# A consensus that the GDP is not a good indicator of our progress?

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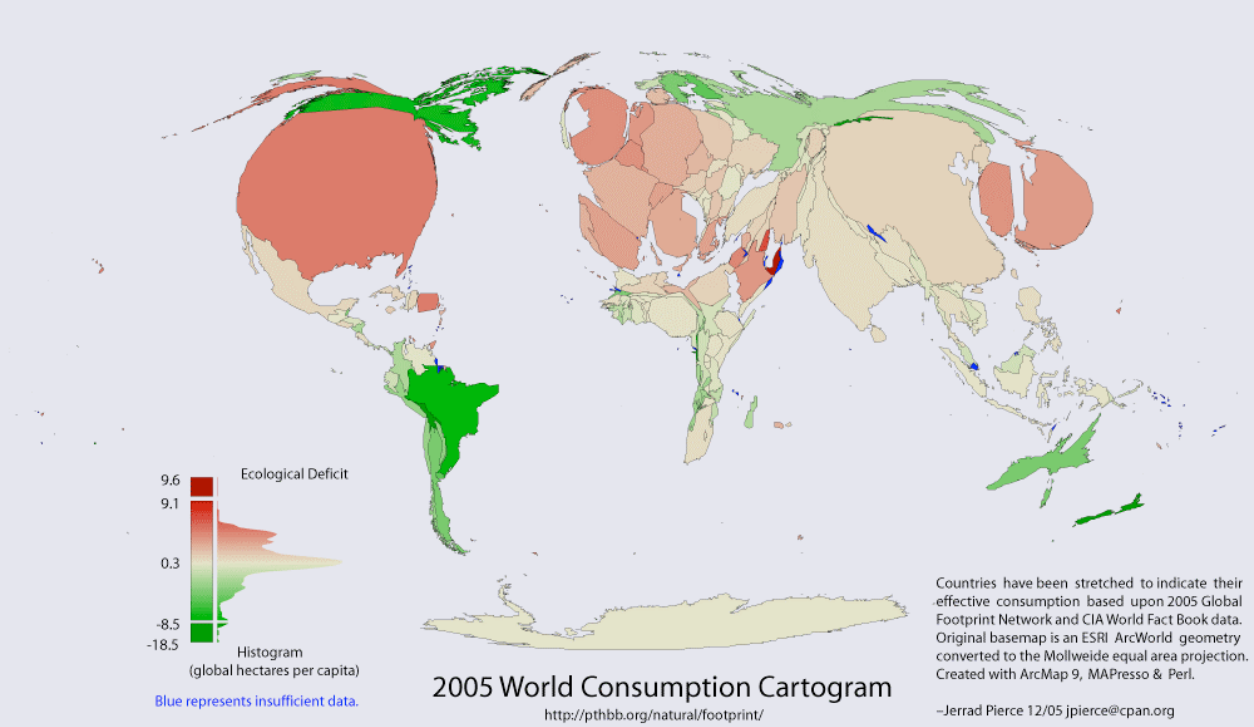
It's becoming popular to note that there is a consensus among economists and decision-makers to the effet that the GDP is a very poor indicator of well-being. At the same time, these same economists and decision-makers continue to use the GDP as if it were the be-all and end-all in terms of guidance for their decisions. This is unfortunately true of even the most well-intentioned economists, such as those involved with the activities of the CCPA.

Ultimately, the GDP is associated with an attempt to make "the economy" perform; it was developed during the Depression of the 1930s and used during World War II, helping to maintain the production of military equipment at as high a level as possible. In the decades following the war, the GDP tracked the enormous increase in output and – in many ways – material well-being, through the Glorious Thirties. During this period, inequality in the distribution of the "wealth" generated by the rich countries' economies also increased, and by the 1970s (with clear signals during the 1960s) environmental constraints began to come to the fore.

These "externalities" were not and are not followed by the GDP, whose purpose is other, to track the expansion (usually) of production of goods and services. At some point during the first five years of the 1980s, and beyond the purview of the GDP, the ecological footprint of humanity went beyond the capacity of the planet's ecosystems to support the activities being generated by (in particular) the rich countries' economies. We began living off our capital and today, twenty-five years later, the crises brought to center stage by the Brundtland Commission in 1987 are now in full bloom. We are confronted by ecological crises: the climate, water, soils and food production, fisheries and the oceans they depend on, desertification – and the list goes on – as well as social crises: enormous inequalities between the poor and the rich countries of the world, endemic unemployment clearly now structurally associated with the dominant economic system, problems of governance stemming from the enormous size and power of the world's economies – and the list goes on.

Figure 1 gives an indication of the situation we are in today, with a global ecological footprint for humanity that is 50 % beyond the planet's carrying capacity, and the result, presented graphically, indicating the dramatic social problems associated with this going beyond the bounds.

**Figure 1: The world as a problematic place in terms of humanity's ecological footprint**




The slightest attention paid to reporting on news and "current events" provides a portrait which comes close to being schizophrenic. On the one hand, concern for "the economy" covers the problems of countries everywhere, and focuses almost single-mindedly on the various efforts to stimulate economic activity and growth, on the hypothesis that these are the key to a "recovery" from the Great Recession of 2007-2011 (or is it 2012, or 2013?); and the results are not encouraging to either reporters, economists or the decision-makers whom these latter counsel, through the different departments of finance as well as more generally. On the other hand, the current events covered on a daily basis include floods, droughts, famines and a multitude of other problems which anyone who has followed the scientific reports of the past three decades can associate with the fact that humanity is pushing "beyond the limits" in terms of the ecosystem support upon which everything we do depends.

The professional inertia inherent in the first set of events dates from the Great Depression, World War II and the Glorious Thirty, no account having been taken of changes in the situation in which economic activity has been taking place for decades. Climate change is clearly the most striking instance of the incoherence – the schizophrenia – in our economic reckoning. Economists and decision-makers put their faith in the maintenance of economic activity "at all costs", and – always at a second level, *after* economic decisions have been made – attempt to manage the environmental and social externalities of those decisions as necessary inconveniences that are to be dealt with as well as possible.

Ecological economists have been providing insightful analysis of our critical situation since the work of Georgescu-Roegen in the 1970s put an emphasis on the thermodynamic inevitabilities of living on this planet. They point out – it's an obvious fundamental – that we are dependent on natural ecosystems and on natural ressources for everything we do. Even those who argue for

"weak sustainability", claiming that human productions can replace natural ones, have to admit that, although this may be true in some cases, it would require a certain number of fundamental preexisting natural conditions.

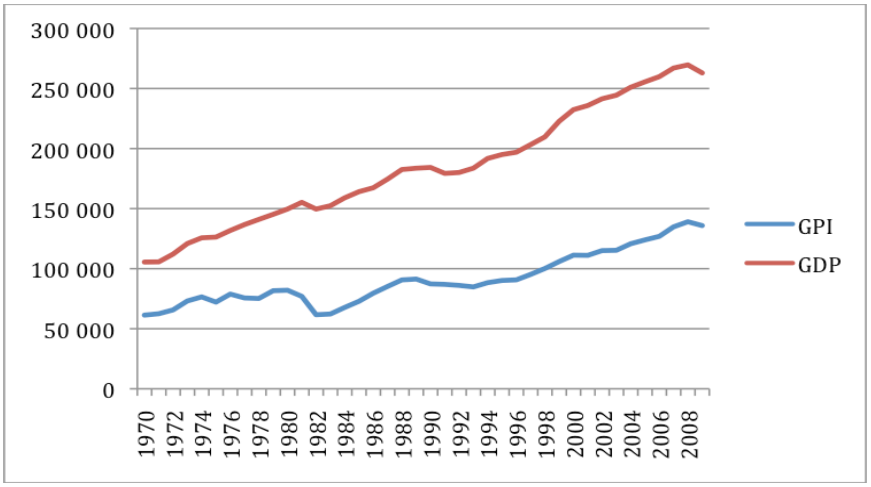
My career of over forty years trying to gain some recognition of this situation has been a complete failure, if I judge it in terms of "results-based management": there is no doubt that the planetary crises we face today are far worse than they were when the "environmental movement" and social activists began to recognize the important externalities of our development processes, back in the 1960s. Today, we are faced with crisis management over a wide range of activities, including those most fundamental to our lives. Somewhere back in the 1970s, we needed to recognize that the paradigm of development for the rich countries required a serious transformation, but that paradigm shift has still not been put into place.

On the contrary, even the richest countries still think that their development requires continued growth, President Obama seeing this as the salvation for his country beset with awesome challenges while at the same time that country is responsible for a use of resources and pollution of the planet on a scale that no other nation comes close to matching – and the Chinese are having great difficulty finding a paradigm for their development other than that of the rich countries during the period since World War II, while they seem to know (witness their activities in various international fora) that following that paradigm is simply impossible.

The debate over growth and de-growth has never taken hold, even if its foundations are hard to challenge. Other approaches seem called for, and ecological economists have proposed recourse to the Genuine Progress Indicator (GPI) as an almost evident first step, integrating into our economic measure of development the costs of the externalities which it has caused and continues to cause. In 1989, Herman Daly formulated the first GPI, for the United States, and the results indicated that the GDP, the ultimate indicator of the growth of contemporary economies, overestimates by half the results of that economic activity. Subsequent calculations have confirmed this result, for the United States and for other countries.

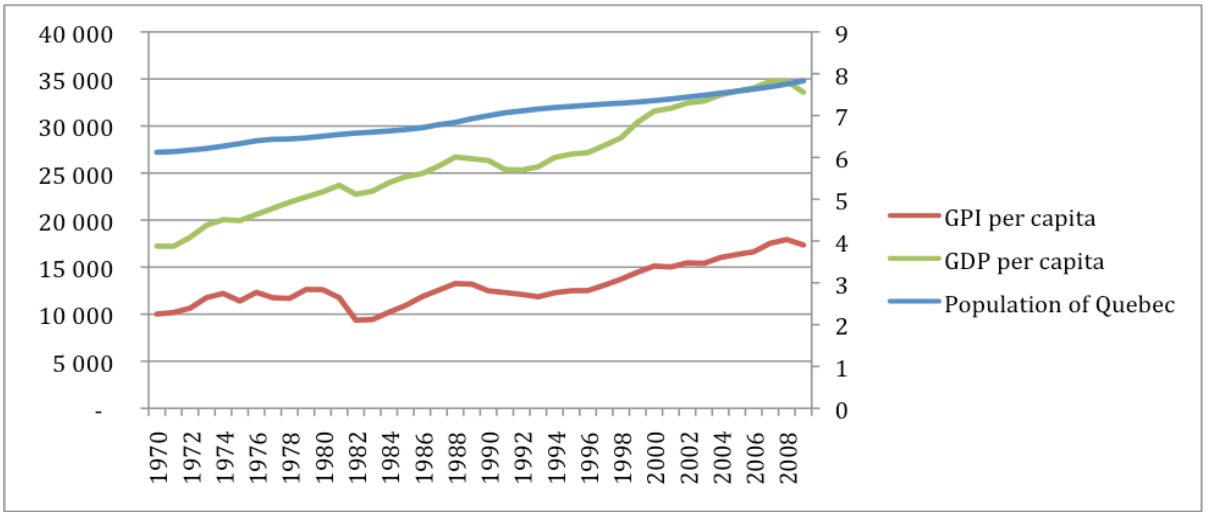
This is the result of calculations for the Quebec GPI as well, work which I carried out over the past two years. It shows the striking difference between the two indicators, globally:

**Figure 2 : The GPI and the GDP for Quebec, 1970-2009 (M$ 2002)**



and between these same indicators, on a per capita basis:

**Figure 3 : The GPI and the GDP per capita for Quebec, 1970-2009 ($ 2002 and millions of individuals)**

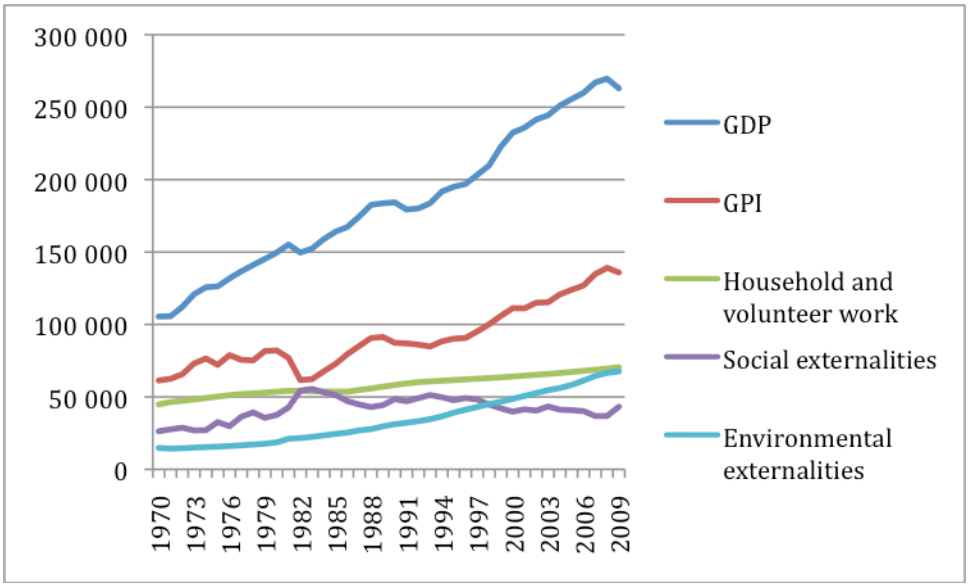



As Sustainable Development Commissioner for Quebec in 2007-2008, I proposed to audit the government by developing a GPI as the framework against which to evaluate the progress of the province. While this didn't work out, I was able to carry out the exercise on a personal basis and, in June of this year, published the GPI for Quebec.[1] This work was done in French, and in the rest of this text I sum up the results, in the hope that it might be of interest to English-speaking professionals and activists concerned about our situation and seeking ways to begin dealing with it, even as time is running out.

The key strategy of the GPI is to tie its calculations to the GDP, which it does by taking as its basis the part of the GDP which represents the direct benefits of economic activity for the population, namely what it labels "personal expenses" or "consumption". For the rich countries of the world, this element constitutes well over 50% of the GDP, normally more than 60%, and close to 70% for the United States. The calculation then proceeds by subtracting the costs, in the same monetary terms (dollars) as those used for the GDP, of the social and environmental externalities which the economic activity involved causes. It then adds the dollar value of non-market contributions to our development, primarily – it's the single most important component, for most GPIs (after the GDP's consumption) – household and volunteer work.

[1] Harvey L. Mead, avec la collaboration de Thomas Marin, *L'Indice de progrès véritable : Quand l'économie dépasse l'écologie*, 414 pages, MultiMondes (2011).

**Figure 4: The GDP and the additions and subtractions made to calculate the GPI**




The Quebec GPI is presented in the form of a development narrative: the first part of the book evaluates the costs of the transformation of the territory in order to permit the permanent establishment of Quebec society there; the second part evaluates the costs of the economic activity carried out on the territory but not rooted in it, and includes a reflection on the demographic growth experienced during the period covered; the final part looks at questions associated with the ultimate progress of that society : health, education and indebtedness.

The territorial development of Quebec has important roots in agriculture (including the clearing of large swaths of the forest in its southern portion), forestry, fisheries and mining. With the progression of these activities, the society established permanent communities throughout the territory, and these took their toll on the land and on aquatic ecosystems. In the different chapters, calculations are carried out to provide a dollar cost for the externalities associated with each of these sectors of activity, as well as for air and water pollution and the transportation network. Because it is essential – as we now know – to establish benchmarks for the activity taking place, the first part of the book begins with an evaluation of the costs to the province and to its development of the absence of an adequate network of protected areas, whose role is to provide benchmarks for the activity being carried on in the rest of the territory.

The second part of the book looks more directly at the economic activity that is not territorial, with a special emphasis on the enormous contribution of household and volunteer work, not taken into account by the GDP because they are not market activities. The general implications for society of a demographic experience which saw Quebec more than double its population during the period covered are looked at as a context for the general portrait of activity. Another chapter looks at the costs to society of the high level of unemployment, which is attributed directly to the present economic paradigm. The costs of air pollution in urban areas, more closely related to the non-territorial development, are also subtracted; in very large part, these are associated with premature death due to particulate emissions. Finally, summing up several of the externalities of both territorial and non-territorial economic activity, a final chapter in the second part evaluates the costs of Quebec's cumulative and ongoing emissions of greenhouse gases - the costs of its

contribution to climate change. The costs of unemployment and of greenhouse gas emissions are the two most important subtractions introduced by the GPI, and the value of household and volunteer work is the most important (essentially the only) addition to the indicator.

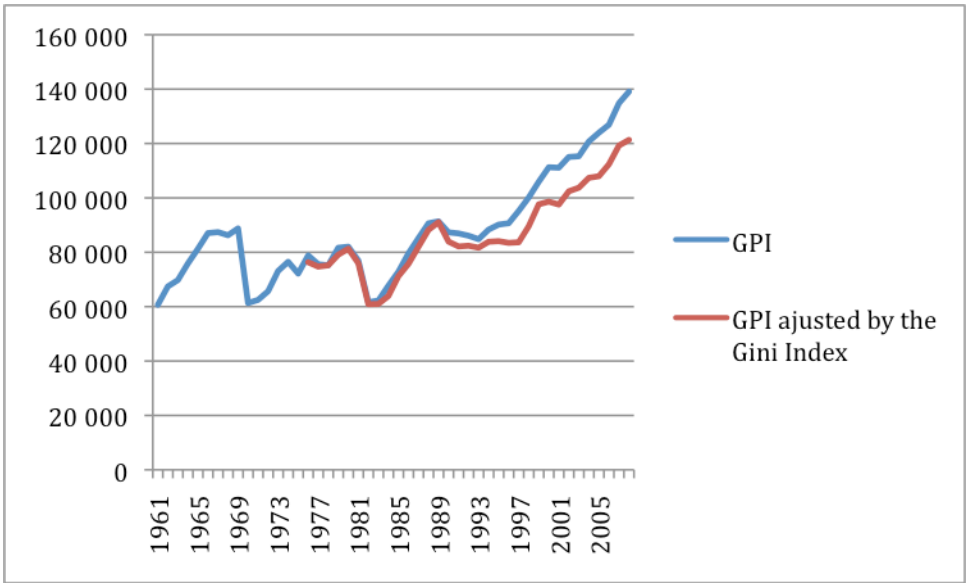
Demographic growth contributes directly to the economic activity of the society, and to the value of the GDP which follows that activity. Considerable attention is currently being paid to the fact that the aging of the population is preventing the « replacement of generations », but no such attention was paid to the fact that, from its very beginnings, Quebec's population (and that of almost all the societies in the world) has been constantly increasing the size of the "generation" that demographers suggest should be "replaced". The enormous constraints on the world's efforts to deal with its development paradigm and its development problems that arise from the fact that its population has grown from approximately 2 billion to 7 billion is the background phenomenon for the presentation of the challenges associated with Quebec's demographic experience.

The third part of the book, on the "finality" of development, begins with a short presentation of the consumption component of the GDP, the part of economic activity which most directly represents progress for the society. Over the course of the period since the Tranquil Revolution covered by the GPI, 1970-2009, this component represents a value greater than the GPI, which reduces it by two-thirds via the numerous subtractions required; the addition of the value of household and volunteer work then brings the value of the GPI to a level still below that of the consumption component of the GDP, and to approximately half of the GDP itself (cf. Figure 4). The third part also analyses the manner in which an important part of the progress apparently made has required an indebtedness that goes considerably beyond that associated with investment, and subtracts the interest on that debt.

The GPI then looks at the progress made in the health and education sectors, taking these as among the primordial elements of human well-being after the basic requirements of food, clothing and shelter are taken care of. This progress is reflected directly in the consumption component, and is not therefore attributed a separate value in the GPI. It nonetheless merits particular attention because the increase in life expectancy in good health (almost five years added) and the level of educational achievement (a quintupling of baccalareats) are among the most significant results of Quebec's development in recent decades.

The calculation of the GPI traditionally includes an adjustment to take into account the degree of equality achieved within the population, in the course of the society's progress. The calculation is made using the Gini Index. We have decided not to include this calculation, in order to maintain the direct link between the GDP and the GPI in monetary terms. It is nonetheless a factor of significant importance in evaluating the progress of a society: for example, China and the United States are more or less on a par in this regard, showing the greatest inequality within their populations among the major countries of the world. Quebec society is considerably more equitable in the distribution of its development gains, although this has been decreasing over the years. In 2009, an application of the Gini Index leads to a 10% reduction in the per capita GPI:

**Figure 5 : The GPI for Quebec, with and without adjustment for social inequality**




The implications of the work on the GPI are not immediately evident in terms of actions to be taken, of corrections that must be brought to bear. The Conclusion looks at a whole series of elements of the overall portrait of Quebec's development, with this in mind: as already mentioned, unemployment and climate change are clearly the most important negative components of that development, in monetary terms. The first requires the adoption of a completely new paradigm, where a reduction in working hours would be associated with a much more equitable sharing of the work available among Quebec's working population. The second requires a wholesale transformation of many of the activities of the population, dependent for close to 50 % of its energy needs on oil, for transportation, much manufacturing and agriculture.

Any positive aspects of agriculture and forestry are shown/indicated to be local, the attempts to participate in international commerce reduced more or less to naught when confronted with the externalities of those attempts. Mining, as mentioned in the chapter on the subject, is essentially an elimination of a part of Quebec's natural capital, and it is proposed that the government retain the entirety of the monetary value of shipments, tantamount to a nationalisation of this sector. The fisheries sector, important to a small portion of the population, but one almost totally dependent on it, has in large part disappeared already with the collapse of the groundfish populations.

The extremely important non-market role played by household and volunteer work would seem to offer some perspective on aspects of the transformations required in the near future. These relate to the parallels between this work and the activities of the "social economy" sector. This latter has remained marginal over the course of the past several decades, but played a more important role in an earlier period, and seems clearly to offer insights into what is needed in the future; in particular, work and, more generally, social activity must have a much less important impact on the environment, in absolute terms, and resolve some of the inherent weaknesses in the present economic paradigm.

This perspective is ultimately that which the GPI offers in response to the extraordinarily destructive potential of continued growth in economic activity, where rich countries are clearly identified as using excessive amounts of the earth's resources and support capacity, and poor and emerging countries are confronted with very important limits to their ability to follow in the path of the rich countries, and the need to adopt a new paradigm.

The consensus is there – the recognition is in fact almost straightforward - that the GDP is not very pertinent to making the decisions which will be required, but the inertia in the thinking of economists, especially those in our departments of finance, and among the decision-makers who place their ultimate confidence in these economists and these departments, is blocking the change of paradigm. The alternative to the implementation of a paradigm change is quite likely catastrophe, and that within the next decade or two.[2]

[2] Cf. Thomas Homer-Dixon, *The Upside of Down : Catastrophe, Creativity and the Renewal of Civilisation* (2006) and Maurice Strong, *Where On Earth Are We Going?*(2000)