



## Can the Future be Abundant?

University of Oregon class talk given by Ravi Logan

There has been much focus in this class on oil depletion, on peak oil. I would like to build on this awareness and suggest that oil depletion is best understood as an epiphenomenon of the nature of the global economy.

Mae-Wan Ho, of King's College at Cambridge University, has characterized the nature of the global economy as being an 'environmental bubble economy'. This image borrows from the concept of an 'investment bubble' – an investment situation in which the collapse of an unsustainable speculative investment mania is inevitable.

The environmental bubble economy is 'built on the unsustainable exploitation of natural resources' and— like an investment bubble -- it is headed for collapse.

You know that oil production is at or near peak. But other important non-renewable resources are also at, or will soon come into the same situation:

- Declining production of natural gas is only a few years behind oil.
- Production of a number of strategic metals, such as copper and uranium, is in decline.

More significantly, production of some important renewable resources – resources that are constantly replenished by nature – are steadily dropping.

- Most fish stocks are in serious decline.
- The production of most timber stands has peaked and is in decline (as we well know here in Oregon).
- World grain yield appears to have been in decline since about 2001.

Even more serious is the condition of the basic materials upon which the productive capacity of the earth – and of human economies – depend.

- Top soils are being heavily depleted.
- Desertification is unrelenting in its advance.
- water levels of most aquifers of economic importance are dropping.
- Water quality is in serious decline in most of the world.
- Air quality is in similar decline—with pollution now reaching us from China.
- The resilient fabric of many ecosystems is coming unraveled.
- Biodiversity is being lost at a rate estimated by E.O. Wilson to be about 27,000 species per year – 10,000 times the background extinction rate.

- And the climate stability that provided essential conditions for the development of civilization is now undergoing accelerated destabilization.

Lester Brown, whose annual 'State of the World' reports have monitored global conditions since the early 1980s, succinctly summarized the impacts of the environmental bubble economy: 'collapsing fisheries, shrinking forests, expanding deserts, rising CO2 levels, eroding soils, rising temperatures, falling water tables, melting glaciers, deteriorating grasslands, rising seas, drying rivers, and disappearing species.'

This toll on the earth is what will burst the environmental bubble economy. There is a factoid that succinctly conveys that the beginning of this bursting has begun: The global carrying capacity of the earth was reached in about 1980; by 1995 it had been surpassed by 20 percent – a trend that has since deepened with accelerating speed.

But if we are to look holistically at the phenomenon of depletion, then we must go beyond its expression in the economic sphere. Compelling cases have been made that:

- there is depletion of our collective intelligence
- there is depletion of the quality and relevance of information we are being provided to function effectively as citizens
- there is depletion in economic equity
- there is depletion in the social safety net
- there is depletion of the quality of democratic institutions and governance
- there is depletion of our immune systems and of psychic vitality
- there is depletion of our capacity for meaningful expression of civil liberties
- there is depletion of meaningful and vitalizing culture

And so forth. At a time when our society is almost certain to face unprecedented challenges from the collapse of an unsustainable global bubble economy, those factors which sustain social and personal vitality are being depleted, so as to leave us less potent to adequately respond.

Given these alarming trends, it is understandable that talk of collapse is increasingly in the air. A few examples:

- There's renewed interest in Joseph Tainter's comprehensive study of the collapse of past civilizations.
- Richard Heinberg, author of popular books 'The Party's Over' and 'Peak Everything' took this city by storm this winter.
- Michael Ruppert, whose book 'Crossing the Rubicon' remains one of Amazon.com's most popular titles, drew a big Eugene crowd at his talk here.
- James Howard Kuntsler, author of 'The Long Emergency', gave a well attended lecture at the University of Oregon.
- Jared Diamond's book, 'Collapse' long held its place on the New York Times' best-seller list.
- And organizations like the Lifeboat Academy and the Post Carbon Institute are finding increasing interest.

## The Need for a New Paradigm of Development

In as short of a way as possible, I'm suggesting to you that what is needed is not simply the implementation of a global oil depletion allowance protocol, or the following of a soft energy path, etc.

What is *absolutely* required is the adoption of a new paradigm of development. Anything less cannot ensure sustainability; anything less can only, at best, attenuate the time until collapse.

To provide us a truly viable and sustainable future, such a new developmental paradigm must be modeled on the way nature works. It must recognize that human society is seamlessly imbedded within a larger fabric of life, and that those principles which pattern the harmonious and fruitful development of the natural world are no less relevant to human social and economic development.

This brings me to permaculture. Permaculture is a design system which has been applied to natural resource management and which models the functioning of natural systems.

It can be shown that, by use of permaculture design principles, yields of useful resources can not only be greatly increased in amount, but do so with less imported inputs and while sustaining - and strengthening - the productivity of the concerned natural system.

## Comparison of Three Agricultural Systems

At a keynote address at EarthDay, I made a hypothetical comparison of the agricultural productivity of three different systems of agriculture as a way of illustrating the power of the permaculture paradigm. By productivity I mean productivity not only per land used, but productivity per amount of imported energy going into food production.

The three systems compared were conventional agriculture, organic farming, and permaculture. I do not have time to review such a comparison here.

But here is one quantified indication that I can quickly offer in support of this assertion: permaculturist, Joshua Smith, at a recent training conducted by the Prout Institute, reported on studies that show that productivity drops by as much as 90 percent when farmers in developing countries who are skilled in traditional farming adopt green revolution agricultural practices. He also reported that farmers who went from green revolution agriculture back to traditional farming and saw their yields increase by several times. Many of these traditional agricultural practices are permacultural in nature (though I doubt that any of them make full use of the permaculture design paradigm).

## Beyond Permaculture

These yield increase figures are certainly dramatic. But there are yet far greater gains in agricultural productivity that could be realized by adopting design approaches that come from PROUT – from the Progressive Utilization theory.

Like permaculture, PROUT's design principles are congruent with the way nature works; so sustainability is inherently maintained. Unlike permaculture, but complimentary to it, PROUT's focus of application is at the socioeconomic level. It provides a well thought through vision for creating a vital, decentralized economy; one that is well-adapted to local culture and local needs.

What would PROUT add to the gains possible through permaculture design? Here are some representative benefits:

- Farming would be operated mainly by agricultural cooperatives, allowing for a pooling of resources, greater efficiency of land use, coordination of marketing, and efficiency in labor distribution.
- Decentralized economic planning bodies would help mobilize capital and develop infrastructure on the basis of meeting collective needs, enhancing productivity, and improving standards of living.
- Planning at a bioregional level would seek to create a high degree of regional self-reliance, thus minimizing the need for costly imported goods and reducing dependency.
- The economy would be controlled by local people and local enterprises. Outside economic interests would have no place. Among other benefits, this would protect the local economy from drainage of capital – keeping money circulating where it can best develop the wealth of the local people.
- Rural areas would be valued for the basic materials used by the local economy, so the economic development of rural farm communities would be given great importance. Many agro-industries would be sited in rural areas, immediately adjacent to the farm products these industries make use of. And there would be social and cultural enhancement of life in rural areas, which would greatly reduce the population flight of talented youth.

And so forth. What is important to grasp is the importance of adopting solution-oriented design principles to reenvision and reinvent our approach to development.

The future holds some measure of collapse – of this there is no longer doubt; it is already occurring. But it also holds the possibility of a social renaissance. Insecurity threatens, while the promise of sustainable abundance gives hope. Much will depend on the choices we make. What is needed is to let go of worn out and dysfunctional ways and to embrace a hopeful, solution-oriented new vision.

For those who have studied closely the Progressive Utilization Theory, there is every reason to believe that the future will be both abundant, and sustainable. There is

every reason to leave behind the environmental bubble economy and move toward the life economy envisioned by PROUT.