong - not because those changes are unnecessary, but rather because making those changes could actually lead to greater life satisfaction, better health, and more happiness? What if rather than devastating our economies, needed changes could make us wealthier in ways that truly matter, such as access to good jobs and a range of services that are currently out of reach for most people?

What if we did not have to choose between protecting our environment and our economies, between taking serious and effective measures to reduce climate change and keeping people employed and out of poverty? What if the choice between the economy and the environment were false, fabricated and propagated by those who benefit from the status quo and are working hard to maintain it? What if it were the status quo, with high rates of pollution, obesity, poverty and social isolation that were harming us, and the changes needed to reduce climate change could actually lead to better lives? What if allowing economic considerations to justify delays in dealing with climate change was nonsensical, even on purely economic grounds?

Hard as it may be to imagine, the very changes that we need to make - to live more simply, to walk and cycle more and drive less, to devote our energies to people rather than to things - could not only save us from the worst effects of climate change, but could make us more prosperous and happy.

This booklet is meant for those concerned about the future. It is meant to help such people respond to typical economic

arguments as to why we cannot take strong action to reduce carbon emissions. Since much has already been written on climate change, this booklet focuses on economic issues and possibilities: on how to improve our economies and our quality of life while reducing carbon emissions.

The key issues discussed in this booklet include:

- ◊ Whether it makes sense to choose between the economy and the environment
- ◊ Who benefits from GDP growth
- ◊ What GDP growth tells us about jobs
- ◊ Whether consumerism is likely to lead to happiness
- ◊ The perspective of economists on price and value
- ◊ How well our public wealth compares to our private wealth
- ◊ Why we cannot seem to escape from debt
- ◊ Why production and growth seem so important
- ◊ Whether it makes sense to utilise "voting with our pocketbooks" to determine our course
- ◊ Which cleaner fuels or new technologies might save us
- ◊ Whether increases in quality of life and decreases in carbon emissions could go hand-in-hand
- ◊ How to take action to reduce climate change without harming the economy

Environment or economics: What a question!

In his powerful movie *An Inconvenient Truth*, Al Gore helps make clear the frightening reality and extent of climate change. In the movie, Gore shows an image of a scale with gold bars on one side and the planet earth on the other. As he observes, the choice makes no sense: what good is wealth if we destroy our planet?¹ Since the

¹ To be literal about it, we cannot actually destroy the planet - unless of course we blow it up - just the ability for humanity to continue to live on it.

environment is the foundation of life, of course we must preserve it.

But Gore stops there, and the solutions he proposes, such as using more efficient light bulbs and buying hybrid cars, fall far short of the changes that will be necessary to slow or, if possible, reverse, climate change. As to the question he poses, one could respond that of course it is necessary to keep our planet habitable; yet on any particular or specific environmental question - such as saving a species from extinction, preserving a forest or other unique ecosystem, trying to clean up a river or ocean, or reducing our carbon emissions - the environmental benefits must be weighed against the economic costs of those actions. Overall, yes, the environment is more important, but in any single case, economics can still win out.

Yet it is precisely that choice which is absurd. It is absurd to believe that one can "win" on economics while seriously harming the environment, or that the economic victories are worth the environmental losses. This is true even if one cares far more about people than about the environment, because in many cases those economic benefits actually confer very limited if any gains for most people.

Whose economy?

If the economy is measured solely in terms of GDP per capita, then some actions to protect the environment and address climate change can indeed slow economic growth. It is not possible to achieve both unlimited economic growth and genuine environmental protection. Even with the latest technology, economic growth still requires the use of fuel and other non-renewable resources, and generates pollution and waste.

Fortunately, the important question is not whether unlimited growth is compatible with a healthy environment, but rather whether such growth is likely to lead to improved

quality of life. To answer that question, we must see how economic growth is defined, who benefits from its growth, and how we define quality of life.

The truth about economic growth as measured by GDP, as economists Paul Ekins, Marilyn Waring, Joseph Stiglitz and many others remind us, is that the measure does not actually tell us very much that is meaningful about either quality of life or increases in the availability of goods and services that people value. GDP is simply a measure of output, but only certain things are included in that count; what is left out can be far more important than what is counted.

GDP does not tell us whether people have access to affordable, high quality health care and schools or whether cities are safe and pleasant to live in, in terms of crime, traffic danger and pollution levels. GDP does not tell us whether jobs pay a living wage, or whether cost of living is increasing faster than salaries.

GDP measures only some types of economic activity while specifically excluding many others, such as the unpaid work of caring for homes and families. GDP does not differentiate between positive and negative activity; spending resources and employing people to clean up after an environmental disaster or treat injuries from a violent attack are considered just as positive - in an economic sense - as selling essential goods. And when assets (such as forests) are used up to produce wealth, the cost of such activity is not included in GDP, either in terms of current environmental damage or future potential to earn money. When forests are cut down, rivers polluted, land poisoned by chemicals, and natural resources used up at a rapid rate to facilitate economic activity and growth, there is no indication of the environmental and other loss that follows but only of gain from whatever economic benefits are generated.

As for that convenient (for those wishing to avoid challenges to the status quo) measure, per capita income, it may on the surface sound reasonable to use it. Wealth is relative, depending on how many people must share it. But where great inequality exists, averages are useless. Paul Krugman uses the example of Bill Gates walking into a bar. Average income of those in the bar goes through the roof...but the workers have no more money than they did before. That is, GDP per capita tells us nothing about how the wealth generated is distributed. It does not tell us whether that wealth is fairly evenly spread across the population, or whether growth simply means that the wealthiest have even more while others continue to struggle to get by. In fact, as GDP has grown rapidly over the last few decades, so has inequality, both within and across countries.

Even those who have benefited from greater access to a range of goods and services have also lost. People have lost in terms of having to spend more time commuting, more time working, and less time with family. People have lost in terms of living in more polluted environments. People have lost many public amenities, such as parks and open spaces. We have lost much of the strength of our communities and neighbourhoods; we have lost many government services.

There are natural limits to economic growth that we would benefit from both acknowledging and accepting, sooner rather than later. We simply cannot have unlimited growth in a world of limited resources. One country's consumption patterns do indeed affect the rest of the world, just as current behaviour affects the ability of future generations to survive.

As GDP increases, as we rapidly use up our non-renewable resources and pollute our environment, some people do indeed gain. Those who become rich (or richer) may show little concern about the damage caused, just as do others who become rich by gambling with the hard-earned money of others. Would all those who lost their pensions in the

Enron or similar scandals say it's all right as long as a few get to make their millions?

Why should we accept environmental devastation and rapidly rising CO₂ levels in the atmosphere so that a few extraordinarily wealthy people can become even wealthier?

Remember, GDP only tells us about wealth in terms of the things it measures: production of certain goods, provision of some services. It does not count much of what is most important to people. If quality of life is less about what we own and more about our social networks, our connections to others, our time for family, the free provision of quality services by governments, and the availability of clean, safe neighbourhoods for people of all incomes, then it would be easy to improve quality of life even if GDP declines.

Equating the purely financial gains realized by the few with overall benefits for the many is misleading. If GDP growth can mean increased wealth among the wealthiest and no decrease - or worse, increased poverty - among everyone else, why would we agree to destroying the environment and speeding climate change in order to increase GDP? If any economic "harm" from reducing pollution is mostly going to affect the wealthiest minority who can most afford to pay those costs, why should the rest of us worry about those costs? Why protect a system which is nearly as damaging to most of us now, in terms of our chances of maintaining a decent standard of living, as it will be to the chance of survival for future generations?

Jobs

People are understandably concerned about jobs and potential job loss. It would indeed be difficult to choose between preserving existing jobs/generating new ones and acting to reduce climate change. But is that really the choice we face? Is unemployment a result of measures meant to protect the environment, or could acting to

preserve the environment also lead to more (and possibly even better) jobs?

Machines vs. people

Economic progress as it is currently measured tells us little about jobs; GDP tells us nothing. An increase in GDP per capita does not mean that more people are employed, or that salaries have risen, or that the poor have benefited in any way. Rather, it simply indicates that the output measured in GDP (as opposed to all the output that GDP does not measure, like better health or improved welfare) has increased, even if the resulting wealth is concentrated in very few hands.

Yet we all know, or have at least been repeatedly told, that economic growth is needed to create jobs. An economy in good shape generates jobs; one in a recession sheds them. While there is of course some truth to this, it is not entirely as simple a relationship as all that...and it is hard not to notice that in good times, the wealth is far from evenly shared by all, just as bad times hit some people far harder than others.

In a growing economy, one important aspect of economic growth is the shift from relying on labour as the main means to produce goods - and thus to generate profits - to relying on capital (machinery, technologies, and other investments). With more capital investment, labour can increasingly be replaced by more efficient machinery and finally automation. Since output has increased, so does GDP. That these changes may have accompanied a shift in the distribution of wealth, whereby the rich continue to gain and the poor and working classes continue to lose, is not reflected in GDP. The fact of job loss is measured in separate figures of unemployment. Yet when unemployment figures rise, the general response is that more economic growth is needed to generate more jobs. This despite what might be suggested by experience: when machines replace

rather than enhance people, economic growth can actually lead to job loss.

The replacement of people by machines is actually encouraged by some countries' policies that make it more expensive to hire people than to buy the machines that can replace them. While policies to ensure decent working conditions and benefits are of vital importance, when they are accompanied by policies that encourage capital investment and fail to discourage workforce "downsizing" (firing large numbers of employees in order to increase profits), they can actually make it cheaper for employers to use machines rather than people.

Meanwhile, if we don't need much of what we produce and consume - but are mostly concerned about maintaining jobs - then should we really be trying to maximize output? As Schumacher has asked, do we want to increase the output of those already employed or reduce unemployment? That is, do we want to have fewer people producing more or more people producing less?

Machines require fossil fuel to build and operate, and thus typically harm the environment as well as reduce employment. In doing so, they generate costs that must be paid by the very governments that encourage the use of those machines. Meanwhile, more labour-intensive methods of production, using human effort rather than fuel, can be better both in terms of generating jobs and reducing harmful effects on the environment. Regulations could work to encourage producers to rely more on labour and less on capital; often they do precisely the opposite.

The role that mechanization plays in improving efficiency and output mainly benefits the owners, not the workers; replacing people with machines is bad for people as well as for the environment. We could use our machines to allow us to work less and consume more leisure, rather than

always being pushed to buy all that our machines constantly create.

Government regulations

Of course, the issue of jobs and the economy is not only about people versus machines. Government regulations, or the lack thereof, can also play a significant role in determining how labour is used. Businesses often complain that government regulations designed to save the environment or enhance working conditions make it too expensive to remain profitable. Yet when such regulations are weakened, businesses may still fire workers anyway. No matter how large the government handouts, businesses still act to increase their own profits, often by shifting operations to somewhere where there are even weaker environmental and labour protections or higher tax breaks.

Meanwhile, the dismantling of a whole set of government regulations meant to stabilize the economy can mean disaster in terms of employment. This happened in the case of the devastating Asian meltdown in the 1990s, and more recently in the United States. Policies put into place decades ago, including deregulation of the banking sector, made possible activities that allowed people to earn a lot of money very quickly in very unstable ways; such policies were largely responsible for the following crash in both Asia and the US.

That is, government regulations, rather than hurting employment, can often help or protect it by preventing the high-stakes gambling that can bring down entire economies. Dirtying the environment or denying workers basic protections are not the best way to help the jobless. Keeping the minimum wage absurdly low helps companies, not workers. Regulations to prevent various unethical and irresponsible ways of making money, and guaranteeing fair pay and treatment of workers, would do much to help workers. So would policies that encourage hiring and

retaining workers and that penalize downsizing, outsourcing, and off-shoring (moving production to other countries and shifting the supposed base of the company to an island to take advantage of low salaries and tax breaks).

Thus the problem with GDP, and with other measurements that fail to distinguish between production and employment, is that they encourage us to believe that if "the economy" benefits, more people will gain jobs. They tell us that businesses should be allowed to shed workers and destroy the environment because, eventually, the money thereby generated will result in the creation of new jobs. We are encouraged to pay now and benefit later (though the encouraging is usually done by those who will benefit now and never pay).

We should be wary of accepting the idea that somehow economic growth will replace lost jobs, because experience has taught us that it often does not. The money generated by shedding workers or bypassing pollution control measures could have gone to creating new jobs; instead, it often simply goes to making the rich richer. Bailout programs, meanwhile, often seem designed to help companies and their executives (the ones who got us into the mess in the first place) rather than to benefit the average worker.

A more direct approach to increase employment

Why not seek to increase employment directly by, for example, increasing government jobs in the public service sector, rather than continue to provide billions in handouts to giant corporations in the hopes that they will stop shedding workers? Then we could have both jobs and essential services (better schools and health care, libraries that are actually open when we have time to visit them, enough police on the streets to contribute to public safety, sanitation workers to keep city streets clean, people to maintain our parks, playgrounds, and sidewalks...) as

opposed to more corporate products that we are told we need in order to be happy.

As discussed later in this booklet, the public sector is typically criticized as being inefficient and wasteful; we are told that jobs should be cut. But what is efficient about allowing large portions of the population to be unemployed? What is productive about generating large quantities of stuff that people cannot afford to buy, much of which they do not need anyway, and some of which harms their health as well as their environment? What is sensible about accepting policies that fail to help the poor or middle class, that contribute to climate change, and that widen the already enormous gap between rich and poor?

Economic growth or progress should no longer be considered separately from rates of employment, and from other measures of how well people are faring - not just averages, but how many people are at the bottom, and what that bottom means. Similarly, we should look not just at employment rates, but at the quality of such employment: do workers receive enough to live on without working extra jobs or being below the poverty line? Do they have health insurance, daycare, flexible hours and other benefits? Do people have time for their families, for some rest and recreation?

Less fuel, more jobs

Finally, a question necessarily arises: if polluting activities create jobs, why can't non-polluting ones? More labour-intensive, less fuel-intensive approaches would increase employment and reduce carbon emissions. Similarly, what about all the new industries needed to move us towards a low carbon economy? We could build bicycles and trams rather than cars; we could create jobs in the renewable energy sector; we could use our initiative and creativity to save ourselves from calamity rather than rushing into it.

This is not just theory. An experiment in the Netherlands to compare different growth scenarios found that the one focused on preserving the environment not only did not result in any loss of total jobs, but also led to a significant increase in the share of income going to those doing the work. As Roefie Hueting, in describing the experiment, writes, "In the right conditions, environmental conservation creates employment."

In sum, economic growth is often defended for the need to create jobs even when it actually eliminates them. Government regulations are attacked as causing loss of productivity and thus of jobs, even though regulations can actually serve to make the economy more stable and thus prevent job loss. Rather than seek to benefit large corporations which may or may not increase employment, it would be more rational to engage in direct action to increase employment, such as the government hiring more workers to engage in public works programs that benefit the general public.

So when choosing between economic growth and activities to slow climate change, the employment factor may actually weigh in on the side of reducing fuel use and encouraging labour-intensive practices rather than industrial development. It is also likely to weigh in towards more, not fewer, government policies to protect the environment and workers.

Consumerism as the highest virtue

No doubt about it, shopping can be pleasant. The authors of this booklet enjoy it as much as most people. We understand the pleasure of surveying the possibilities, making a choice, and in many cases, the continuing pleasure and utility of what we buy. We enjoy both having money and spending it. But there is a world of

difference between the pleasures of consumerism and the belief that it will lead to happiness. While insecurity about money certainly leads to unhappiness, the possession of large quantities of "stuff" does not automatically produce happiness, nor do objects typically bring lasting pleasure. Rather, it is our social interactions that keep our spirits up and make us feel good.

Some of what we most enjoy in life are the so-called simple pleasures: visiting friends, taking a walk in the park, playing with children or a pet, relaxing with a book. Yet what do we feel compelled to do when we are lonely, depressed, or unfulfilled? Go shopping.

Despite these facts and the underlying discontent many of those with high incomes feel with their consumerist, materialist lifestyles, consumerism is still broadly accepted as the basis of the economy. If people do not continue to spend money, how will other people earn it? Every year before Christmas, for instance, people are encouraged to do their duty as consumers, with much concern expressed when spending is low. People are saving too much! How do we get them into the stores, making purchases??

Certainly our spending can result in positive social change when we make most of our purchases from small, independent, local businesses. We can make choices that are better for the environment through reduced consumption and by choosing genuinely environmentally-friendly products (as opposed to those simply marketed as such). Our choices of what to buy are important.

But there is a big difference between trying to maximize the social effects of our expenditures and simply succumbing to pressure to be a consumer. We have crossed that line when we assume that by spending money (especially on the most

advertised products) we are achieving the highest social virtue. After all, is it only by spending money on heavily advertised products that jobs are generated? Might we be able to generate jobs while spending money in socially worthwhile ways instead of on often frivolous items?

And even if our spending does sometimes create jobs, does it really make sense to encourage consumption for the sake of increasing employment? How much of what we spend goes to workers and how much to corporate executives? When using consumption to generate employment, a good deal of waste occurs: much of the money spent goes to the wealthy, and products often damaging to the environment are produced in the process. Might there be a shortcut that bypasses the materialism and leads more efficiently to job creation?

In his book *The Affluent Society*, John Kenneth Galbraith likens the fanatical obsession with economic growth to a squirrel trapped on a wheel. As Galbraith describes it, the system functions by requiring the ever-increasing production of goods for jobs (to replace those lost by mechanization and automation). The resulting products, some more useful than others, then must be sold. In order to be sold, much advertising is needed. (As another unfortunate side-effect, envy is essential: people are not content until they have what the Joneses do...and then the Joneses surpass them again...and on and on the wheel turns.) People cannot afford to buy all the goods they "learn" from advertising that they need, and must take out loans. Banks give credit where they shouldn't in order to keep the system operating, and in the hopes of a government bail-out if all goes badly (but surely that would never happen!).

There is no rest in sight, because there can never be enough consumption. In a quote made famous by the video *The Story of Stuff*², economist Victor Lebow³ wrote, "Our enormously productive economy demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfactions, our ego satisfactions, in consumption. ... We need things consumed, burned up, worn out, replaced, and discarded at an ever increasing pace."

People are never allowed to feel that they own enough; they must always buy more to keep the system moving. While people enjoy some of their stuff, they may also feel burdened by the quantity they possess and the continuing pressure to buy ever more. Meanwhile, those in lower-income countries are often eager to match this consumerist lifestyle. However, American levels of consumption would be impossible to sustain at a global level; there simply isn't enough fuel, enough raw materials, and enough capacity to absorb all the waste and pollution.

Meanwhile, there is a general belief that rising levels of consumption are directly associated with an increased quality of life. It is certainly true that for those who cannot meet their basic needs, more of various products would be better. But is this true no matter how much people already have? General levels of dissatisfaction among many Americans, who consume far more per capita than anyone else on the planet, do little to change this belief. But is it possible that simply consumption alone, regardless of what is being consumed, can bring about happiness?

Advertising works by creating feelings of inadequacy; consumerism in turn works via advertising. (If people were simply buying what they want, why would so much advertising be needed?) When people feel good about

² www.storyofstuff.com

³ "The Real Meaning of Consumer Demand" in *The Journal of Retailing*, Spring 1955.

themselves, they will not keep buying things they do not need. As people are exposed to more advertising - on TV, in the streets, even in the schools⁴ - it is unhappiness, not the opposite, that is generated most effectively.

As social critic Neil Postman and others have observed, while advertising is partly about choosing one brand over another, there are two further overall goals. The first is to promote consumption of a particular product (regardless of the brand). The second is to convince people that consumption is the direct path to happiness.

At lower income levels, when consumption mainly involves basic goods that people need to obtain a certain minimum level of health and comfort, more may indeed be better (to a point). Beyond that, much consumption is unnecessary and wasteful, and fails to deliver much pleasure. This is the difference between buying the latest expensive toy which a child plays with for a few days and then breaks or abandons, and buying your child a bicycle to ride to school and beyond; or a pair of shoes or a winter coat that are vital to comfort. One may be pleasant; the other makes all the difference.

And just how essential are many of the products currently being sold? Just how much variety in chips, soft drinks, or pre-packaged cracker-and-peanut-butter sandwiches is needed for happiness? Just how many brands of electronic goods, of mobile phones, of jeans are needed? The range of choices in consumer-oriented societies can be overwhelming and actually stressful for the consumer: with so many choices available, how is one to decide? People's time and decision-making powers would be better spent elsewhere; fewer choices could actually be conducive to more contentment.

⁴ For example, Eric Schlosser describes how fast food advertising has penetrated schools in the US.

Meanwhile, not only does technology often reduce rather than increase jobs, but new injections of technology tend to lead to higher profits for companies rather than to more useful goods. "Planned obsolescence" means that companies know that the "new" "latest" product - the mobile phone, digital camera, or personal computer - that they are making will soon become obsolete, and have already started producing, or at least designing, its replacement.

How satisfied can the consumer be who is constantly trying to keep up to date with designs that constantly change? If companies use technology to a) reduce the number of employees and b) sell more products, how does the average consumer benefit? Were people really worse off when their appliances lasted for ten or twenty years rather than two or three?

Economists citing Adam Smith's *The Wealth of Nations* like to say that selfishness gives rise to the common good; by looking out for their own interests, people contribute to the welfare of everyone else. By being a "good consumer", people contribute to the economy. Similarly, although those producing goods do so for their own good not that of others, in the course of enriching themselves they also enrich the lives of others. In this scenario, the best way to help the economy is to encourage self-interest: people spend money on themselves while others compete in the marketplace to provide goods and services. Self-interest, not government control or intervention, is what will be best for the economy - at least according to most economists.

While it is certainly true that there are some benefits to be derived from selfishness, it is not particularly difficult to create a long list of reasons why it is not wise to base the economy, and much else, on selfishness and competitiveness to the exclusion of cooperation. Nor is it difficult to see why meaningless consumption can be disastrous not just to the environment but to our contentment.

In other aspects of life, impulse control, planning for the future, and concern for others are considered virtues. Most people would not consider it wise to focus on short-term wishes at the cost of long-term needs. "I don't feel like going to work today" may be a common sentiment, but one on which most people know better than to act. Impulse control contributes to keeping people employed, which is generally considered a positive thing. Being generous to others, with our possessions or time, may be scorned by some economists but by others is, not unreasonably, considered to be one of the foundations of civilization.

To consume or not to consume is not the question. Rather, we should ask whether we will continue to defend high rates of consumption despite negative effects on the environment, despite high levels of debt, and despite continuing poverty among the lower classes and insecurity among the middle. We might begin to see that some of the actions needed to address climate change could, far from harming the economy, help free us from our enslavement to Madison Avenue. Could we live more fulfilling lives if we rid ourselves of the belief that whatever our problems and dissatisfactions, the only solution is to go shopping?

When consumerism is considered to be a high virtue, it becomes extremely difficult to recognize, much less descend from, Galbraith's squirrel wheel. It is not only philosophers and moralists who shake their heads in despair; anyone with a slightly long-term vision must see that destroying the wealth of tomorrow in order to satisfy the petty desires of today is not wise.

What things costs versus what they are worth

Classical economists would have us believe that the true value of any product to its user is directly related to its price. What costs more is worth more; expensive items deliver more benefit to the consumer. Further, prices are set by demand (and supply) and are a far less arbitrary measure than any attempt by, say, the government at deciding what products are truly necessary or beneficial - decisions that reflect the bias of those few deciding, rather than a reflection of the wants and needs of consumers via their purchases.

Similarly, salaries are supposedly based on what people contribute. Low salaries reflect a lack of skills; the more rare and valuable the skill, the higher the salary. Sounds good thus far... But just as a question arises when valuing caviar above bread or a diamond ring above a winter coat, so with salaries.

According to such economists, the difference between a poor person buying a bicycle for transport or food for survival, and a wealthy person buying an expensive car or luxury food items like caviar, is that the wealthy person spends more...and thus makes a more valuable economic contribution. Oscar Wilde famously said that the cynic knows the price of everything and the value of nothing; the same criticism has, for this very reason, been levelled against economists.

In the US, for instance, a child care worker may earn around \$21,000 while a computer engineer can easily make four times as much. Do we consider computers more valuable than our children? Do we really believe that athletes, ad executives, and movie stars make a larger - and more important - contribution to society than do social workers, teachers, or nurses?

Or do salary levels, as economics professor Moshe Adler writes, simply reflect power - the ability of higher-level workers to negotiate or set their own salaries, which the bottom rungs are powerless to do?⁵ Do they simply reflect the inevitable irrationalities in a supposedly rational system? As for the importance of work to our daily existence, it is clear that many of the most essential tasks (growing our food, cooking our meals, cleaning our homes, removing trash from our cities, maintaining our sewers, caring for people, teaching our children) are among the worst paid.

Economists fail to acknowledge declining marginal utility: that as one obtains more money, the purchases one makes are far less important for the individual than those made by people scraping to get by. According to many economists, \$100 is the same to all, however rich or poor, as \$100 buys the same basket of goods.⁶ (This is only one of many places where the purpose of an education in economics seems to be to knock common sense out of its students.)

If economic growth is our ultimate goal, and all that matters is the amount of wealth being generated (regardless of who benefits and how, or of the damage we do to our planet) then it is not hard to imagine an outcome whereby all economic activity is focused on a minority of very wealthy people. How far away that day is can be guessed by certain trends towards intensive advertising of absurdly high-end luxury goods in the midst of overall economic decline.⁷

⁵This is related to the fact that it is the well-paid who set the system of wages and benefits, and who make the policies, by which all must live. One suspects things would be different if the poor had more say in economic policy. Similarly, it is not the losers who write the history books

⁶In fact it doesn't; the wealthier can afford to save money by, for instance, buying in bulk and traveling farther to get better deals. As many have observed, it is expensive to be poor.

⁷Paul Krugman offers the admittedly rather extreme case of \$11,000 a night hotel suites. Other such examples, more moderate but still out of the reach even of the majority of the wealthy, abound.

When economic progress looks only at the total flow of money in the economy, there is no effort to encourage the purchase of environmentally- or socially-beneficial products over others. It does not even matter to economists how many jobs are generated, or whether some of those jobs are to undo the problems created by the consumption in the first place; what matters is the flow of money. This leads to a system, patently absurd as it is common, in which tobacco, soft drinks, and fast food are considered to have the same intrinsic value as fresh produce and other healthy foods; where cars, because they are expensive, are considered to be more important and valuable than bicycles. Walking, generating no wealth other than good health and (in conducive environments) enjoyment, is considered worthless.

Such a system of priorities with no thought for consequences leads to obesity, pollution, traffic congestion, high rates of traffic injuries and deaths, and the loss of green space and forests - and subsequent spending to address those very same problems. This approach is not only morally and practically wrong. It is untenable given the severity of the threats posed by climate change. That is, details matter: consumption of essential goods is more important than of luxuries, and environmental protection is a necessity, not a luxury.

Public poverty and private prosperity⁸

The obsession of neo-classical economists with private spending to generate broader economic wellbeing is matched by a bias against government spending or regulation. The theory is that consumers vote with their pocketbook, choosing to purchase quality goods and services, thereby ensuring that only what people actually want and need continues to be produced. Unwanted products will not be purchased; the consumer thus determines the course of production.

Consumer spending is viewed as a great economic stimulus both because of the jobs it supposedly creates and its influence on producers. Government spending, on the other hand, because it is under no such pressure, is considered wasteful. Taxes are labelled a net drain and are said to generate bureaucracy, corruption, and waste. The role of the government in the economy should be as small as possible, say the economists, as government regulations interfere with the workings of the so-called free market⁹ and prevent consumers from getting what they want. Private and personal spending should be encouraged and enabled by keeping taxes low, economists tirelessly preach.

It is, of course, easy to find proof this is true. Governments do waste money, can be corrupt (though it helps to remember who corrupts them) and do pass many absurd and harmful regulations. Of course one of the main complaints people have about governments is that they serve powerful interests rather than the public...a complaint which should be directed at least in part against those powerful interests and the undue influence they exert. Corporations, meanwhile, can indeed be more

⁸This section draws heavily on assorted books of John Kenneth Galbraith, listed in the references.

⁹Which, given all the supports, subsidies, industry lobbying, control by large corporations and so on, is anything but.

efficient in some matters, and certainly are far better at providing attractive services (at least to those who can pay).

But we do not judge governments and companies by the same standards. We expect companies to act in their self-interest and government to act in the public interest. Nobody expects makers of fast food or soft drinks to be concerned about their effect on public health. We may be annoyed at appliances that break after only a few years, and at laptop computers that are considered obsolete after just 2-3 years, but we continue to buy the products, often from the same companies. We can even forgive oil companies their spills, regarding such spills as a necessary part of our enjoyment of our cars. Our anger is directed against politicians, not corporate executives; we vote the former out of office while blandly watching the latter award themselves millions of dollars in bonuses even when they contribute to destroying our health, firing our friends, and raising an absurd "debate" about the reality of climate change and our/their responsibility for it.

Meanwhile, as Galbraith writes in *The Good Society*, there is one large caveat in such neo-classical thinking about the limitations on government spending: some forms of government subsidy for the very wealthy are not only acceptable but mandatory. Despite all the talk of small government and of public spending being wasteful, government subsidies to private corporations are common, and are in some cases the basis for the very profitability of corporations.¹⁰

¹⁰To learn more about one of the organizations addressing this issue, see the Community Environmental Legal Defense Fund (CELDF), www.celdf.org. CELDF is helping communities write local constitutions stripping corporations of personhood rights and granting rights to nature, and they helped Ecuador enshrine the rights of nature (Pachamama) in their latest constitution. For another example, Vandana Shiva is now suing BP under the Ecuadorean constitution for violations of the rights of nature. (Thanks to Marco Vangelisti for providing these examples.)

Those subsidies take many forms. They include a variety of direct handouts and tax breaks. In the case of the car industry, government subsidies come, for example, in the form of building roads and highways, and creating zoning laws that mandate the provision of parking and force people to travel farther to reach shops and workplaces - while often failing to provide high-quality low-cost public transport or decent facilities for walking and cycling. Governments subsidize the packaging industry by providing waste disposal. Governments subsidize appliance manufacturers by ensuring an ongoing supply of electricity, at whatever cost to the environment and public safety. Governments subsidize tobacco, fast food, and soft drinks by paying for the health care to treat the diseases that such consumption causes.¹¹

In addition to the direct subsidies are all the conditions that allow businesses to work in ways that are destructive to the environment and to the health of employees. Barbara Kingsolver and Michael Pollan, among others, have written about Concentrated Animal Feeding Operations (CAFOs). CAFOs generate enormous amounts of waste including CO₂; they could not operate if government regulations on air and water pollution were sufficiently strict.

Government spending on military, on bailouts for banks and auto manufacturers, and on tax breaks for multinational corporations are considered important because they keep the economy going; government spending on public services or (most especially) the poor, on the other hand, shows no demonstrable economic return and therefore is not acceptable.

¹¹ One remarkable exception in the US was the settlement between the states' Attorneys General and the tobacco industry whereby the tobacco companies were considered responsible for increasing health care costs borne by government from tobacco-related disease. Similar attempts in the US at litigation against fast food companies for the health problems they contribute to have been blocked by a pro-business government.

The results of a system which encourages private while discouraging public expenditure are easy to see. John Kenneth Galbraith writes of tremendous public poverty co-existing with previously unimagined private prosperity, pointing to the condition of government schools, health care, the police force, parks, playgrounds, sanitation services, public transport, and programs for the poor in contrast to exclusive gated communities, the fascinating variety of computer games, and the plethora of other luxury goods available for those who can afford them. We have accepted as normal that private wealth will co-exist, even on the same street, with public poverty.

What happens when we believe that private expenses are good and government expenditures wasteful? Again citing Galbraith, investment in machinery is considered positive while investments in education are viewed as wasteful. It is seen as good to teach accounting and wasteful to teach the arts. Educating children is unproductive, but building toilets for schools is productive.

Then again, in a system based on selfishness rather than solidarity, on competition rather than cooperation, why worry about what happens to the losers?

Why are people so willing to accept that private consumption is more important than public, even though we all must share the public places and many of the public services? Why are we so eager to have even minor tax breaks when they mean the loss of much-needed government services? As Galbraith writes, companies create wants through advertising, while the "ready-made wants" (such as for education, health, and other government services) are expected to compete in a "free and open" marketplace. It is easy to convince people that it is better to spend money on commercial products than on taxes, but that does not take away from the problems people face with the often low quality of public services.

Back in the days of Reagan and Thatcher, much effort was made to ensure that people would learn the basic lessons that Government is Bad and Big Government is Terrible; those lessons continue to this day. People are repeatedly told that government is unproductive, inefficient, and corrupt while business contributes to national as well as personal wealth, creates jobs, and keeps the nation's economy growing. Government and bureaucracy, the media gleefully inform us, mean slow-downs, inability to achieve basic tasks, and meaningless rules...the broken cog in the wheel that prevents the train of progress from rolling smoothly.

There is, of course, a level of self-interest in accepting this argument, which may be why it has proven to be so palatable to so many, despite obviously disastrous consequences. After all, if government is bad then why pay taxes at all? Smaller government means lower taxes and thus more money to spend on oneself. Who could argue? Unfortunately, "small government" and "deregulation" have actually led to a further enriching of giant corporations not only at the cost of a healthy environment but at the cost of government services, employee protection, and, in many cases, secure jobs that pay a living wage.

There is a big difference between government spending on a common good such as schools and health care, and on private subsidies to large corporations. Even if an individual never uses a government service, virtually everyone benefits when the population is healthy and well-educated. Government spending on the common good should be encouraged; similarly, regulations which improve the physical environment should be recognized as essential for our quality of life.

Pollution lowers quality of life; pollution, not its control, should be regarded as an avoidable cost to be reduced. Measures to reduce climate change, rather than being seen as a cost or a brake on the economy, should be regarded as essential services to ensure a liveable future. George HW Bush's famous slogan of "Read my lips, no new taxes" (that is, enormous tax breaks for the rich and slashing of services for the poor and middle class) should be amended to "Read my lips: vastly improved public services."

It does not make sense to treat private spending as beneficial to the economy and government spending as wasteful: both forms can stimulate the economy. And while private spending can lead to private benefits, it is also true that people inhabit common places. The physical condition of the neighbourhood, the quality of local services and the health and wellbeing of the other residents affect people in many important ways. People's standard of living increases not just by buying products and services, but when public goods and services such as schools, health care, street cleaning, park maintenance, libraries, and so on are accessible and function well.

Community is stronger when its members have access to good jobs, when people are well looked-after and those in need are served rather than shunned. An obvious example is the situation of those in the US without health insurance or without adequate insurance. The major cause (responsible for about half) of individual bankruptcies in the US is health care costs (AP). The US spends far more per capita on health care than any other country, yet life expectancy is actually lower than in some countries which spend far less. Life expectancy in Canada, France, Germany and Britain - all spending half or less per person what the US does - have from one to almost three years higher life expectancy (Krugman).

As Nobel Prize in Economics winner Paul Krugman has eloquently described, not only could we have universal coverage in the US if the government became the sole payer, but administrative costs would be dramatically reduced, making the entire system not only more fair but also less costly. Importantly, this would not only improve health and reduce bankruptcy but also eliminate a major form of stress: only some will ever need the insurance but all who do not have it worry in its absence.¹²

In fact, people derive much use and pleasure from services that are traditionally offered - and paid for - by governments. People are not profit-seeking entities concerned only with the bottom line or with increases in personal power and wealth at the expense of the rest.¹³ Compassion, well-being and happiness do have value to people and cannot be purchased in the marketplace. Government services such as sanitation, education, health, and parks are all important for health and happiness.

Many people would prefer to live in a more compassionate society where the poor have the chance of a decent life and where all people are considered valuable, regardless of apparent ability or income. Or as John McKnight and Peter Block put it, where the gifts of all members are recognized, acknowledged, and sought out. A further benefit would be reduced crime and expense for the justice system, prisons, and all the other effects of social injustice and related criminality.

¹² The extent to which the Obama health care plan will resolve these problems remains to be seen. As Krugman also describes, the media has strong incentive to portray any government-funded program as inefficient and of low quality, due to concern that a successful program would restore faith in government provision of services to the poor and middle class, paid for by (heaven forbid) the wealthiest.

¹³ Some people of course would seem to be, but they are obviously a minority; while many people might claim they would like to be hard-nosed, selfish, and uncaring, they tend to show far more humane characteristics in their daily encounters.

Which is all to say that if we remember that government plays an essential role in our lives and economies, it may seem reasonable, even essential, to issue and enforce strict regulations that protect the environment (and public health) from the actions of corporations. The threats posed by climate change mean that government action is needed. No longer can we view government action as an unaffordable and inexcusable cost. Rather than viewing government spending as wasteful and government action as hindering the economy, we could encourage government intervention to improve the public realm, the environment, and - as a result - our lives. We could reduce climate change and lead a more secure existence.

There is, alas, one caveat here. As long as large corporations maintain undue influence on government due to their financial contributions and the revolving door that exists between corporations and governments (with many people moving easily and repeatedly between both realms), we cannot count on government to act in the population's best interests. Actions to free governments from their debts to industry would lead to greater freedom and democracy, and to greater possibilities of slowing climate change and acting in the public interest. Steps such as providing public financing for political campaigns and otherwise reining in industry influence are essential if we are to have a system that benefits the general public, not just the wealthy elites.¹⁴

¹⁴ It is also helpful to remember, in terms of corruption, that while government officials may accept handouts, it is usually businessmen who provide them. Meanwhile, when businesses overcharge for goods and service, we label the surplus as profit; if governments do the same, we label it corruption.

The role of debt

As discussed above, what so-called free-market capitalism means in practice can be summarised briefly as follows (with some sacrifice in accuracy in exchange for simplicity): People work hard to produce various products, some of which it would seem that nobody wants. Companies spend a lot of money (via advertising) to convince people to buy them. Since most people are not paid enough to purchase all that they are taught to believe they need, they take out loans to purchase them (this includes instalment purchases, use of credit cards, and bank loans). Debt is thus inevitable. Under such a system, a growth in living standards is often accompanied by a growth in debt. Some consumer products, such as cars, are almost entirely purchased through debt. How then are people to buy all these consumer products in countries where there is a lot less money? If the only way to improve the economy is through consumerism and debt, then a serious problem exists.¹⁵

The system may work well for some, but consider the fear and tension faced each month by so many about paying the credit card bill. And when the whole system relies on debt to ensure consumption, there will surely be pressure to give bad loans, leading to an unpleasant choice when banks fail: bailout or crash? Can we really call an economy healthy which relies on high levels of debt?

Then there is the obvious inequity in handing over bailout money to companies and banks as opposed to helping the individuals most directly affected (and who, unlike the recipients of government charity, are not to blame for the problem). Rather than bailing out banks in the US, what if some of the money had gone directly to people to help them

¹⁵ It also gives rise to an unsavoury outcome, wherein the main goal of some sellers is roping people into debt so as to collect monthly interest payments. Some people may even sell products at a loss, as the most profitable business of all is collecting all the money people spent servicing their debt.

keep their homes? What if rather than bailing out car companies, money went into unemployment insurance or was even used to give the unemployed jobs providing public services such as fixing sidewalks and cleaning up parks? Why is it acceptable for individuals to go bankrupt in large numbers, but not for the businesses and banks which contribute to the problem to do so?

The nature of the system is highly unstable, a house of credit cards. Or as Galbraith pointedly asks in *The Affluent Society*, "Can the bill collector or the bankruptcy lawyer be the central figure in the good society?" Would we really be worse off with less debt...and less CO₂?

Given all these problems, why the preoccupation with production and growth?

It is perhaps an understandable folly to believe what you are consistently told. When everyone seems to agree that the only way to ensure that there are enough jobs to keep the economy "afloat" and to achieve an increase in, or at least maintain, standards of living is through economic growth (fuelled by endless production of often unnecessary goods), then the system is very difficult to challenge.

But the passion of those making the argument about the need to constantly pursue economic growth may have more to do with self-interest than with being right. When people argue that policies to reduce climate change would harm the economy, might they really mean that such policies would harm their own profits? When the oil, roads, and car industry pay scientists and the media to tell us that climate change is an imaginary threat, is it wise to believe them?

Just as the rich never argue that they want tax cuts because they dislike paying taxes, so those fighting policies to reduce climate change on the grounds of job loss or economic slowdowns are likely hiding their own self-interest. Here is a simple test: do those who claim concern

for job loss refrain from downsizing, outsourcing and off-shoring? Do those who claim concern for the economy refrain from taking multi-million dollar bonuses and spend the money instead on, say, providing generous benefit packages and pension plans to their employees, including the lowest-paid?

In addition (and related) to self-interest, another reason for the focus on economic growth is that it avoids the otherwise difficult question of addressing poverty and inequality. As anthropologist and physician Paul Farmer has written, people can cheerfully exclaim that they object to poverty, not inequality; it isn't that the rich should have less but that the poor should have more. To divide the pie more equally would mean "taking away" from the rich - something to be avoided at all costs. (Though as Paul Krugman, Moshe Adler, Lizabeth Cohen and others have written, there have been times when efforts were made in the US - successfully - to increase economic equality.) Hence all the explanations of why more equal distribution can never work to reduce poverty and why instead one must bake a bigger pie. This, the reasoning goes, is how we can have it all: nobody need sacrifice anything, and the poor can eventually get what they need while others continue to enjoy their wealth.

There are a couple of problems with this line of reasoning. For one thing, as economist E.F. Schumacher has observed, there unfortunately never seems to be a stage at which the rich say "we have enough" (or, in the words of a rich person in a cartoon regarding his big house and car, "It's too much, but is it enough?"). As the pie continues to grow, the rich will still want a bigger share. As the middle class seeks to emulate the rich and demands more, what will be left for the poor?

Furthermore, the emphasis on ever-increasing production, on an ever-bigger pie, is devastating to the environment and to our natural resources. It contributes to climate change

and to our seeming inability to slow down, to emit less CO₂, to heed the dire warnings of climate scientists.

If someone's proposed solutions coincide with their self-interest, it is worth considering whether it is the passionate attachment to their own interests, not the strength of their supposed convictions, which explains their position. When the wealthy argue that fairer distribution (including the wealthy paying higher taxes) will not reduce poverty or make the middle class more stable, we should not take them at their word. And when we define our self-interest to include the preservation of the environment for current and future generations, we should stand up for that so-called self-interest. We should not, nor can we afford to, allow more selfish voices and short-sighted interests to prevail.

The futility of democracy

Yet another common argument used to maintain the status quo, to avoid acting to save the environment or to reduce carbon emissions, is that people vote with their pocketbooks: the market reveals what people want and it is wrong to impose other values. It is undemocratic, so the argument goes, to try to force conservation-minded decisions on people. Only a nanny state would impose absurd and burdensome rules that hamper the movement of businesses in an otherwise free and democratic society. If people live in suburbs, drive SUVs, and eat fast food, it is because that is what they choose, what they enjoy. The government has no right to dictate how people live, we are told.

But as mentioned above, the idea that the world is the way it is because that's what people want, as demonstrated by their purchasing patterns, suffers from a few not insignificant shortcomings.

First, when we allow decisions to be made in the marketplace, the rich get more votes than the poor. This may not bother everyone, but it is hardly democratic (which is, ironically, one of the arguments for the "free" marketplace). A few people's desire for a golf course becomes more important than the desire of large numbers of people for a park that is free for everyone. The choice is not merely one of preference; when urban residents do not have access to parks, their physical and mental health suffers; guess who is left to pay the bill? A system in which the desires of the rich are always given more attention than the needs of the majority may appeal to some, but it can hardly be called either democratic or civilized.

Second, there is typically no way to communicate demand via the marketplace for many of the goods and services that people most value, such as clean air, pure water, attractive parks, and quiet surroundings. If what is not for sale is considered to be of no value, what sort of environment do we create for ourselves?

Third, we are dealing with a highly uneven playing field. Government subsidizes such things as electricity, roads, large suburban homes, and agribusiness, while doing nothing to support the alternatives or, worse, making them nearly impossible to achieve through, for example, zoning and arcane food processing regulations¹⁶. If people cannot walk or cycle out of fear of being run over by a car or hit by a car door, if government services are so poor in inner cities that people flee to the suburbs, if industrial food receives substantial subsidies and unprocessed food (often grown locally and without chemicals) receives none, how are we to understand what the consumer *really* wants?

¹⁶ As to how food regulations harm those who are producing clean, safe, nutritious and delicious food that benefits the environment (and thus in many ways poses a challenge to the enormously powerful food industry), see Pollan. When we argue for more regulation, we mean regulations typically opposed, not supported, by large corporations.

Fourth, public services - schools, health care facilities, parks - do not advertise in the way that many (though by no means all) companies do. Advertising does not usually provide any useful information to potential consumers, as the content of most ads should make clear. Ads are about persuasion, based on methods that have little or nothing to do with reason; for the most part ads simply link products to feelings (and often sex). Ads create insecurity (about not having the product) or a sense of fun (that would ensue if one owned the product), and people are drawn to the product by the emotions that the ad evokes in them.

One must ask, if people are buying what they truly want and need, why do they require so much "help" from advertising? People do buy products that are not advertised, like fresh produce, but how well does fresh produce compete against fast food, or tap water against bottled water and soft drinks? And how well can government services compete against commercial products, or the government's need to raise taxes against companies' desire to sell ever more products?

One last point, although no doubt there are many more. Authors such as Naomi Klein, John Perkins, and Noam Chomsky have demonstrated that what people want, however clearly they express it, is often disregarded because it fails to align with what the most powerful forces in a country consider desirable. Politicians rarely conduct campaigns based on serious issues such as climate change. And even if politicians can be found to speak out for the need for action to address climate change, the result may fail to materialize due to such reasons as post-election reversal of policies due to political pressure. In the more extreme cases, politicians actually do attempt to bring about tremendous and popular change (such as land reform in Latin America) and are removed by that time-honoured method of assassination.

Who can talk about democratic decisions, independent choice, and voting with our pocketbooks in such a skewed system? How do we understand what people would want if they were not influenced by the popular media, which is in turn controlled by large corporations? Is it not possible that the vast majority of people would like to see a sustainable future for their children - and more leisure and more pleasant, cleaner, and safer environments for themselves and their families - if only there were a way to express that wish? As Pollan reminds us, sustainability is an overused word that causes us to forget its actual meaning: what is not sustainable eventually collapses.

Don't conservatives worry about the future?

Given the calamitous predictions about climate change, why do many conservatives, owners of large polluting industries, and others seem so unconcerned? Why do such people spend so much time and money trying to convince others that climate change is not a serious issue, or is not caused by people's actions? Why, despite the fact that essentially all serious scientists (those, that is, who do not accept money to argue the contrary) agree that climate change is a real and major threat created by our actions, does the mainstream media continue to question the reality of climate change?

Apparently many people believe that no matter how much of the planet becomes uninhabitable through climate change, the extremely rich will always be able to afford to live in areas where people can not only survive but prosper. Countries currently too cold to support life in any comfortable way might become quite attractive, and the soils might be quite rich where there has not yet been much or any agriculture. So what if everyone else goes under, as long as the very wealthy survive?

It would be more pleasant to believe that concerns about the profits of today have simply blinded people to the issues of the future. Whatever the reason, it is not wise to take the advice of those who are far less vulnerable to catastrophe and who perhaps willingly refuse to take a realistic point of view of the problem. They might survive, but what about the rest of us?

Towards cleaner fuels or "won't technology save us?"

Popular (corporate-controlled) media typically have two responses to climate change. One is to downplay the severity of the threats and to claim that what changes are occurring in temperatures, and severe weather like flooding and tornadoes, have nothing to do with people's actions. The other is to suggest that life can go on as normal - that we can continue to consume (and pollute) at current or higher levels, so long as we switch to cleaner fuels or better technologies. People can still commute long distances, eat foods grown a thousand miles away, the media suggest. There is no need to regulate companies or reduce fuel use. We will, the media tell us, simply switch from coal to solar power, change our light bulbs, and transition from petrol to electricity to power our cars.

There are, nevertheless, a few problems with this "business as usual" approach.

For one, most "cleaner fuels" are anything but. That is, either they aren't cleaner, or they aren't fuels. Any crop that is used for fuel requires fuel to grow and harvest, and takes away precious farmland from food crops. In some cases, there would actually be a net energy loss when one subtracts the energy harvested from the amount of energy required to harvest it. Hydrogen cells are simply holders of power; they still require an energy source. Electricity is clean at the source of use, but must be generated somehow, often by coal.

It helps to remember that nature operates in systems while technology is reductionist: that is, technology is treated as if it stands alone, not considering its effects on anything else. One action does affect others; systems are interdependent. Taking apart a system and addressing the individual parts will always be less effective than addressing it in its entirety.

Consider a major contributor to climate change, the use of cars for personal transport. A new technology can address one or even a few problems about cars, such as making them safer for the passenger or reducing fuel requirements, but a technology cannot address all the problems related to car use: traffic deaths, use of precious urban space, air pollution, noise, conversion of farmland into highways, inability of children to walk or cycle safely, obesity, social isolation, and rebuilding our cities to accommodate cars rather than people. Technologies also tend to require materials that themselves harm the environment: solar panels have to be built, and batteries are harmful no matter what type of energy they utilize.

Pollan writes of the benefits of a nature-based food system which can actually improve on nature - but only because it follows the logic of seeing systems as a whole rather than trying to reduce them to a few parts. The industrialized food supply can keep devising solutions to the many problems it creates, but those solutions will only ever be patchwork and address some, not all, of those problems. When, for example, the industry produces contaminated food, treatments are available to make the food safe to eat. But as various people have asked, who wants to eat irradiated fecal matter?¹⁷ And what of all the waste pouring out from

¹⁷ Cows are slaughtered at such high speed in large US meatpacking plants that inevitably some filth from the animals' digestive tract becomes mixed up with the meat. The industry response is not, as one might expect, to slow down the slaughter to avoid the problem, but rather, pardon the slang, to zap the shit (irradiate the meat to kill the germs).

CAFOs, and the chemicals pouring off our agricultural land into our rivers? Sometimes in life there is no shortcut; when the long way turns out to be arduous but better for us in innumerable ways, then taking it is not a bad thing.

Further, cleaner fuels or improved technologies do not go nearly far enough towards resolving the problems posed by climate change. We have set off various reinforcing mechanisms that mean that climate change is soon likely to spiral out of control. We do not have an enormous amount of time left to make changes, and the changes that need to be made to prevent the most drastic calamities are not small ones. It is not enough to change our light bulbs and the fuel sources for our cars; we need to make major changes in the way we live. Fortunately, as described in the next section, those changes could actually *improve* our quality of life.

The reliance on cleaner fuels, meanwhile, fails to consider what would be the wisest approach when addressing an enormous calamity: figure out how to turn it to our advantage and to solve various crises simultaneously. One of those crises, though particularly severe in the US, is spreading throughout the world. It is now abnormal in the US to be of a proper weight; about 60% of the population is overweight or obese. This is a major health problem that is likely to cause a previously unimaginable decline in life expectancy in the US: today's children may not live as long as their parents simply because they are so overweight.

And what are the two main causes of the obesity epidemic? Eating too much and moving too little, which generally means consuming fast food and soft drinks, spending too much time in front of the TV, and using the car to go everywhere. The Director-General of the World Health Organization, Dr. Margaret Chan, has herself stated that the up-side of the climate change disaster is that some carbon-reduction strategies could result in major health improvements.

In addition to the obesity problem there are all the other related problems of high fuel use: traffic congestion, traffic injuries and deaths, cities in which children and the elderly have no independent mobility, streets on which no children can play, noise, and isolation from others. How would cleaner fuels address those problems? In fact a truly quiet electric vehicle actually presents a new threat, as people may not hear it approach. Accidents can happen to anyone, but the severity of the result depends on the mode of transport. Pedestrians bump into each other; even a cyclist traveling at high speed is unlikely to seriously injure anyone he hits. But a car, whether it runs on gasoline (petrol), ethanol or electricity, can easily kill someone if it is moving quickly.

What if, on the other hand, we used the threat of climate change to make the changes to our lives that would make us healthier and quite likely happier? What if people ate less fast food, drank fewer soft drinks, and ate less processed food and more fresh food? More of the money we spend on food would go to farmers rather than to food processors. The environment would benefit due to less packaging and fewer additives, and people would be healthier.¹⁸ What if we watched less TV and thus were exposed to far less advertising? What if we left our cars parked (or never bought one in the first place) and actually walked, cycled (or, when traveling farther, took public transport) to school, work, shops, and other places?

Burning more of our own fuel and less fossil fuel would have an enormous impact in reducing the major cause of ill health and premature death in the US and the second major cause internationally. As Woodcock and colleagues wrote in the highly esteemed medical journal the Lancet, "Important health gains and reductions in CO₂ emissions

¹⁸ The environment (and people) would benefit even more from a switch to eating more locally-grown and preferably organic foods: less fuel to transport food to the table, fewer factory and more family farms, and fewer chemicals, fertilizers and pesticides.

can be achieved through replacement of urban trips in private motor vehicles with active travel in high-income and middle-income countries."

According to the Lancet study, millions of deaths could be averted if people drove less, breathed cleaner air, and ate healthier food. That is, rather than seeking cleaner fuels and better technology, we could put into practice, especially for short trips, the slogan, "Burn calories, not fuel." Here again, if we listen to the media and the advertisers, the response to all of our problems is to go shopping: in this case, for better light bulbs and a newer car.¹⁹ (And for losing weight, there are of course gym memberships, home exercise equipment, diet foods, weight loss plans and so on...all of which cost money, and none of which have proved successful at reducing the obesity epidemic.) Is it mere coincidence that companies and wealthy executive benefit more if we buy all kinds of products to lose weight than if we started walking and cycling more and driving less?

But it gets better, as the next section indicates.....

¹⁹ Potentially a less-polluting car could be better; unfortunately, as cars are made so as to emit fewer pollutants and become (however slightly) more fuel-efficient, people tend to compensate by driving more, so that there is no net reduction in air pollution. It is also important to remember all the pollution generated and water needed to build cars...and the environmental damage caused when disposing of them.

Can we reduce climate change and increase quality of life?

Why settle for something mediocre when we could have something marvellous instead? What if we could reduce pollution, carbon emissions, traffic injury and deaths, obesity, social isolation, depression, mental illness, inequality, and a range of other seemingly intractable problems all at the same time? What if we could have a cleaner environment, dramatically slow climate change, and improve quality of life? Why settle for less when you can have it all?

We have been so inundated with the presentation of false dichotomies that we are like the blind men trying to describe an elephant. But if we can regain the gifts of sight and of logic, and the ability to question vested self-interest, we could instead demand what is best for the majority as well as for our planet. We could actually work our way out of a big mess and enjoy all sorts of additional benefits.

It is difficult to argue that people's quality of life would decline if they ate more healthy food, watched less TV, and spent less time sitting in cars. If we could walk and cycle to our daily destinations, we could potentially save time by combining travel, recreation and exercise in one enjoyable activity...if only our built environment made such activity possible, safe, and pleasant.

Some people might think it is better to have our youth working in fast food restaurants than in community gardens, or that the diseases and treatment costs caused by fast food and soft drinks are worthwhile side effects of the pleasures of consumption. Some may believe that people really enjoy watching TV for four hours and sitting in traffic for two hours each day. Some people no doubt enjoy driving, eating cheeseburgers, and watching bad sit-coms.

But what about the pleasures of walking and cycling, pleasures that people in many cities either never experience or must travel far to enjoy? What about the pleasures of meeting friends and strangers in public spaces like parks and squares rather than passively watching the "idiot box"? It is hard to argue that children are happier being driven to school than they would be walking, if the environment became conducive to walking...and a major shift away from cars to active transport would make the environment far safer and pleasanter for those on foot and on bicycles.²⁰ Yet current cities often only encourage or allow only one type of lifestyle "choice", one that happens to be bad for health and the environment...but beneficial to some major corporations, like those selling fuel and cars and building roads.

What if we worked less and had more time for ourselves and our families? In the US during the 1920s and 1930s, as machines led to a great improvement in productivity, a conscious choice was made. The choice could have been for less consumption and more leisure. As Jeffrey Kaplan writes, those given that option happily sacrificed higher incomes for the sake of more time with family. But the nation took the opposite course: rather than use machinery to gain leisure, the machinery was used to produce ever more...and consumption was then stimulated to ensure a market for all that was produced. Once again, the window of history slammed shut on our fingers.²¹

²⁰ For more information about what a liveable city might look like and how to achieve it, and the importance and charm of public spaces, see the books by Efrogmson and colleagues, available on the HealthBridge website: www.healthbridge.ca.

²¹ Of course, it is only helpful to reduce working hours if employees are paid sufficiently...which is easier when salaries are more equitable and executive bonuses more modest.

We could reconsider the path that many countries have taken, and that many more have only recently embarked on. We could consider whether more leisure and less consumption would perhaps be a good thing. We could question how hard we are willing to work in order to buy the products that advertising tells us that we need.

We could ask our governments to provide us with more services, to hire more people, and to provide more generous safety nets to maintain people above poverty. To pay for it, we could ask for higher taxes on the rich and on harmful products (like soft drinks, fast food, tobacco and cars), and for more investment in infrastructure for walking and cycling, in public transit, and less for cars. We could demand more parks and fewer golf courses; more public amenities and fewer corporate subsidies.

It is time to admit, as many people already have, that it is not entirely ideal for people to live in suburbs far from workplaces and schools. Many people do not love having only shopping malls as places for social interaction. People do not thrive when they cannot walk or play outdoors. While some people may wish to isolate themselves from others and drive everywhere, such lifestyles should not be forced on all; nor, given the negative impact on the environment, should people be encouraged to adopt such lifestyles through subsidies and zoning laws.

All considered, the most exciting and amazing part of the climate change disaster is that solving it could involve not a decrease, but rather a significant increase in our quality of life!

Towards a solution: what if...

As discussed above, much of what we produce we do not actually need, and many of us would benefit from more time with their families and less consumption (and thus lower bills). Or as Galbraith wrote in *The Affluent Society*, "Why should life be intolerable to make things of small urgency?"

What if instead of focusing on production and GDP growth, we started to question how to use our resources more wisely? What if the focus of economic policy were to recognize needs and opportunities for investing in people and improving overall quality of life? What if we agreed that quality of life should be measured not in what people have, but by how healthy, fulfilled, and happy they are?²²

As discussed above, the current system of relying on non-stop consumption backed up by loans to create jobs that are then eliminated through mechanization and automation is hardly a stable one. But is any sort of balance or genuine stability possible without government intervention? Can we really rely on the marketplace to solve our problems when what matters is not total output but what that output consists of: whether the goods we produce improve quality of life or whether they mainly harm our health and the environment.

Purchases that rely on consumer loans and on uncounted but often vast subsidies from government include cars, electrical appliances, and other household and consumer products. Companies produce the products and governments provide the needed assistance in terms of roads, electricity, and protection from environmental standards and the bargaining power of unions. Expenditures that do not rely on consumer loans include

²²The Government of Bhutan is taking the lead in this area, through its use of Gross National Happiness (GNH) rather than GDP as a benchmark for measuring progress. Other governments have shown much interest in following their lead.

government provision of health, education, and other services such as libraries, creation and maintenance of parks and playgrounds, police, and so on.

Not only would shifting the basis of the economy from individual to government spending result in greater stability (despite high debt levels, governments typically find it easier to pay their bills than do many individuals), but it would also involve the consumption of more of the goods and access to more of the services that people value. It would represent the difference between providing generous subsidies for the rich while being exceedingly stingy with the poor. It would mean a shift from an endless, dizzying array of consumer products to a stronger focus on basic services for all, with a focus on the neediest.

Can government "just say no" to products that are absurdly polluting and generally useless? To the over-consumption of unnecessary goods? To policies to reduce the workforce in order to continue increasing profits for the owners and top executives at the expense of the newly unemployed? To excessive production and sale of goods that require extensive government subsidies? "Just saying no" could involve such mechanisms as differential tax rates, bans on some advertisements, and other controls. It could involve a shift in the incentive system so that pollution and job devastation (for example policies that punish hiring of people and reward investment in machinery) would no longer be allowed or even awarded. Instead, governments could actively encourage behaviours that create (preferably good quality and decently paid) jobs, and that benefit the environment and community.

In terms of transport, governments need to stop subsidizing cars and start subsidizing modes that benefit both the environment and public health. High levels of spending on building and maintaining roads and highways, offering free parking, and subsidizing fuel or keeping fuel taxes low encourages the very behaviours that harm our environment

and health. Instead, policymakers need to make investments in infrastructure for public transit, pedestrians, and cyclists. Woodcock and others, writing about climate change and health, write that motor vehicles should be slowed down and more strictly controlled, and that pedestrians and cyclists should gain direct routes with priority at intersections, in order to achieve an "increase in the safety, convenience, and comfort of walking and cycling." That is, changes can and should be made that would reduce climate change and, in many ways, improve health.

Many people are so used to their cars that it is difficult to imagine life without them, or even using them less; for others, it is difficult to sacrifice the dream of future car ownership. Yet many of the trips we take are very short, and many people find commuting one of life's least pleasant activities. What if governments spent less on building and maintaining roads and highways, and instead invested, as suggested above, on quality public transport and on making conditions safe and pleasant for people to walk and cycle? We could get exercise and enjoyment while making our daily trips; children could again walk to school; children and the elderly could regain independent movement. And think of all the money we would save, and the space we would regain, if we were not investing so heavily in cars.

We must learn to address important questions about our priorities. To what extent is consumption important and to what degree do we value health, education, socializing, and leisure? Again to quote Galbraith's *The Affluent Society*, "One could argue that human happiness is as effectively advanced by inefficiency in want creation as by efficiency in production." Imagine having shorter work days, more holidays...perhaps a lower salary, but also less pressure to buy unnecessary products.

We could spend less time in restaurants and more time eating home-cooked meals, less time watching TV and more

in public spaces socializing with others. We could drive less and walk and cycle more. We could have less stuff, and spend more time with people than with things. Such changes may not appeal to everyone, but in the current system they are accessible only to the lucky few. For those who wish to maintain a high-consumption lifestyle, there will always be opportunities to do so. But for those who would prefer something simpler and more oriented towards people rather than purchases, towards interactions rather than transactions²³, why not create those opportunities, especially since it is our only hope for the future?

Beyond hypocrisy

Many of us who are in a position to do something about climate change also contribute more than our fair share to it, in one way or another: by driving long distances, flying frequently, or eating foods from faraway lands. If we feel that acting to address climate change would be hypocritical but hesitate to change our behaviours, we are truly part of the problem. It is impossible to escape hypocrisy entirely and, as social critic Neil Postman has observed, far worse sins exist. Our goal should be not complete consistency - which is impossible - but rather to contribute to the solution.

It may not be ideal to be a "hypocrite": to think, read, talk and work on the issue of climate change even while continuing to emit high levels of CO₂. But far worse than being a hypocrite is to avoid thinking or acting, to consistently turn a blind eye to what is likely the greatest threat to our survival.

It is very difficult to make it through one's life without occasionally doing something "hypocritical"; in fact, the easiest way to do so is by having such low ideals that one

²³ See Efroymsen 2010.

never need worry about violating them. It is obviously better to aim high and sometimes fail than not to try at all; to attempt to do good in some aspects of our lives even if we cannot succeed in all. While it is certainly not ideal to be a selfish person who nevertheless does good for others, isn't it better than being a selfish person who fails to do any good at all? We should not allow our failure to be completely consistent prevent us from working on the issue of climate change. Nor, of course, should we go too far in accepting our inconsistencies; while working on the issue, we should also make a committed effort to lessen our own contribution to the problem. But we shouldn't let our sins prevent us from doing good.

Conclusion

The threats posed by climate change are as real as the solutions proposed by most governments are inadequate and ineffective. Politicians do not wish to risk their careers by making unpopular decisions. The media are controlled by large corporations which in turn are controlled by elites who, if they believe in the reality of climate change at all, appear to assume they can purchase a safe and comfortable future for themselves, somewhere on the planet. Meanwhile, individuals have little motivation to change their behaviour if such changes appear to occur in isolation.

Another major roadblock to change, underlying all the others, is the fear of economic repercussions: economic decline, loss of jobs, a decrease in standards of living. Such concerns prevent people from demanding strong action on climate change from their politicians. But such concerns not only fail to take into account the severity of the threat but also the opportunities provided by that threat to address some of our economic ills and to improve our quality of life. People live under great pressure to buy goods not for their sake but for the jobs that their production is

supposed to entail. To buy goods, people must take out loans, which leads to debt and insecurity. The rich benefit, the poor often do worse, and the position of the middle class continues to decline.

Meanwhile, we are constantly told that government is unproductive, inefficient, and corrupt, and that its main role should be simply to support industry. This contributes to a systematic bias towards private wealth and public poverty. For those who can buy their way out of these problems, the current situation may not seem so awful, but for the majority there seem to be only problems and no solutions, with the media (taking directions from their powerful owners) fuelling the fear of change.

But there are solutions and they are well within our reach. We could start to rebuild our faith in government and press for more spending on health, education, and the other services we value. We could consider various ways to place limits on some consumer products that are harmful to the environment and do little to generate needed jobs. We could move away from our single-minded focus on the market and shift instead to understanding and addressing the wants and needs of people, not of corporations. We could change policies that support investment of capital rather than of labour, and in so doing address both unemployment and environmental concerns simultaneously.

And a final note, contributed by the writings of evolutionary biologist Stephen Jay Gould: the environment does not need us. We cannot destroy the planet. We can destroy much of what we value and treasure on it, in terms of the wide array of plants and animals and the beauty of nature, but the planet will survive long after we are a distant memory. Human life on the planet is only the merest blink of time in geological terms: a few hundred thousand years against the 4 or 5 billion or so of the planet.

But the reverse is not true. We cannot completely trash our environment and continue to live. This particular crime carries the death penalty. The environment is the foundation of life, for us as well as other species, and at some point, if we inflict too much harm, we will no longer continue to survive. We need to worry about the environment and climate change not out of altruistic reasons, but for the most selfish ones of all. Fortunately we can save our planet while also contributing to a healthy economy...as long as we learn to distinguish between GDP growth, between what benefits the big corporations and the wealthiest, and genuine progress for all.

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Useful Websites

In recent years a number of websites have sprung up that address the issues raised in this booklet. The following are a few suggestions of places to look, including more serious websites for those looking for detailed information and papers, to blogs that are more for fun and inspiration.

Climate change activism; social justice

www.350.org "350.org is an international campaign that's building a movement to unite the world around solutions to the climate crisis-the solutions that science and justice demand. Our mission is to inspire the world to rise to the challenge of the climate crisis - to create a new sense of urgency and of possibility for our planet."

www.worldfuturecouncil.org "Mankind today is living and consuming at the price of future generations. The World Future Council works to safeguard the rights of future generations. Our aim is to pass on a healthy planet and just societies to our children and grandchildren."

Carfree cities, carfree life

www.carfree.com The website for the carfree cities movement, with lots of useful information and inspiration. Check it out for "a delightful solution to the vexing problem of urban automobiles."

www.worldcarfree.net The World Carfree Network "is a clearinghouse of information from around the world on how to revitalise our towns and cities and create a sustainable future. In addition to serving the carfree movement, Worldcarfree.net offers resources for architects, planners, teachers/professors, students, decision-makers and engaged citizens."

livingthecarfreelife.blogspot.com "I choose not to own a car. Being carfree is a great way to save money, lose weight, avoid stress, and be part of the solution, not the problem. ... This blog is about living carfree: getting about on foot, by bike, bus, or train. It's about places and and it's about spaces. You can be a spectator, and watch the world from inside the box. Or you can get out and join in. Anyone can make the choice."

www.giveupyourcar.com "...what if giving up your car was to make your life better. What if being car-free meant being richer, thinner, fitter, saved your time, maybe saved your life, and was better for your kids?"

Cities and transport

www.healthbridge.ca/liveable_cities_e.cfm HealthBridge's liveable cities program seeks to "improve health, equity, and the environment in cities in developing countries, through sound urban design and transport policies that focus on access, fuel-free transport, mass transit, and qualities that make cities more liveable such as accessible public spaces and green space."

www.ecocitybuilders.org "Ecocity Builders reshapes cities for the long-term health of human and natural systems. We develop and implement policy, design and educational tools and strategies to build thriving urban centers based on 'access by proximity' and to reverse patterns of sprawl and excessive consumption."

www.embarq.org "EMBARQ's goal is simple: make cities around the world better places to live. By focusing on transport, which affects everything from prosperity to pollution, EMBARQ's work yields social environmental, and economic benefits: Reduce fuel use, air pollution, and greenhouse gas emissions; Improve public health;... Increase competitiveness of the city, reduce the cost of doing business, and the cost of getting to work..."

www.sustrans.org.uk "Sustrans makes smarter travel choices possible, desirable and inevitable. We're a leading UK charity enabling people to travel by foot, bike or public transport for more of the journeys we make every day. We work with families, communities, policy-makers and partner organisations so that people are able to choose healthier, cleaner and cheaper journeys, with better places and spaces to move through and live in."

Economics

www.neweconomics.org The New Economics Foundation "believes that climate change is just one symptom of a malfunctioning economic system. In order to tackle it, we need major paradigm shift in the way we organise our economy and society. But this doesn't have to mean impossible sacrifices. ... we can build more convivial ways of living and rediscover our common humanity."

www.grossnationalhappiness.com "Indicators determine policies. The almost universal use of GDP-based indicators to measure progress has helped justify policies around the world that are based on rapid material progress at the expense of environmental preservation, cultures, and community cohesion." Read more about an alternative being used in Bhutan and studied elsewhere.

WBB Trust Publication List

Tobacco Control

1. Tobacco Control Law: Importance and Action (Bengali)
 2. Tobacco Control Law: The People's Demand (Bengali)
 3. Tobacco Control Manual (Bengali and English)
 4. Hungry for Tobacco (Bengali and English)
 5. BAT's Youth Smoking Prevention Campaign: What are its actual objectives? Research and analysis (Bengali and English)
 6. Framework Convention on Tobacco Control: What, Why and What to Do (Bengali)
 7. Do You Know How to Quit Smoking? (Bengali)
 8. Raising Tobacco Taxes: A Solution for Revenue and Public Health (Bengali)
 9. Addressing tobacco and poverty in Bangladesh: Research and Recommendations on Agriculture and Taxes (Bengali and English)
 10. Tobacco Farming and Alternate Crops for Poverty Reduction (Bengali)
 11. People's Perceptions about Pictorial Health Warnings on Tobacco Products (Bengali and English)
 12. Smoking and Tobacco Products (Control) Act 2005, Rules 2006 and Important Directions for Government Tobacco Control (Bengali)
 13. Tobacco-Related Poverty among Farmers, Workers and Users in Bangladesh: A Dismal Present and Little Hope for the Future (Bengali and English)
 14. Tobacco Control Law: Why amendments are needed and what to do (Bengali)
 15. Tobacco Cultivation and Poverty in Bangladesh: Issues and Potential Future Directions (English)
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16. Tobacco in Bangladesh: Production, Use, Economic Issues and Policies for its Control (English)

Environment

1. It's Our Environment, We'll Save It (Bengali)
2. Trapped in Plastics and Polythene: Freedom and Escape (Bengali and English)
3. Plastics and Nature: The Current situation and suggested remedies (Bengali and English)
4. Noise Pollution Research and Action (Bengali and English)
5. Noise Pollution: What we can do (Bengali)
6. The Dangers of Noise Pollution and Our Response (Bengali)
7. One Year After the Polythene Bag Ban: Successes, Obstacles and The Way Forward (Bengali)

Transport Policy

1. Transportation Policy for Poverty Reduction and Social Equity (Bengali and English)
2. Vehicle Mix and Road Space in Dhaka: The Current Situation and Future Scenarios (Bengali and English)
3. Improving Dhaka's Traffic Situation: Lessons from Mirpur Road (Bengali and English)
4. Walking as a Basic Human Right (Bengali)
5. The Importance of Rail for Safe and Sustainable Travel (Bengali)
6. Thoughts on Parking Planning and Related Issues (Bengali)
7. Efficient Use of Road Space and Maximization of Door-to-Door Mobility: Suggestions for Improvements in Dhaka (Bengali and English)

8. Rickshaw Bans in Dhaka City: An Overview of the Arguments For and Against (Bengali and English)
9. Dhaka Urban Transport Project's Report: A Critical Review (English)
10. Dhaka Strategic Transport Plan (STP): A Critical Review (English)
11. Colonial Bureaucracy and Sustainable Transport Developments in Bangladesh (English)
12. Detailed Area Plan (DAP) for Dhaka Metropolitan Development Plan (DMDP), A Critical Review (English)
13. Recommended Transport Strategy for Dhaka City
14. Knowledge-based Transport Planning and More Rickshaw Bans in Dhaka City (English)

Water and Sanitation

1. Ecological Sanitation and Water Use (Bengali)

Gender

1. The Role of Men in Improving Husband-Wife Relations (Bengali)
2. The Economic Contribution of Women in Bangladesh through their Unpaid Labour (Bengali and English)
3. The Negative Impact of TV on our Children (Bengali)

Liveable Cities

1. Life Between Buildings (Bengali translation)
2. Ecocity Planning: Images and Ideas (English)
3. Liveable Cities: Ideas and Action (English)
4. Public Spaces: How they Humanize Cities (English)

Quarterly Newsletter: For the Country (Bengali)