



MULTI DIMENSION IMPACT ACCOUNTING (MDIA)

The Scale of Modern Economic Activity

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Recently I was asked the following:

You state 'the scale of economic activity is essentially bigger than nature'. What are the metrics for that?

My quick response was as follows:

... perhaps the biggest energy issue on the planet is the shortage of firewood. Most of the world's poor are now having to spend much more time collecting firewood for cooking than at any time in the past. We are talking about hours rather than just some minutes. Put another way, the wood that used to be within a couple of hundred yards is now several miles away.

This may not be the metric that you were looking for ... but it is very relevant for maybe as many as 2 billion people.

People are both the reason for economic activity and the producers of economic activity. Without people, there is no need for the 'man-made' component of economic activity. People produce what people need, and people consume what people need. They do this with the help of nature and with the help of a man-made built environment.

People and nature have coexisted for many millions of years with a very measurable change in the activities of people and the impact on nature over the past 500 years, and especially over the past 50 years.

Contemporary accounts of London at the end of the 19th century suggest that the pollution in London was intolerable. The stench associated with traffic jams and horse-drawn carriages combined with what we now call municipal waste was awful. Fast growing cities around the world more than 100 years later have pollution problems that are different but similar.

Trees are a bit part of nature, but there are many more people now than 500 years ago and many less trees. People use trees far faster than nature is able to replace the trees that are consumed. England and most of Europe had tree cover in the Middle Ages but not any more.

In the 19th century significant deforestation in the United States was caused by wood burning steam locomotives and wooden ties used in the building of the railroads' permanent way.

The vast resources of fossil fuel are really not so vast. They took a very long time to produce ... millions and millions of years. Companies engaged in the exploitation of these fossil fuel resources talk about increasing reserves, but this is merely a measure of what the company knows about.

The idea that fossil fuel resources will last another 200 years (for petroleum) or even 600 years (for coal) is a blip in geological time and in human history.

But fossil fuel is also problematic because the waste gases from burning carbon based fuels ends up in the atmosphere which in turn is changing the climate in a significant and quite unpredictable way.

Food is another pressure point. Over the past 500 years agricultural productivity has increased in an impressive way. Nearly 8 billion people on the planet today have access to more food than less than 1 billion people had 200 years ago. Some of this productivity cannot be sustained because of the depletion of the soil, the runoff pollution into the rivers and oceans, the increasing resistance to pest control measures and the shortage of water.

The shortage of water is probably going to be bigger than the shortage of energy unless the waste of water is addressed. Most industrial processes use massive amounts of water, which used to be of little consequence when industry was small and located in places where rain was abundant. This ended a long time ago and water waste is an issue that now must be addressed.

Yet there is good news. Some of the sun energy that hits the planet every day is used to power nature, but almost none is used to support man-made economic activity. The potential energy associate with the sun has a scale that is in line with the geological time line of human existence past and hopefully into the future. One day, this wasted potential energy from the sun will be used in a substantial manner.

More good news is that the technology that we now know about will enable a level of socio-economic efficiency that is way better than anything that has been possible in the past. For these new technologies to be deployed on a significant scale, there will have to be decision making that goes beyond profit performance and financial returns.

More than anything else, the purpose of TrueValueMetrics and Multi Dimension Impact Accounting (MDIA) is to enable rapid change to a more efficient society and environment.

Peter Burgess – TrueValueMetrics
Multi Dimension Impact Accounting

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Contact information for Peter Burgess: Founder / CEO ... TrueValueMetrics

Website: <http://truevaluemetrics.org>

Email: peterbnyc@gmail.com

Skype: peterburgessnyc Twitter: @truevaluemetric

LinkedIn for Peter Burgess : www.linkedin.com/in/peterburgess1/

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