

## WHAT REALLY COUNTS – STUDY AND DISCUSSION GUIDE

*The discussion questions below are preceded by a dash. Please first try to answer them as best you can both from your own knowledge and experience, and from watching the film. Following the questions are some clues and remarks that can help. After reading those, you might go back to the questions and fill in any gaps you had the first time. Approaching this study guide in that way can help you learn to explain the economy, GDP, and the GPI to friends and colleagues outside.*

### 1. Understanding our economy

- Why do you think people are so often bewildered by economics – so often feeling stressed, overwhelmed, and even victimized by how the economy affects them?
- And how is it that the economy has become a kind of super-system to which all else – the natural world, our communities and families – all of us bow down? Inevitably, for example, the economy is the #1 issue at every election.

*What Really Counts* starts out just talking in plain language about some of the ways our present economic system actually works.

- In what ways has the film clarified for you some elements of how the economy works?

To some extent, the film blames economists for a lot of people's confusion, and for using jargon that enshrines them as experts and that deliberately covers up the fatal flaws in their system. It argues that the way economics textbooks are written and the way economics is taught in universities is seriously flawed and contributes hugely to the present confusion.

At one point, Ron Colman even says he'd sooner trust as Finance Minister a person off the street who'd never studied economics over someone with a Ph.D in Economics from Harvard University. Why? Because the former at least

relies on common sense, while the economic paradigm in which the Ph.D is caught is wrong.

— Please discuss this: Can you understand why Colman says this?

In particular, please discuss Colman's argument that the present economic paradigm, to which economists, politicians and journalists subscribe, wrongly assumes the economy functions in a "closed box" in which firms and households exchange labour, income, products and services, and in which governments intervene through taxes, incentives and other policies. That paradigm ignores the reality that the economy serves societal goals and is entirely dependent on the encompassing ecosystem for resources, life support, and waste absorption.

If you understand that fundamental point, then you can talk intelligently about the economy with anyone and dispel a major part of their confusion. In fact they will quickly become smarter than most economists! As David Attenborough said: "Anyone who thinks that you can have infinite growth in a finite environment is either a madman or an economist."

And that leads us right to the next question:

— Can you explain in a nutshell what GDP is? **And** what makes it so powerful?

*What Really Counts* particularly focuses on that magic number that underpins all our measures of economic success and failure – a number that's been called "the most powerful statistic in human history" – the Gross Domestic Product or GDP.

In particular, it's so important to understand that what GDP is and what makes it so powerful are not the same thing. What GDP is – namely a number that adds up how much stuff we produce and how much we buy and sell – is not a problem. And that's not what makes it so powerful. The problem and the power start when economists and politicians think, as they always do, that their main job is to make that number **grow**.

They call a growing GDP – namely producing and buying ever more stuff – "economic growth" and they fixate on **growing** the economy. And they assume that *more* GDP and the faster they can make it grow, the "better off" we are. Journalists even call a rapidly growing economy a "healthy" economy, and when it stops growing they call it "weak" and "sickly."

- Did you understand why the economists who invented the GDP – like Nobel prize winner Simon Kuznets – never intended GDP to be used that way?

Kuznets argued that to tell if we're better off or not, you have to ask **what** is growing – **what** we're producing and buying – not how much. To understand what Kuznets meant, we have to go on to the second major issue for discussion.

## 2. Understanding how GDP is misused

- Before reading any further can your group succinctly summarize at least four major misuses of GDP?
- And with each of these misuses, can you explain how each one sends misleading and even dangerous messages to policy-makers?
- For example, if you understand this, you should now be able to explain:
- why misuses of GDP help prevent meaningful policy action on climate change,
  - why they devalue a lot of women's work in particular,
  - why they encourage depletion of our natural resources,
  - why they can foster a growing gap between rich and poor, and
  - why – despite a bigger than ever GDP – people often feel more insecure than ever.

Before you keep reading, first try to answer these questions, and then get some clues from what follows.

Here are some key points on this issue from the film that you can discuss. In fact, you can think of additional examples other than just those given below:

- a) Anything can make GDP grow. More arms manufacturing, more war, more cigarette and junk food sales, more drug and hospital bills, more crime that makes us spend more money on prisons, more pollution and disasters that make us spend more money on cleaning up the mess. But does that kind of

GDP growth mean we're better off? GDP makes no distinction between money spent on books and food and money spent on bombs and cigarettes.

That's why Simon Kuznets argued you have to know **what** is growing to know if we're better off. And it's why policy makers are deluded in thinking that more growth necessarily means we're better off.

— You might discuss in your group whether there's case that with a bigger GDP than ever, we've become worse off and more insecure than ever.

b) Even more seriously, GDP counts only what we extract from nature, not what we leave behind. So right up to the collapse of our Atlantic groundfish stocks in 1992, economists, politicians and journalists talked of the fishing industry as a boom industry with its record fish landings. GDP only counted what we took out of the oceans, not what we were leaving behind. Scientists warning of declining fish stocks were ignored by economists fixated on growth.

We're doing the same with forests. GDP counts the timber we extract and ignores the declining and degraded forests we leave behind. And no wonder they can't really act on climate change. After all, the more fossil fuels we burn and the more greenhouse gases we emit, the more the economy will grow – and that, of course, the economists and politicians celebrate!

In the pre-U.S. election debate, climate change was one of the very last question asked in the 90-minute debate. In their answers, both Harris and Trump spent way more time talking about the economy than about the biggest threat ever to face humanity.

c) A third huge flaw is that GDP will grow even it's only the rich getting a lot richer while the poor stay poor or get poorer. That's happened in the United States, Canada, and many other countries.

You see, GDP and economic growth are just averages. So they tell us nothing about the growing gap between rich and poor. An old joke among

statisticians is that if you've got your feet in the refrigerator and your head in the oven, then on **average**, your body temperature will be just fine. Your wellbeing, however, is another story! To know how well off we really are, we need to know who's on fire and who's being left out in the cold. GDP can't do that and wasn't designed to do it.

It's happening in my hometown of Halifax: Halifax is booming – now one of the fastest growing cities in Canada, developers are making a mint, housing rents are skyrocketing, and a recent news headline celebrated “Halifax Partnership confident in city's economic growth as we reopen.” So rising rents are make GDP grow, and the Mayor of Halifax says all this growth is something “to celebrate.” But are we better off if our rents are going through the roof?

- d) One of the policy misuses of the GDP that upset its chief architect, Simon Kuznets, the most is that it only counts work done for pay and ignores work done for free even if it's exactly the same productive work. And since women do by far most of the unpaid work in the world, that means that its misuse particularly disadvantages and devalues women.

For instance: Look after your own child, you're worth nothing to GDP. Pay a stranger to look after your child, you're contributing to GDP and making the economy grow. As far back as 1932, economist Arthur Cecil Pigou noted that if you hire a housekeeper to clean your house, the economy will grow. Marry your housekeeper and the economy will recede.

And that's so absurd that GDP architect, Simon Kuznets, actually cut relations with the U.S. Commerce Department over its refusal to count unpaid work. After all, he argued, production is production, whether paid or unpaid. And if the GDP claims to measure production, it has to include both.

A lot of *What Really Counts* was filmed in the Maritimes, which has the highest rate of volunteer work in Canada – people caring for each other, and caring for their communities. But since GDP only counts work for pay, all that unpaid voluntary work remains invisible to economists and policy

makers. With the values Maritimers cherish, they are particularly poorly served by this “most powerful statistic in human history.”

- e) Aside from those four key misuses of GDP, there are several others. For instance:
- It's often wrongly assumed that a growing GDP necessarily produces more jobs. But that's not necessarily so. In fact, GDP also grows when machines replace jobs.
  - As well, so long as we keep shopping, GDP will grow even as we go deeper into debt and more economically insecure.
  - And GDP places no value on durability. On the contrary, the quicker things wear out and become obsolete, the more money you have to spend to replace them, and that makes GDP grow again.
  - As well, GDP makes no distinction between productive and defensive expenditures. For instance, climate change is producing far more severe weather, hurricanes, and storms. All the money spent repairing the damage caused by those natural disasters makes GDP grow. But have those disasters made us better off?
  - GDP is a “flow” estimate, meaning it counts money earned and spent. But it doesn't account for “stocks” like the standing value of a forest or of fish stocks or of human capital in the form of health and education, and more. Excess flows like overharvesting can actually deplete stocks, and that loss is invisible in GDP.
  - As the name implies, GDP is a “gross” measure not a net measure that assess costs and losses against gains.

The film couldn't cover all these flaws, but it at least gives some information on the first four (a) through (d) listed above. So that will serve you if you want to explain the flaws of our present economic paradigm to others.

Suffice to say the book starts with what this most powerful statistic in human history is, what it does and doesn't do, and how its misuse gives wrong information to policy makers, how it produces bad policy, and how it leads us down a deadly and dangerous path that now seriously threatens our children's future.

But *What Really Counts* is not a complaint. On the contrary: Once we know what's wrong, once we call out the deception, then we know what to do about it. And that's really the work described in this film.

### 3. So, what is the alternative?

In other words, enough bad news. Now for the good news.

*Following are some questions for your discussion. Again, a reminder: For the best learning experience, first try to answer the questions from your own understanding and memory. Then look at the notes following the questions, and then go back to the questions and try to answer them more completely:*

- Why is counting what really matters essential to good policy? What did you learn from the film about better ways of measuring progress properly and accurately that can give good information to policy makers?
- What is the difference between an “indicator” and an “account”? What do we mean by “full cost accounting”?
- Can you give some concrete examples of “net” vs “gross” accounting?
- If you had just two minutes, how would you explain the Genuine Progress Index (GPI) to someone outside?
- What specific examples of GPI accounting mentioned in the film struck you most? And how do those results differ from the message GDP sends? How would they affect policy differently than GDP does? Which contrasts between GPI and GDP accounting do you think are most persuasive?

The notes below refer back to some of those examples from the film and also give other examples that the film didn't have time to cover. They illustrate how we can measure economic health more accurately and comprehensively using a net rather than gross accounting approach:

#### *a) Farming*

Since food is basic to survival, let alone health, let's start with farming. What GDP counts is farm cash receipts – the income farmers get. What it doesn't do -is compare that to how much more it's costing farmers to farm. So it hides the reality that those farm expenses and farm debt have been growing astronomically – *way* faster than income.

There's a reason GDP is called **GROSS** domestic product – it only looks at *one* side of the equation. Our Genuine Progress Index (or GPI), by contrast, is a system of **NET** accounting – we look at *both* sides of the equation – income in relation to expenses, assets in relation to debt, and the *ecological* deficit we build up by consuming more than the earth can provide. That's just common sense.

Gross accounting might have made sense when GDP was first used in the Second World War to figure how fast we were ramping up production for the war effort. But it makes no sense now.

So for farming, GPI researcher Jennifer Scott looked at five key indicators of *real* farm economic viability and found they had all steadily declined over a 35- year period. The first GPI agriculture report in 1999 was a clear warning signal that Maritime farmers were in trouble. Sadly, policy makers ignored the warning signals.

Ten years later, Jennifer did a follow up study and found that *net* farm income in Nova Scotia, Prince Edward Island, and New Brunswick had dipped below zero. It was now costing farmers more to farm than they were getting in income. Their debt load had mushroomed. Not surprisingly, farmers were bailing out, selling their farms. Young folk refused to jump onto a sinking ship, the farm population was aging fast.

The Nova Scotia Federation of Agriculture was ecstatic just to get these GPI numbers: – “This is what we've been saying all along,” they told us. “But we only had personal, anecdotal evidence and no one listened. At last we have the numbers to prove what we already know. Now the politicians will listen.” Or so they thought. So we hoped. But the GDP stranglehold remained solid. Nothing changed.

## *b) Climate change*



It didn't have to be that way. Used properly, the Genuine Progress Index sends early warning signals. It enables governments to take timely remedial action *before* fish stocks collapse, *before* small farms die out, *before* we're overwhelmed by the drought, wildfires, disease, and rising seas caused by catastrophic climate change.

So, the GPI uses this same *net* accounting system with climate change, transportation, health, forests, economic security, and a lot else.

Instead of looking only at what it will cost us to cut greenhouse gas emissions, as politicians do – *one* side of the equation –, the GPI also looks at the best climate change models to examine what it will cost us if we don't cut those emissions!

The clear conclusion: The science **and** the economic numbers prove that timely action now is hugely cost-effective compared to the shattering costs of climate change damages down the line.

### *c) Economic security*

The GPI uses the same approach with straight economic numbers.

While GDP looks just at income and spending – the *gross* approach – we looked at Canadians' and Maritimers' debt compared to their income – a *net* approach. For 80% of Canadians – all except the richest 20% - we found debt was growing much faster than income.

So we warned of a coming economic crisis as growing numbers of people would be unable to make payments on their debt. We found 77,000 households in the Atlantic provinces are so seriously in debt that they wouldn't be able to pay off their debts even if they sold everything they owned, including their homes.

This was 2008. The head of a large bank, without disputing our data or our methods or our calculations, said our warning had to be wrong: – Canadian household finances had never been more healthy and secure, he said.

A few weeks after we released our report, the crash came. The Canadian economy fell into recession, exports declined by 16% and investments by 22%, 400,000 jobs were lost, the Canadian dollar lost 20% of its value.... And Canadian households found their finances far from "healthy" and "secure."

We weren't surprised. Any *net* system of accounting could have predicted the trouble. The *groww* system that economists swear by failed them. And yet – so deeply entrenched is the GDP dogma and belief system that people blamed Alan Greenspan and the other economic gurus for missing the signals. But they never looked at the actual blinders that prevented them seeing the truth.

#### *d) Transportation*

The GPI uses this net approach across the board. We tabulated the true costs of driving, including from accidents, congestion, land use, air pollution, greenhouse gas emissions and more - which are way higher than what drivers themselves pay to operate their cars. And we looked at win-win solutions that are economically, socially and environmentally beneficial – that can move us to a far more sustainable, convenient, and equitable transportation system.

#### *e) Forests*

Over a 50-year period, using forest inventories back to 1958, we carefully charted the decline and degradation of our Nova Scotia forests due to clearcutting. The numbers clearly showed we'd lost all our old-growth forests. We'd lost the age and species diversity that used to keep our forests healthy – they're now way more susceptible to disease and infestation. We'd even lost the value of the wide diameter, clear timber that old forests have, so even our timber is worth a lot less.

We saw the decline in forest soils and in habitat for birds and animals and more. And we graphed the 38% loss in carbon storage capacity that costs society an estimated \$1.3 billion in lost value. Instead of being the carbon sinks our forests used to be, Canada's forests are now net emitters of carbon.

In the book, I tell the story of how the forest industry didn't like our GPI results. They showed too clearly that they'd have to change their habits. So, the industry spent a lot of money trying to discredit the GPI work. They were never able to prove any of it wrong. Altogether, in fact, over a 25-year period, the GPI data, methods, calculations and results have borne up against close scrutiny and have withstood the test of time.

Despite the clear evidence, the forest industry didn't have to change its ways, largely because they had the Department of Natural Resources in its pocket.

With those examples I just gave, you might think the GPI is just full of bad news. Not so. Not at all. We produced a whole second volume of Forest Accounts detailing viable, prosperous, successful sustainable forestry operations that use only selection harvesting instead of clearcutting.

*f) Demonstrating the economic value of sustainable activity*

In fact, the GPI is the carrier of substantial good news in demonstrating that sustainable and preventive actions that protect natural and human capital have significant economic value. For example, we proved with dollar figures that Nova Scotia's new leading edge sustainable waste management system, using composting and recycling, produced substantial savings compared to the old system that dumped everything into landfills.

We made the economic case for sewage treatment that would clean up Halifax Harbour compared to dumping all municipal sewage into the harbour as was the custom to that point.

We tabulated the costs of second-hand smoke, and our GPI numbers were used not just in Atlantic Canada but in Ottawa and elsewhere to ban smoking in restaurants and bars.

We proved with hard numbers that Nova Scotia could save 25% of current health care costs if Nova Scotians didn't smoke, had healthy weights, and exercised regularly. The province used our numbers to institute a more proactive policy of health promotion and disease prevention.

That was a rare case where government actually listened. The Nova Scotia government used our GPI numbers to create a new Department of Health Promotion, a healthy nutrition programme for schools, and a comprehensive tobacco control strategy that sharply cut smoking rates.

*g) Demonstrating the value of unpaid work*

In the film, Ron Colman remarks that he saw Nova Scotia as an ideal incubator for the GPI work and for the new sustainable and equitable economy the world needs, largely because the GPI is so in tune with local values there. Community still matters there, and materialist and individualist values seem less dominant than in many other places. And so, measures of progress like the GPI that value community, health, environmental quality, and basic security resonate strongly with people there.

For example, the Nova Scotia GPI cited survey results showing that the Maritime provinces which include Nova Scotia have the highest rates of social and community support and volunteer work in Canada. For instance, we found that Nova Scotians give the equivalent of \$1.8 billion dollars' worth of voluntary work a year, equal to 81,000 jobs. That counts for nothing in the GDP. But it *does* have real economic value. If volunteers weren't doing all that work for free, either our quality of life would plummet or taxpayers would have to pick up the tab.

The volunteer and non-profit groups in Nova Scotia quickly used our numbers. At the annual Volunteer of the Year dinner – usually just a feel-good affair: When the Premier of Nova Scotia – John Hamm at the time came on stage to present the award – the organizers welcomed him with a huge cheque for \$1.8 billion and said: “Mr. Premier: here’s our contribution to the Nova Scotia economy this year.”

There are many more examples in both the book and the film. The key message is that measuring things right, counting what really matters, is essential to creating the new sustainable and equitable economy that we all need, and the future we all want.

#### **4. So, why isn't the GPI widely used and adopted?**

*We're going to treat this section of the study guide differently from the previous three sections. In those previous sections above, the emphasis has been on trying to understand some basics about the economy and its relation to the wider society and natural environment. We need to grasp what GDP is, how it works, and what its limitations are, and likewise what the GPI is and how it works.*

*And so, the questions we've asked you to discuss have somewhat clear and direct answers. That's why we've provided you with detailed notes after the questions to help you fill in what you might have missed when first tackling the questions.*

*But the questions in this section are different. Rather than be “answered,” they are almost designed to remain as questions for long-term contemplation. Sometimes there are no clear answers at all to what are really existential issues – for example in contemplating how we handle the despair we may feel about*

*the world and the future, and how we can maintain some kind of life-affirming and uplifted quality in the midst of that.*

*Nor do we want to imply that the obstacles in the way of GPI adoption and usage are easily removable. In fact they may be so deeply rooted in the very structure of the economic system that rules our lives that we can barely contemplate an alternative. And such an alternative may require a leap into unknown territory that can so shake our present lifestyles as to be scary.*

*The last thing we want to do is impose answers or suggest glib solutions. And so, the notes and reflections that follow these questions are rather designed to add a little further fuel to your contemplation than simply to provide answers. In order to deliberately blur the line between questions and notes, we've even sprinkled further questions in among the notes*

*In order to engage in the kind of contemplations suggested here, you do first need to understand a bit about the present economic system and about the alternative that the GPI presents, which is why we start with the following essential preliminary discussion. Otherwise, the questions that follow will not really be meaningful.*

### ***A necessary preliminary question and discussion:***

— Before starting this last section of the study guide, it's worth considering whether you yourself are convinced that the GPI can provide more accurate and comprehensive information to policy makers than the GDP alone. If not, what concerns and questions remain in your own mind? It's important to clarify these before going on.

So on this question, it's worth remembering the following, which may help to clarify some doubts and concerns:

- *What Really Counts* never advocates getting rid of the GDP. The GDP does what its architects intended very well – namely to measure the size of the market economy. What the GDP was never designed to do is to assess how well off we are according to how much GDP is growing. which is how it's misused today. As Simon Kuznets, chief architect of

GDP accounting said: To know how well off we are, we need to know *what* is growing, not how much is growing.

- It's also important to remember that the market economy is not a closed system but exists within a larger society and natural environment on which it depends.
- Finally, in order to check your own doubts, you might want to go back and review Section 2 above on what GDP misses, and Section 3 above on how the GPI tries to address those concerns.

Until you've wrapped your mind around those issues, this next section won't make much sense. In other words, this section is based on the assumption that the GPI can be used to create better policy than what we see today.

Not only that. But when you look at what the GPI measures, you realize that there's full agreement across the political spectrum – from right to left – on *What Really Counts*. Who doesn't want better health for our people, greater economic security, decent work, a clean and healthy natural environment, less crime, safe and strong communities, less poverty, and better education that produces greater knowledge and wisdom? *ALL* that is measurable. Why ignore what really matters in the narrow single-minded focus on growing the economy and increasing GDP?

If you accept that, and if adopting the GPI seems like a no-brainer, *then* it makes sense to explore why it hasn't happened and why no country in the world has yet adopted the GPI. What's stopping them from doing what makes sense? What are the obstacles and challenges? And that's what these next questions are about:

- Can you recall from the film: – what are some of the major disappointments that Ron Colman recounts in his efforts to get governments to adopt the GPI? What happened in Nova Scotia? And what happened with Bhutan's "new economic paradigm" initiative at the United Nations?

- Why do you think these initiatives failed? If policy makers accept the logic and reasoning of the GPI, which they seem to do, what stops them from actually using it to assess genuine progress and prosperity, and as a practical policy tool? What are the key obstacles?
- In what ways is the world moving in the opposite direction from the direction indicated by the GPI results? Please give specific examples.
- And there is an emotional side to these questions: Do you yourself sometimes feel despair at what you see in the world – ecologically, socially, economically, and politically? And if so, how do you deal with that feeling? In what ways do we try to bury our heads in the sand to avoid looking reality in the face? Is it possible to remain upbeat and positive without denying reality?
- Why does Ron Colman say that they’ve been aiming the GPI at the “wrong audience” for so many years? What is that “wrong audience” and what does he suggest is the right one – and why?
- And then the elephant in the room question: Is capitalism compatible with sustainability? Or is there something about the very nature and structure of capitalism that necessarily leads to ecological destruction and growing inequality? And if your answer to those two questions is “No” and “Yes” respectively, then how can capitalism be replaced and by what kind of new system? Is it possible? Or are we doomed?
- And all the above comes back to a fundamental question about the GPI altogether, which we have not yet considered in the study guide, but which may help to understand why policy makers have hesitated to adopt the GPI:
  - On the one hand, the GPI “innocently” uses the language of conventional economics in order to communicate with that world. For example the GPI weighs the economic costs and benefits of economic activity; it uses net rather than gross accounting; it extends the notion of “capital” from manufactured capital to natural, human and social capital; it considers

investment and depreciation of those capital assets; it uses monetization to express the value of uncounted assets, etc.

And so, when GPI data, methodologies, calculations, and results are released, even the most diehard conventional economists and policy makers cannot help but nod their heads and accept the basic logic of what they see.

- On the other hand, the GPI is deeply radical, and is based on an entirely different set of assumptions than the conventional system it critiques. It points towards a new and unfamiliar way of living our lives and seeing the world. It challenges current lifestyles, modes of consumption, and material comforts that we presently take for granted.

The GPI requires that we live within the finite limits of the planet earth. It shifts the focus dramatically from more production to more equitable distribution of existing resources. It requires much longer-term thinking than we are accustomed to, and it requires seeing our lives from a much larger global perspective than the dominant narrow focus to which we are accustomed. In particular, it redefines what we mean by wellbeing and quality of life altogether.

- Might the truly radical nature of the GPI, not always initially apparent in the language it uses, be a key reason that policy makers cannot accept it or use it as a practical policy tool? Despite its logic, evidence, and apparent reasonability, is the GPI too far out of their comfort zone to be fully embraced? Are policy makers themselves such pawns of the existing economic system that they cannot conceive a world beyond it? It's been said that "it's easier to imagine the end of the world than the end of capitalism." Might this be at the core of policy resistance to adopting the GPI?

*Here are a few random notes, not to help you answer the questions above but rather to feed the contemplations themselves.*



Given the prevailing materialist ethos of our world, counting right is absolutely necessary to shape good policy. But that counting system actually points to a much bigger picture – the new economic model that the world desperately needs.

*Does truth matter?*

The good news is that we have all the knowledge, the expertise, the resources, and the good working models on which to build, to create a genuinely secure, sustainable, equitable, and prosperous economy, society and future for our children. In other words, we have what it takes to produce that new paradigm. We've got no excuse and we can't plead ignorance. We *know* what to do and how to do it. In other words, the reason it's not happening has nothing to do with "it can't happen" or "we don't know how."

— And this raises a deep and troubling question for our times: Is the Age of Reason over? Are knowledge and the search for truth no longer premiums in this so-called modern era? Have we become so locked into dogmas, belief systems, and hidden biases that we no longer respond to hard evidence? And if that is the case, then what kind of energy is needed in this day and age in order to cut through self-deception?

We in the GPI number-crunching world are not the only ones asking these questions. So many meteorologists, climate scientists, biologists and others have spent decades carefully assembling hard evidence and meticulously documenting their findings. They have almost always erred on the side of great care and conservatism in presenting their results, carefully pointing out the limitations of their studies and the need for further research. And they have been ignored.

David Attenborough summed it up for a lot of us when he recalled that "nobody took a blind of notice" when he demonstrated that in order to protect the natural world, we need to change how we live. And that's how it's been for 25 years in the GPI world. Policy makers and economists nod their heads when they hear the GPI results just as they do when they see the results of the latest report of the U.N. Intergovernmental Panel on Climate Change. And then they proceed with business as usual as if they never heard the evidence.

The only reason we ever started the GPI work was to make it happen in practice. We never intended it just as an academic exercise to sit on some shelf. We were convinced, naively as it turns out, that the reason we were seeing bad, short-sighted policy is that policy makers were getting wrong and misleading information. All we had to do, we thought, was provide good evidence and tell the truth – who wouldn't want that? – and the policy people would grab it and use it to make good, far-sighted policy that would benefit not just us but our children and the natural world..... Or so we thought.....

We were naïve, and it's taken us a very long time to question whether the failure to use the GPI stems more deeply from our “modern” world's seeming inability to embrace hard evidence and seek the truth. In fact, long before we thought to ask such questions, our first setbacks in having the GPI used and adopted as a policy tool seemed purely political rather than existential.

### *A catalogue of disappointments*

The first big shock was in 2009, right after we completed our Nova Scotia Genuine Progress Index. We'd given all our work for free to the Nova Scotia government. We gave all our key GPI spreadsheets to the Statistics Office in the Department of Finance so the Province could easily and regularly update the numbers. We produced a policy manual on how they could practically use and apply the GPI. We gave training workshops to Nova Scotia civil servants. We offered our top researcher, Linda Pannozzo, to the government to help implement the GPI in safe, easy, gradual steps.

At that very time that we did all this, the political party that had regularly used our GPI numbers while in opposition, and which promised in its election platform to adopt the GPI if elected, the New Democratic Party, came to power with an absolute majority. We were full of vim and hope. Once elected they ignored this and many other promises, wouldn't answer mail or phone calls, and carried on GDP-based business as usual. The disappointment is described in gruesome detail in the *What Really Counts* book.

We noticed something else in our dealings with government officials. They would cherry-pick those GPI results that supported their existing goals, such as the value of investments in health promotion in order to reduce health care costs, or the justifications for moving to a sustainable waste management

system. But they could never embrace the GPI as a whole because it contained too many inconvenient truths that ran counter to current policy priorities.

We never trumpeted GPI Atlantic work outside the Atlantic provinces of Canada. But somehow people heard about it. So we led the research for the Canadian Index of Wellbeing, which has proved another big disappointment in ways that are also described in the *What Really Counts* book. And I was asked to present our work in New Zealand and Bhutan, where the political will to adopt the new measures did seem to exist.

In New Zealand a change of government from Labour to National quickly nixed prior groundbreaking efforts to adopt more comprehensive holistic measurement tools. As the film indicates, Ron Colman then spent ten years working with the Bhutan government which did firmly believe in balancing economic development with caring for the natural world, with good governance, and with strengthening its culture and communities.

That work went all the way to the United Nations where Bhutan led the drive for a new global economic paradigm to replace the existing GDP-based system. The new one, mentioned in the film and described in some detail in the book, would be based on genuine sustainability and fair distribution and efficient (not wasteful) use of the planet's limited resources.

At that United Nations meeting in 2012, which GPI Atlantic helped the Royal Government of Bhutan to coordinate, luminaries from Nobel Prize winners to religious leaders to a President, the United Nations Secretary-General, and top diplomats and civil society leaders supported the effort. Prince (now King) Charles gave the opening address. The U.N. Secretary General said: "The old model is broken. We need a new one." We lined up a fantastic team of 70 top economists, scientists, scholars, and statisticians to flesh out the details of the new economic system, and we started work.

Again, we were full of hope. And then, just as it started to get real, powerful vested interests threatened Bhutan for stepping out of line, and pulled the plug on the initiative. Bhutan gave in to the pressure. How it all fell apart is described in distressing detail in the second half of the *What Really Counts* book. So these short descriptions may help answer the above question on disappointments encountered.

*And in what direction is the world moving?*

There's also a question above on ways in which the world is moving the opposite direction from the policies towards which the GPI results point. We've already mentioned the low premium presently placed these days on truth and hard evidence. In fact, when we launched the GPI work, our team really believed in the power of evidence, of hard data, of facts and figures to change policy. We were convinced that just speaking the truth mattered. As noted above, that belief has been gravely undermined.

For 35 years, we've had all the knowledge we need to take action on climate change. It's fallen on deaf ears. Instead, more than half of all greenhouse gas emissions have occurred in that same period – *since* we knew the truth, *since* the first IPCC report was issued. With just 1.2% warming, we've had small foretastes like devastating wildfires, floods, and heatwaves of what's to come. If the Greenland ice sheet keeps melting as it now is, London, England, will be under water. Environmental refugees will flood the world.

And we're plundering the world's resources like never before, consuming them 70% faster than they can replenish. Over the past two decades, an average of three to four million hectares of tropical forests are destroyed each year. Ninety percent of the larger fish in the oceans are already gone. 33% of the world's soils are degraded. Species extinction is 1,000 to 10,000 times the natural rate, and current global warming rates will make over a third of the Earth's animal and plant species extinct by 2050.

And when that ecological and climate collapse occurs, no amount of handwashing or mask wearing or social distancing will help, and no vaccine will solve the problem. It's as if we've forgotten that we have children who are going to inherit this earth. Hard evidence is wilfully ignored. The frustration and disillusion of GPI researchers are shared by climate scientists, scholars, and eco-heroes like David Attenborough, David Suzuki and more.

And not just in relation to the natural world. The gap between rich and poor has become obscene, with the richest 1% in the world owning more than twice the wealth of the poorest 90%. Even during the pandemic, we saw 87% of vaccines hoarded by the rich countries, and drug companies unwilling to share their formulae and know-how while millions have died.

### *Switching audiences and naming the elephant in the room*

And since politicians will not hear the truth, it came to a 17-year-old Swedish schoolgirl to go on strike and say NO – no more business as usual. The ones who are actually listening to the science and the evidence, who recognize the magnitude and urgency of the problem, and who are acting, are not the politicians but groups like Extinction Rebellion, Last Generation, Fridays for Future, and Just Stop Oil.

Perhaps these are the real change-makers who are the true audience for the GPI work – they, at least, take the science and the evidence to heart and act on it, even putting their bodies on the line. They want and will actually use the evidence, and they are the ones who can finally make us listen. It's their future that our older generations have stolen, and perhaps our work can support them in taking back their rightful future.

And all this has made Ron Colman and others realize that for 25 years we've been aiming our evidence at the wrong audience. Our policy makers can't act, because they are slaves of a destructive economic system called capitalism that is fundamentally incompatible with sustainability and equity. There's mention of this in the film, and a piece in Chapter 14 of the *What Really Counts* book called "The Elephant in the Room" that looks at why this is. It recognizes that this present economic system is built on the illusion of perpetual growth, that it requires ever more production and consumption to survive, that it forces businesses to chase the cheapest labour to be competitive, and that just wants us to keep consuming in order to perpetuate itself.

It's high time for serious academics and student researchers to question the very foundations of this capitalist system that we so take for granted, and which is now causing far more harm than benefit. It's time to reflect that other economic systems like slavery and feudalism have come and gone. Why assume this one should or will last forever? Can we use our best expertise now to forge the new economic paradigm based on genuine sustainability and equity that the world so desperately and urgently needs.

### *Is change possible?*

The will to take that leap, sadly, has not come from politicians or economists or journalists or academics. It took a Swedish teenager to thunder the truth to world leaders at the United Nations for the world to start waking up. This perhaps is the spark of light that can move us forward.

And the pandemic showed that we have the capacity to act decisively when needed. A tiny virus could ground world economies to a halt. It gave Delhi – the most polluted capital city in the world – clean air and blue skies for the first time in living memory. It showed that we *have* the capacity to stop business as usual, and to act with collective will to overcome a common threat. We *can* do it!

Sadly, we did not use that remarkable moment to wake up, seize the opportunity for change, do what's needed, and rebuild in a new way that's sustainable and equitable. Instead, as we overcame the virus, we simply cranked up the old system and went back to our destructive old ways. Phrases used during the pandemic like “economic recovery,” and “return to normal,” were formulae for going back to the old system that's destroying the world.

Is change possible? Of course it is! As mentioned earlier, we *know* what to do *and* how to do it. Thirty years ago, when Nova Scotia introduced its new sustainable waste management system, the sceptics said you'll never get Nova Scotians to change their old habits, to separate their slimy potato peels from their glass and paper, and to stop putting everything into the big black garbage bag. Overnight, values changed. People treasured being stewards of their environment. And if one's neighbour didn't put out his compost bin, people said – what's wrong with him?

Seemingly overnight, as journalist George Monbiot argues, things that seem impossible one day become inevitable on the next. We saw apartheid abolished in South Africa. We saw the Soviet Union collapse and its East European satellites transformed. And even one brave and forward-looking jurisdiction can likewise create a real model and example to the world in creating a decent future for our children and for their children. And in doing so, a measure of genuine progress like the GPI might play a modest role in providing a small piece of that new path forward.

### **A few reading and film suggestions**

There is a tremendous amount to read related to the GPI work from very many different angles, including in relation to each of the GPI's twenty components. But for now, you may wish to wrap your minds around just one key question since it's core to the GPI critique of how GDP is presently misused – namely the imperative to make GDP grow. That's the “economic growth” that's become dogma for leaders from Russia to the U.S. to China to Europe. And that critique, in turn, is the foundation for the alternative that GPI provides.

The good news is that there is now a growing literature arguing not only that “degrowth” is essential for planetary survival but that we already have “enough” stuff in aggregate and that we need to focus on fairer distribution rather than more production and consumption. That literature is a good starting point in questioning the growth imperative, and from there you could choose to move on to further detail on any dimension of the GPI measurement that interests you – from economic security to climate change, health, forests, transportation, and much more. Each GPI report (available for free on the GPI Atlantic website at [www.gpiatlantic.org](http://www.gpiatlantic.org)) has an extensive bibliography that you can reference in your area of interest.

On degrowth and a new economic paradigm, you might start with:

Tim Jackson, *Post-Growth: Life After Capitalism*

Kohei Saito, *The Degrowth Manifesto and Capital in the Anthropocene*

Kate Raworth, *Doughnut Economics*

Robert Constanza, *Addicted to Growth: Societal Therapy for a Sustainable Wellbeing Future*

A fascinating science fiction novel, very well researched and based on hard evidence, is Kim Stanley Robinson, *The Ministry for the Future*. After reading this, you'll never again use phrases like “heatwave” or “water shortage” glibly. But for all its dire warnings, the book does point to a very positive new way forward and shows that dramatic change and an entirely new economic, social, and political paradigm is possible. Highly recommended.

Other books on degrowth include:

Jason Hickel, *Less is More: How Degrowth Will Save the World*

Kate Soper, *Post-Growth Living*

Giorgos Kallis, *In Defense of Degrowth*

Vincent Liegey and Anitra Nelson, *Exploring Degrowth*

And from several of the above writers and more, writing together in *Nature* journal, there is: “Degrowth can work – here is how science can help”.

Available at: <https://www.nature.com/articles/d41586-022-04412-x>

See also: <https://www.theguardian.com/global-development/article/2024/jul/02/obsession-with-growth-is-enriching-elites-and-killing-the-planet-we-need-an-economy-based-on-human-rights-olivier-de-schutter>

There are a number of excellent documentaries on a range of subjects covered in the GPI. On ecological realities, you can't do better than start with two recent David Attenborough documentaries: *A Life on our Planet* and *Breaking Boundaries: The Science of our Planet*. Both are on Netflix.

A brilliant metaphor for climate change that takes particular aim at the complicity of the mainstream media in denying the magnitude of threat is the 2021 film *Don't Look Up*.

An excellent film about young people determined to stop business as usual, as mentioned above, is *How to Blow Up a Pipeline*.

And if you want to draw inspiration from a little known eco-revolution that succeeded, you might watch *The Coconut Revolution*, available at <https://www.youtube.com/watch?v=JnUD9iXWqLg>