Contribution to Beyond GDP Virtual Indicator Expo

http://www.beyond-gdp.eu

Name of the indicator/method: **Genuine Progress Indicator (GPI)**

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Sustainable Development and the Genuine Progress Indicator
An updated methodology and application in policy settings
(http://www.rprogress.org/sustainability_indicators/genuine_progress_indicator.htm)

What is the Genuine Progress Indicator?

During World War II gross domestic product (GDP) accounts were introduced to measure wartime production capacity. Since then, GDP has become the world's most ubiquitous indicator of economic progress. It is widely used by policymakers, economists, international agencies and the media as the primary scorecard of a nation's economic health and well-being. Yet, as we know from its creator Simon Kuznets the GDP was never intended for this role. It is merely a gross tally of products and services bought and sold, with no distinctions between transactions that enhance well being and those that diminish it. Instead of distinguishing costs from benefits, productive activities from destructive ones, or sustainable ones from unsustainable ones the GDP simply assumes that every monetary transaction adds to social well-being by definition. In this way, needless expenditures triggered by crime, accidents, toxic waste contamination, preventable natural disasters, prisons and corporate fraud count the same as socially productive investments in housing, education, healthcare, sanitation, or mass transportation. It is as if a business tried to assess its financial condition by simply adding up all "business activity," thereby lumping together income and expenses, assets and liabilities.

Beginning with the seminal work of Daly and Cobb (1989) there have been several attempts to develop alternative national income accounting systems that address these deficiencies. Collectively, these systems measure what is commonly referred to as "green" GDP. Major objectives of these green GDP accounting systems are to provide a more accurate measure of welfare and to gauge whether or not an economy is on a sustainable time path. Two of the most popular green GDP systems are the Index of Sustainable Economic Welfare (ISEW) and the Genuine Progress Indicator (GPI). While methodologies differ somewhat, the ISEW, GPI, and other green GDP accounting systems all involve three basic steps. Computation usually begins with estimates of personal consumption expenditures, which are weighted by

an index of inequality in the distribution of income to reflect the social costs of inequality and diminishing returns to income received by the wealthy. Additions are made to account for the non-market benefits associated with volunteer time, housework, parenting, and other socially productive time uses as well as services from both household capital and public infrastructure. Deductions are then made to account for purely defensive expenditures such as pollution related costs or the costs of automobile accidents as well as costs that reflect the undesirable side effects of economic progress. Deductions for costs associated with degradation and depletion of natural capital incurred by existing and future generations are also made at this stage. Table1 provides a line by line summary of these adjustments in 2004 for the U.S. GPI, the latest year for which data are available. By making these adjustments, the GPI corrects the deficiencies of GDP by incorporating aspects of the non-monetized or non-market economy, separating welfare enhancing benefits from welfare detracting costs, correcting for the unequal distribution of income, and distinguishing between sustainable and unsustainable forms of consumption.

What Improvements Were Made in 2006?

The GPI 2006 Update makes a number of improvements and additions to the basic GPI methodology first developed in the late 1990s. These improvements can be grouped under two broad headings: new data sources and new calculations. Examples of new data sources include the Bureau of Labor Statistics' American Time Use Surveys (ATUS) in 2003 and 2004. The new ATUS data was used to improve our calculations of the value of housework, parenting, and volunteering. As another example, we incorporated new research from the U.S. Forest Service on logging related erosion and deforestation. We also used new data as well as new valuation studies to assign costs to farmland, wetland, and forest losses.

The GPI 2006 update also includes calculations that did not appear in our previous GPI publications. One calculation is the non-market benefits associated with higher education – benefits that amount to $16,000 per year per college educated worker. We expanded our deforestation estimates to include economic damages associated with loss of roadless areas, ancient forests in the Pacific Northwest and Alaska, and loss of loblolly pine forests in the Southeast. We also added carbon emissions damage to reflect the ever-increasing costs of global warming. A complete column by column explanation of these improvements appears in the full report.

Key Results from the 2006 Update

Figure 1 shows GPI account trends for the 1950 – 2004 period. The results are alarming. While per capita GDP has risen dramatically – from $11,672 in 1950 to $36,595 today, per capita GPI has stagnated in the $14,000-$15,000 range since the late 1970s. This implies that since the late 1970s, the benefits of economic growth have been entirely offset by rising inequality, deteriorating environmental conditions, and a decline in the quality of our lives. Key findings of our 2006 update include:

- Drought, floods, sea level rise, and severe storms exacerbated by global warming are taking their toll on the U.S. economy. Conservatively, we estimate the costs of our carbon emissions on existing and future generations to be just over $1 trillion per year.

- Income inequality is at its greatest level since 1950. The income distribution index – which measures income inequality – increased by 20% since 1968, the year the nation's income was distributed most equitably. When growth is concentrated in the wealthiest income brackets it counts less towards improving overall economic welfare because the social benefits of increases in conspicuous consumption by the wealthy are less beneficial than increases in spending by those least well off. So a dollar of economic growth today counts far less than it did when our income distribution was more equitable.

- Urban sprawl gobbles up prime farmland, increases commute times, exacerbates urban air, water, and noise pollution, and increases accident rates. We estimate the costs of urban sprawl to be over $1.1 trillion each year.

- Globalization has exported America's vast manufacturing infrastructure overseas and with it a source of productive investments. As a result, an increasing share of foreign investment in the U.S. today is used to finance consumer debt and government spending for tax breaks and the wars in Iraq and Afghanistan. This puts us in the position of being a net borrower. Net borrowing today is a record $254 billion, a cost overlooked by GDP.

- The GDP counts all $600 billion plus spent on wars each year as a benefit – despite the fact that over half of all Americans disapprove of the war and decry its daily toll on American families, our long term security, the environment, Iraqi and Afghanistan societies, and our international reputation. The GPI recognizes that this spending is defensive – at best it helps maintain the status quo, at worst, it is a liability on our future. In any case, it should not be counted towards progress.

- The increase in the number of college graduates in the population is increasingly paying off in the form of many non-market benefits such as increases in the stock of knowledge, worker productivity, civic participation, job market efficiency, savings, research and development activities, charitable giving, and health. These benefits amount to roughly $828 billion each year.

- Volunteerism is on the rise, and represents some of the most valuable work performed in our country. The GPI estimates the value of volunteer work in America to be over $130 billion. On a per capita basis, the value of work performed by churches and synagogues, civic associations, neighborhood groups, and non-profits rose from $202 in 1950 to $447 today, implying that over the past few decades, Americans have become more generous with their time.

Towards National Programs on Genuine Progress Accounts

RP is seeking government and NGO partners to launch national level Programs on Genuine Progress Accounts to make GPI a regular component of national and sub-national economic performance measurement, program and project assessment, higher education curricula, and economic media coverage. National and sub-national GPI accounts would be supported by ongoing non-market valuation studies coordinated at major universities and NGO institutes. While national level leadership is important, as with climate change, it may well be that local government leadership will be the key driver of change. Thus, we seek partners

who can help develop GPI adaptations at the local level and demonstrate GPI's relevance in multiple policy settings such as debates over land use, taxes, living wages, and localization.

Figure 1: GPI vs. GDP Time Trends

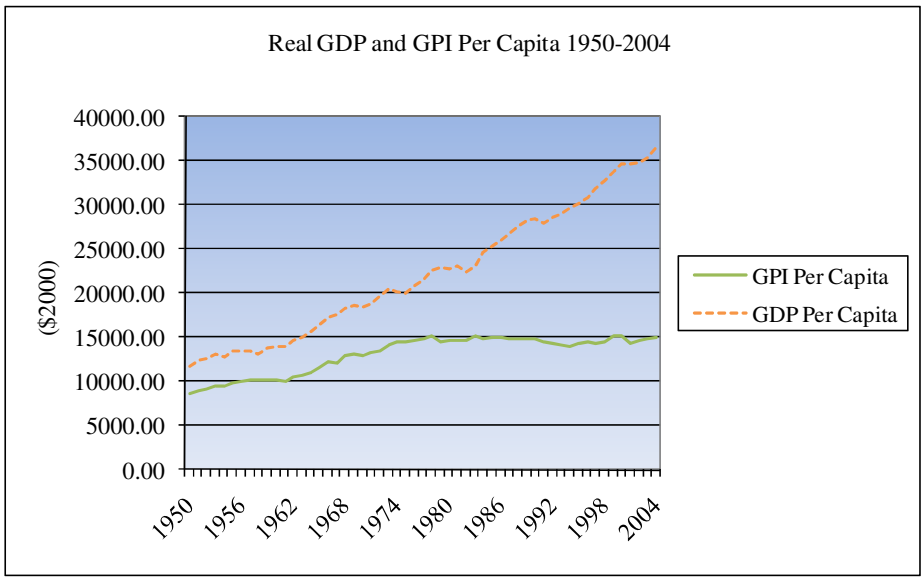

Table 1: U.S. GPI Contributions and Deductions (2004)

Contributions		Amount (Billions)
Personal consumption expenditures		$7,588.60
Weighted personal consumption expenditures (adjusted for inequality)	+	6,318.41
Value of housework and parenting	+	2,542.16
Value of higher education	+	827.98
Value of volunteer work	+	131.30
Services of consumer durables	+	743.72
Services of streets and highways	+	111.55
Net capital investment (positive in 2004, so included in contributions)	+	388.80
Total positive contributions to the GPI:		*$11,063.92*

Deductions		Amount (Billions)
Cost of crime	-	$34.22
Loss of leisure time	-	401.92
Costs of unemployment and underemployment	-	176.96
Cost of consumer durable purchases	-	1089.91
Cost of commuting	-	522.61
Cost of household pollution abatement	-	21.26
Cost of auto accidents	-	175.18
Cost of water pollution	-	119.72
Cost of air pollution	-	40.05
Cost of noise pollution	-	18.21
Loss of wetlands	-	53.26
Loss of farmland	-	263.86
Loss of primary forest cover	-	50.64
Depletion of non-renewable resources	-	1,761.27
Carbon emissions damage	-	1,182.82
Cost of ozone depletion	-	478.92
Net foreign borrowing (positive in 2004, so included in deductions)	-	254.02
Total negative deductions to the GPI:		*$6,644.83*

Genuine Progress Indicator 2004:	**$4,419.09**
Gross Domestic Product 2004:	**$10,760.00**