



Dennis Meadows: "Growth versus Development"

Posted by [Gail the Actuary](#) on March 1, 2010 - 10:25am

Topic: [Environment/Sustainability](#)

Dr. Dennis Meadows, one of the authors of [Limits to Growth](#), sent a [link to this short video](#) (8:34). Dr. Meadows made this video in Davos, Switzerland in September 2009, when he was there to participate in the World Resources Forum.

In the video, Dr. Meadows talks about growth, peak oil, and the possibility of collapse. Below the fold, you will find an approximate transcription of his talk, so you can read it if you prefer.

I am Dennis Meadows. I was for many years a professor in different universities in the United States.

I was born in 1942, about here [marking on graph]. 96% of all the oil that has ever been used in human history has been used since I was born. Global oil use--and now we are here [pointing to graph], global oil use has been something like this. [Marking top of oil production curve] and this is going to come down, in some way, we don't know [making several dotted lines]. Recently a German think tank expected that by 2030, so about here, oil will be half of current levels. So something like this [marking on graph].

The Challenge: Peak Oil

Society expects this [extending graph of growing historical oil production linearly upward], but we are going to get this [emphasizing downward slope]. What policies do we have to take, in order to

do this in a way so that this change is peaceful and equitable? It is possible if we prepare, but if we deny the problem, then we never will manage.

Growth versus Development

If you are a parent, and you have a child, then you will be very enthusiastic if for the first 18, maybe 20 years, the child becomes bigger, actually grows physically. It even is a source of happiness to you if your child is growing very fast. But after about 18 to 20 years, you don't want your child to grow any more; you want your child to develop--to become wiser; to learn foreign languages; to learn how to have important love relationships; to be a good parent; and so forth.

After 18 or 20 years, if your child continued to grow, becoming two meters, three meters, four meters, you would be very embarrassed, and actually you would be very worried about it. People would be quite amazed, and they would even laugh.

The Link to the Economy

Unfortunately, in the economy, we haven't made this distinction. There was a time in the rich Western countries when it was very useful to have physical expansion--increasing capital, increasing energy use, increasing consumption of materials, more and more buildings, and so forth. But we are far past that time now. Unfortunately, we got into the habit of doing things to cause physical growth, and we keep trying to continue those habits.

Development in Societies

We need to know how to convert the policies and the institutions which gave us physical expansion to ones which give us development--to the things that give us culture, understanding, peace, friendship, love, the things that are really important to society.

The Current State of Our Planet

Today there is a lot of worry and concern--you see it in the papers, you see it in the speeches of politicians--about climate change, about environmental damage, about falling water tables, about food and oil scarcity, and so forth. These are really not *problems*, they are *symptoms*. It is like your friend has cancer, and therefore has also a headache. The headache is a symptom. It is not in itself the problem. You can take care of the headache--you can give pain killers, or something, but if the headache goes away you don't imagine that the problem is solved.

Climate change, energy scarcity, these things are symptoms. Maybe we could solve them, maybe we won't. But even if we do, it doesn't eliminate the problem. The problem is physical growth, continued population expansion, continued increase in material standards of living, in a world that has finite limits.

The Danger of Collapse

Technically speaking "collapse" is a process where things go down, out of control. For example, if a building collapses, it falls down not under the control of anybody. Societal collapse is for the key indicators of our society--material standards of living, peace, trust in the government, and other things, to fall, without control.

Collapse is Near

The situation for us is kind of like living in a city which has earthquakes, let's say Tokyo or San

Francisco. I can tell my friend in San Francisco that with 100% probability there is going to be another really big earthquake in San Francisco-absolutely, no uncertainty about it. But when, that is the question. And how big? These are really important questions. We don't have any idea when. It could be tomorrow; it could be thirty years from now. The same thing with collapse. I know that the current growth in population and in material use cannot continue--absolutely, with 100% probability, that it is going to stop. When? How? How seriously? We have no scientific way to make predictions.

The Consequences

The longer we wait to do social measures, like birth control, or voluntary simplicity, the more likely it will be that physical measures will cause this decline.

Shortages of Oil, Water, and Food

If you ask me as a person to make my guess, I would say that food will be an important factor because it reflects many of the other issues. Definitely the climate is changing now, it is changing very quickly, that is for sure. Climate change will reduce the possibility for food production in many areas. That will cause problems.

Probably global oil production has already reached its maximum, I think in 2006, but for sure in this period. When energy becomes more and more expensive, many of the so-called modern farming technologies will become impossible; that will reduce food production. For example, without cheap diesel fuel, you can't pump up water for irrigation. If you have to quit irrigating land, and start using so-called dry land agricultural techniques, productivity will go down--less food. So I think food production will be an important factor, but it wouldn't be accurate to say that it is *the* problem or even the only problem.

Prof. Dennis Meadows, im Gespräch mit Bert Beyers, Davos, Sept. 2009



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