## Boston U. MET ML 720

# Food Policy & Food Systems

Fall, 2018 - Prof. E. Messer

Week 10 - (November 13)

## Biofuels, Land Grabs, and the Right to Food:

The Legacy of Colonialism and the Evolution of the Global Food System



## Timothy C. Weiskel

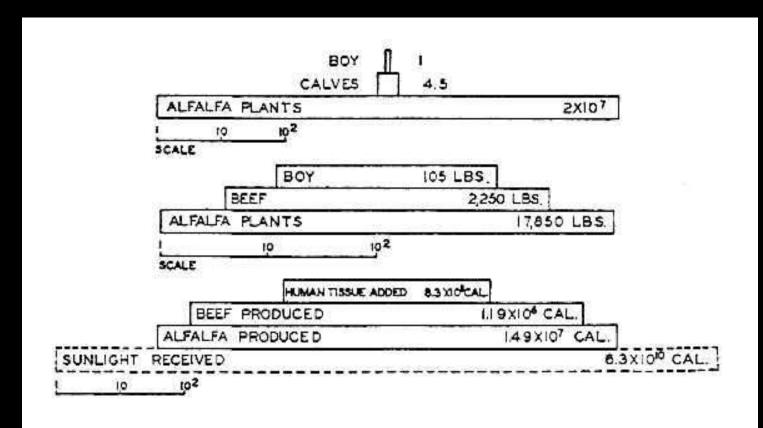
Cambridge Climate Research Associates (CCRA)

Transition-Studies.Net & Food-Matters.TV

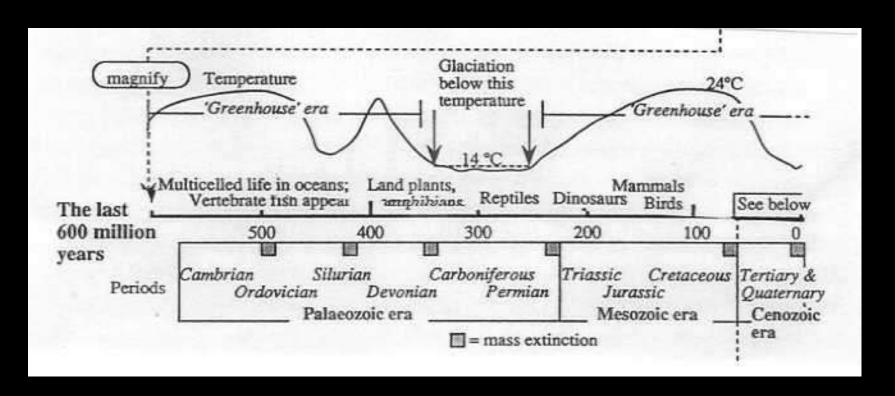
13 November 2018

## Where are we located in the structure of the ecosystem?

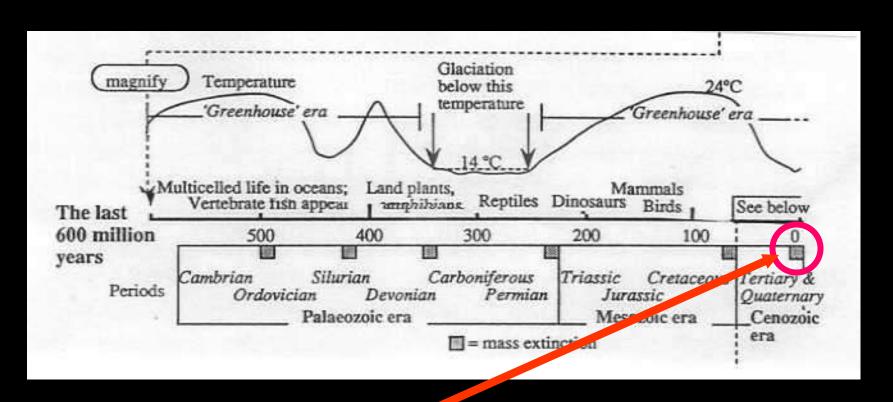
Where are we located as individuals -- and *as a species* -- in the circulation of materials and the flow of energy? Where are we in the web of life on earth?



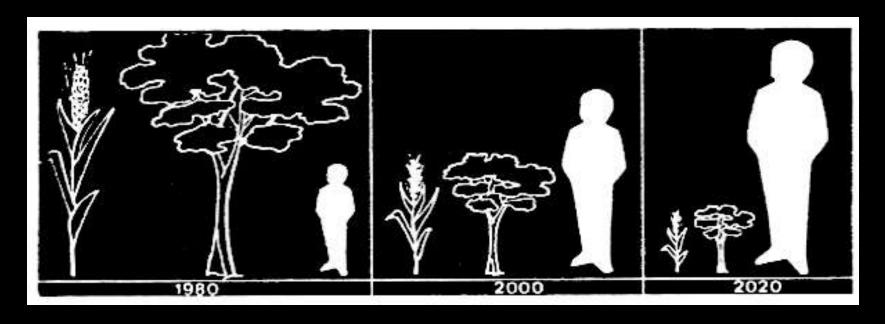
# And then, where are we located in Earth time?



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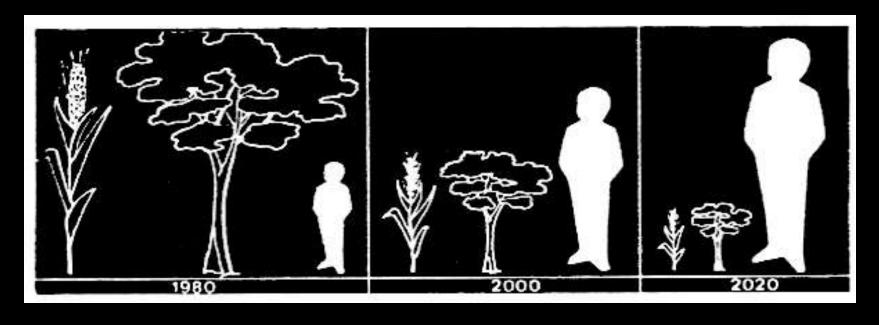


Sixth major mass extinction "episode" = now



Schematic representation of species ratio transformations through time. *Note bene* the pace and magnitude of the transformations we have become accustomed to as "normal" are systemically quite abnormal and cannot persist much longer.

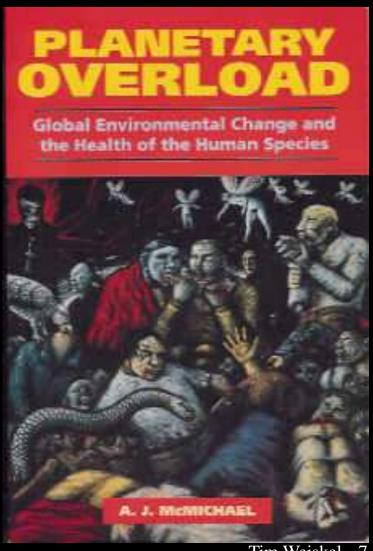
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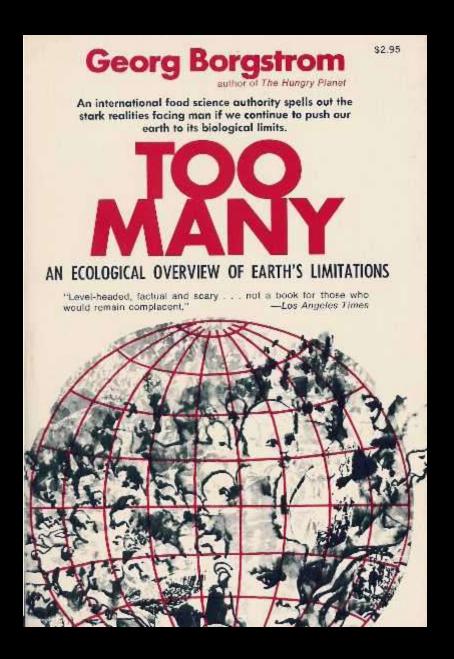
Remember, ... the trophic structure of the ecosystem is crucially important.

Therefore, in an ecosystem *ratios really matter*.

We can begin to ask about "overload" questions, but answering these questions will inevitably raise further (perhaps embarrassing or revealing) questions about ratios.

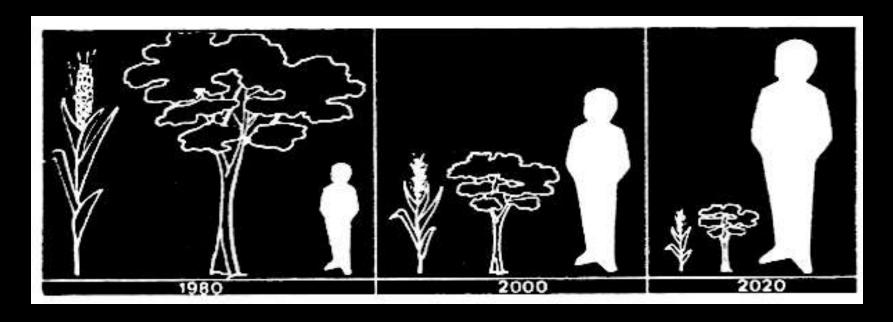


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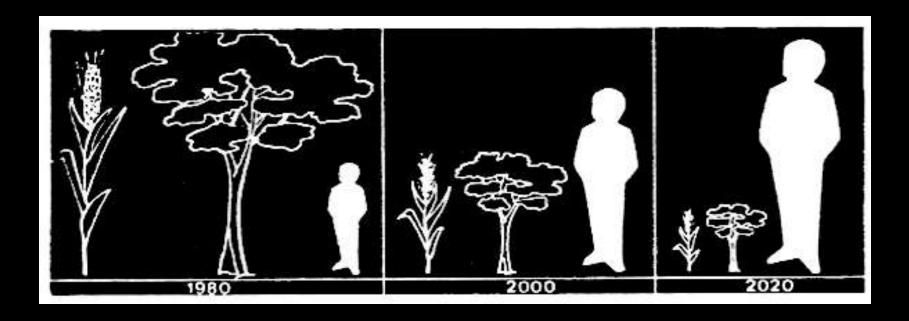


Some have already argued that there are too many humans currently alive and about to live for the planet to sustain them.

The international scientific community has been convened to address this question. And they have issued the *Millennium Ecosystem Assessment Report* (March 2005).



David Malakoff, "Report Urges Action Against Ecosystem Damage," NPR - Morning Edition, (30 March 2005). http://www.npr.org/dmg/dmg.php?prgCode=ME&showDate=30-Mar-2005&segNum=5&mediaPref=RM



Part of the problem comes from transforming the ratios between the "wild" species (forest tree), the "cultivated species" (stalk of wheat) and ourselves.

This 1995 UN Ecosystem Assessment Report is the largest and loudest warning signal from the environmental scientists ever.



## ENVR - E-120 - Fall Semester 2006 Environmental Ethics and Land Management

Harvard Extension School http://courses.dce.harvard.edu/~enwe120 Timothy C. Weiskel

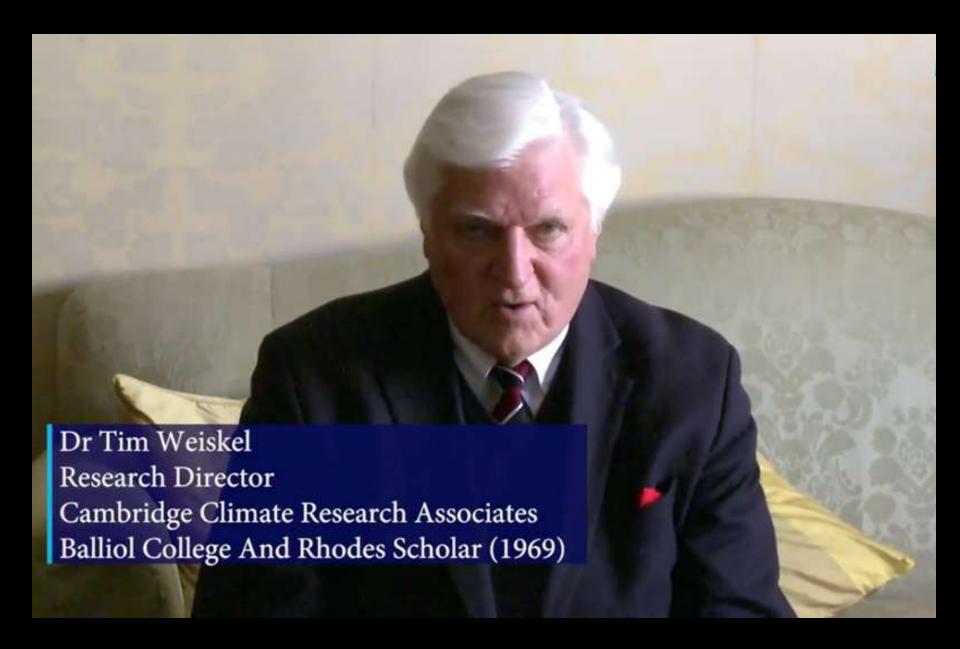
TWeiskel@FAS Harvard Edu Copyright, 0, 2008, Timothy C. Weiskel





No amount of genetic engineering will address the <u>ethical problem of limit</u> posed by the most recent scientific studies.





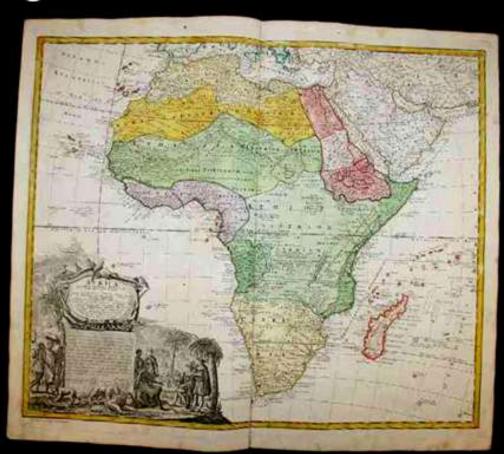
# "Tunisia: A Taste of the Future? Climate Change, Food Prices and Political Chaos

"Fueling the Coming Revolutions:

Climate Change, GMOs and
the Ethanol vs. Food Conflict"

# The Globalization of Food Production:

# The Atlantic Plantation System and the Origins of Africa's Food Crisis



# Q: Why has the human community side-stepped or ignored the "population" problem?

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## Agriculture pioneer Borlaug dies

Norman Borlaug, the man known as the father of the Green Revolution in agriculture, has died in the US state of Texas aged 95.

Prof Borlaug won the Nobel Peace Prize in 1970 for agricultural innovation and the development of high-yield crops.

The Green Revolution helped world food production more than double between 1960 and 1990 with Asia, Africa and Latin America in

Borlaug won the Nobel Peace Prize and

US Congressional Gold Medal

The Nobel Institute said he had helped save hundreds of millions of lives.

Prof Borlaug died late on Saturday evening at his home in Dallas from complications with cancer, said a spokesperson for Texas A&M University, where he had worked.

## 'A better place'

particular benefiting.

In the early 1960s Prof Borlaug realised that creating short-stemmed varieties would leave food plants more energy for growing larger heads of grain.

A: Because of our fanciful understanding of the ecosystem.

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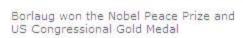
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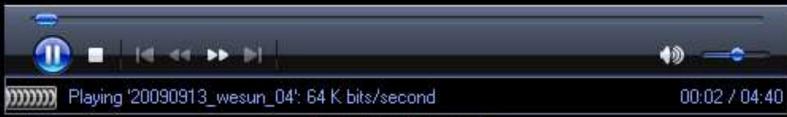
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"Green Revolutionary
Norman Borlaug Dies,"
NPR News
Weekend Edition, Sunday
13 September 2009

"Agriculture pioneer Borlaug dies," BBC News Online, (13 September 2009 07:37 UK 06:37 GMT, Sunday).

BBC



Click to Play, Pause, Stop

http://www.climate-talks.net/2008-ENVRE130/Audio/20090913-NPR-Borlaug-dies:http://www.climate-talks.net/2008-



BBC, Newshour, 13 September 2009

http://www.climate-talks.net/2008-ENVRE130/Audio/20090913-BBC-Borlaug-Newshour-obit.mp3.

Norman Borlaug (1914 – 2009)

## Population Growth Requires Second Green Revolution

Norman Borlaug Interview



Norman Borlaug accepting Congressional Gold Medal from President George W. Bush (July 17, 2007)



Norman Borlaug (March 25, 1914 -September 12, 2009) is known as the father of the Green Revolution.

His work with high-yield, diseaseresistant wheat varieties is credited with saving as many as a billion people from starvation worldwide.

Borlaug was awarded the Nobel Peace Prize in 1970 in recognition of

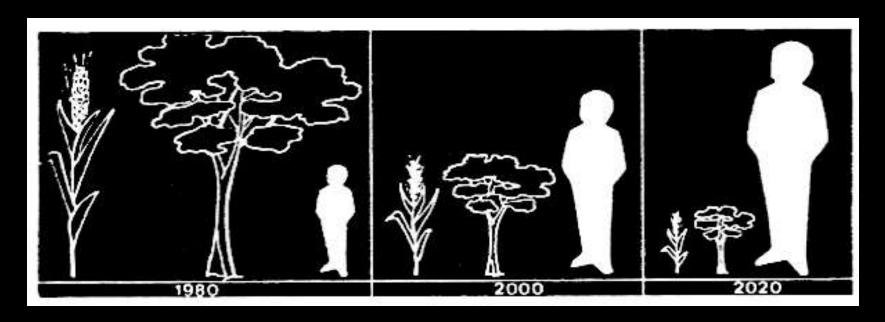
his contributions to world peace through increasing food supply.



"Greatest Man to Ever Live: Norman Borlaug,"
YouTube - CommonReason, (13 Septemer 2009).

http://www.climate-talks.net/2008-ENVRE130/Video/20090913-YouTube-Borlaug-Promoter.htm

Tim Weiskel - 22



Clearly the most basic problem of environmental ethics in Western civilization is that

We have largely 'forgotten' (and it may be that many of our leaders never knew) the basic ecological insight about our collective "niche" as a species in the global ecosystem.

Tim Weiskel - 23

Peace Prize

Peace Laureates

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Nomination and Selection of

Nobel Laureates

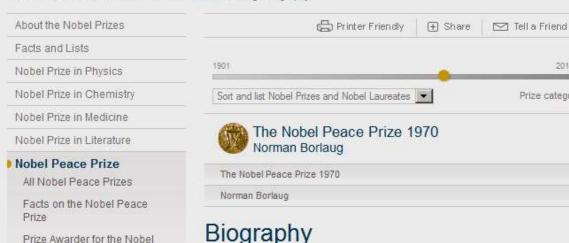
Nomination and Selection of

Nobel Peace Prize Medal

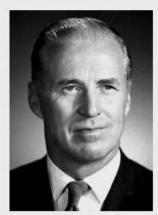
The Official Web Site of the Nobel Prize

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Home / Nobel Prizes / Nobel Peace Prize / Norman Borlaug - Biography



## Biography



A central figure in the "green revolution", Norman Ernest Borlaug (March 25, 1914-) was born on a farm near Cresco. lowa, to Henry and Clara Borlaug. For the past twenty-seven years he has collaborated with Mexican scientists on problems of wheat improvement; for the last ten or so of those years he has also collaborated with scientists from other parts of the world, especially from India and Pakistan, in adapting the new wheats to new lands and in gaining acceptance for their production. An eclectic, pragmatic, goal-oriented scientist, he accepts and discards methods or results in a constant search for more fruitful and effective ones, while at the same time avoiding the pursuit of what he calls "academic butterflies". A vigorous man who can perform prodigies of manual labor in the fields, he brings to his work the body and competitive spirit of the trained athlete, which indeed he was in his high school

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The Nobel Peace Prize

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NOBEL PRIZES Who Are the 2010 Nobel Laureates?

See a list of the eleven.

Nobel Laureates of 2010

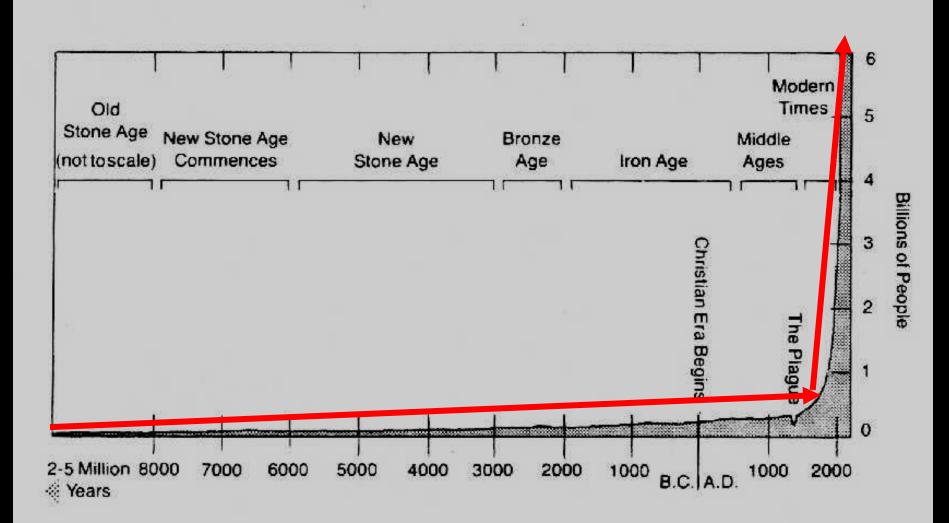
#### HAVE YOUR SAY!

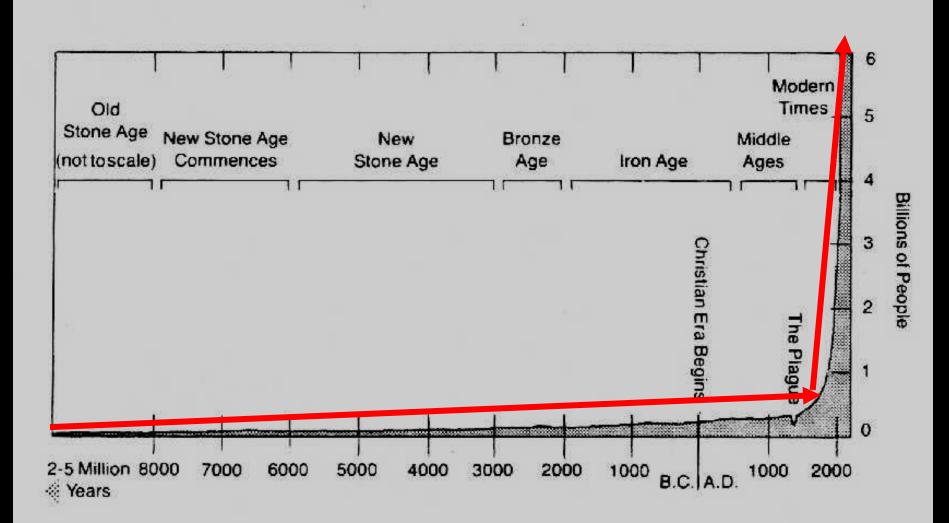


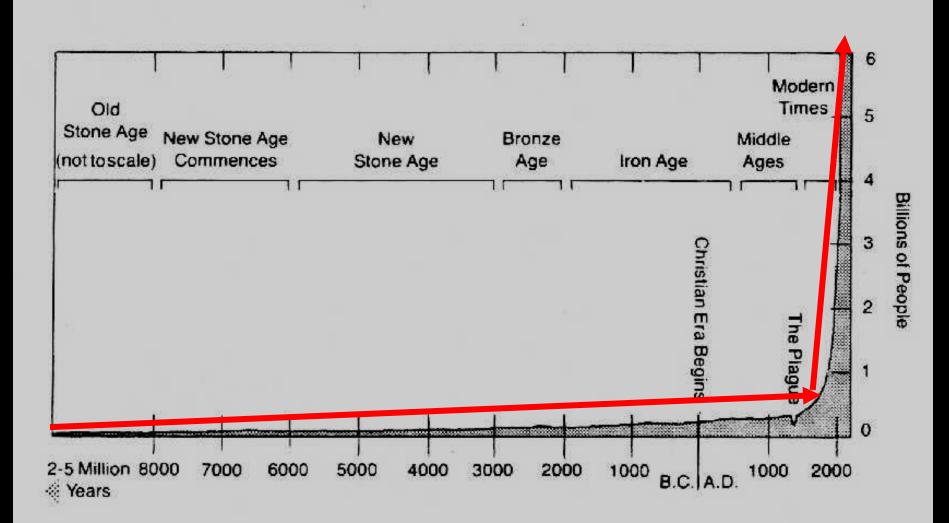
What do you hope to achieve in the future?

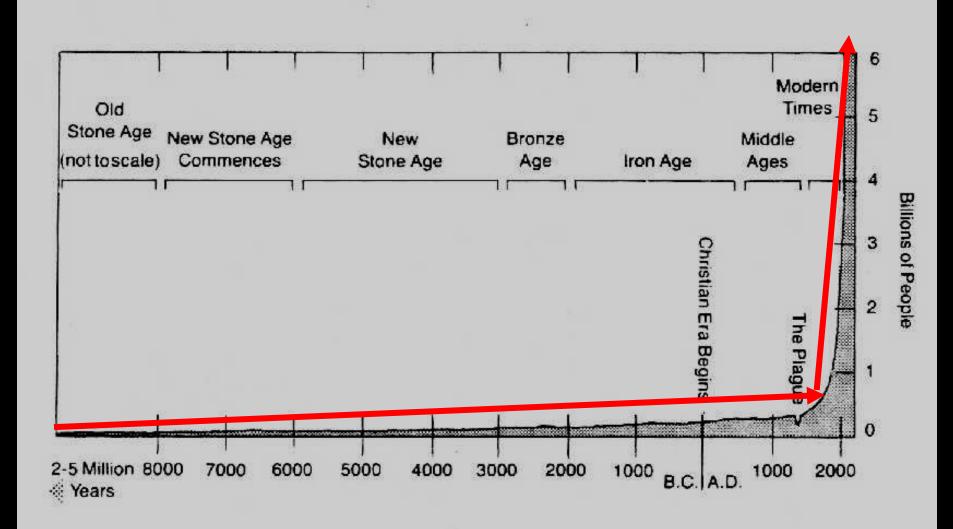


and college days.

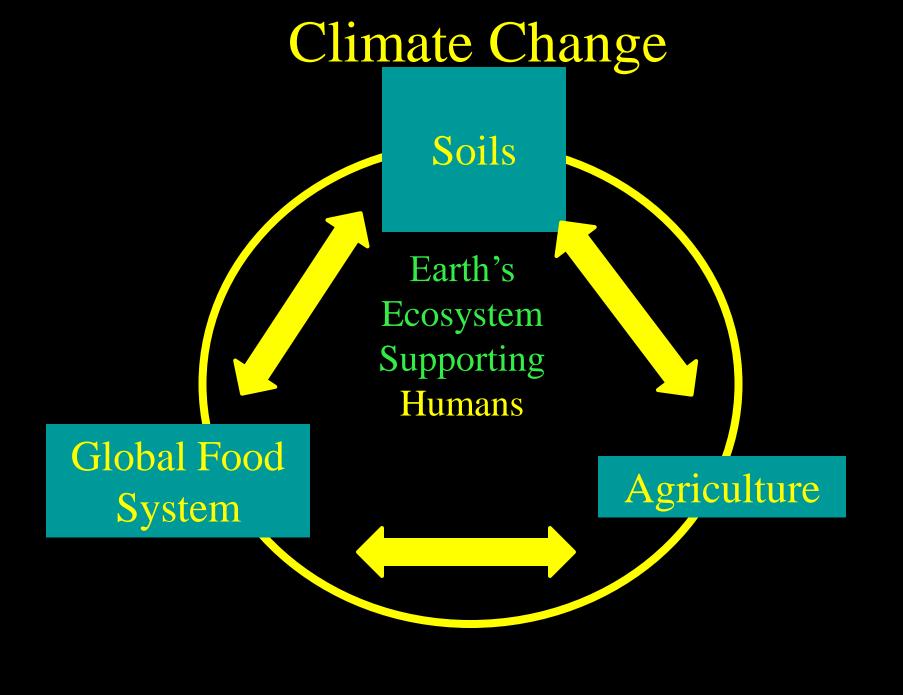


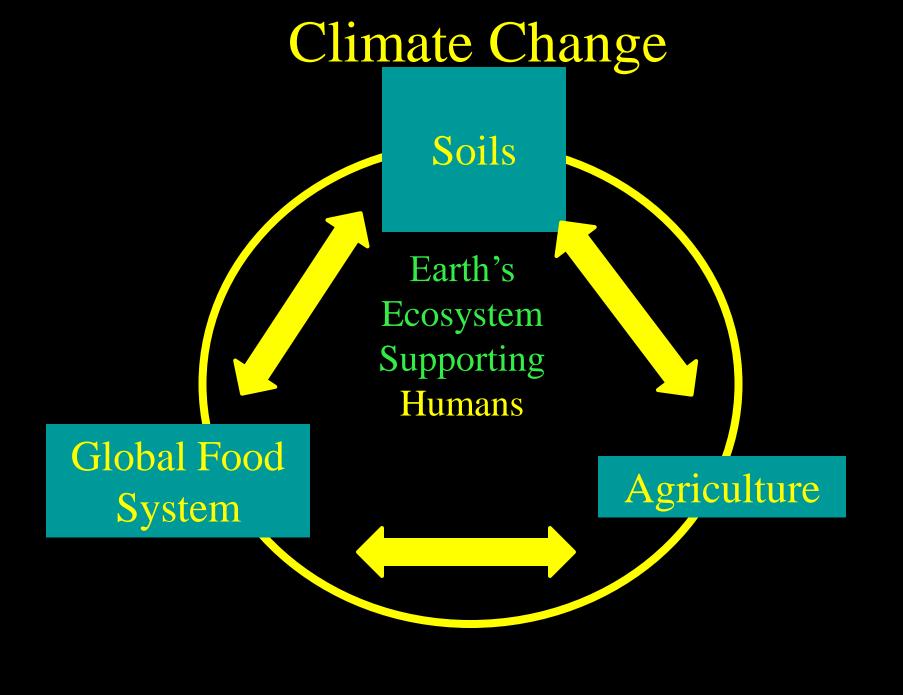


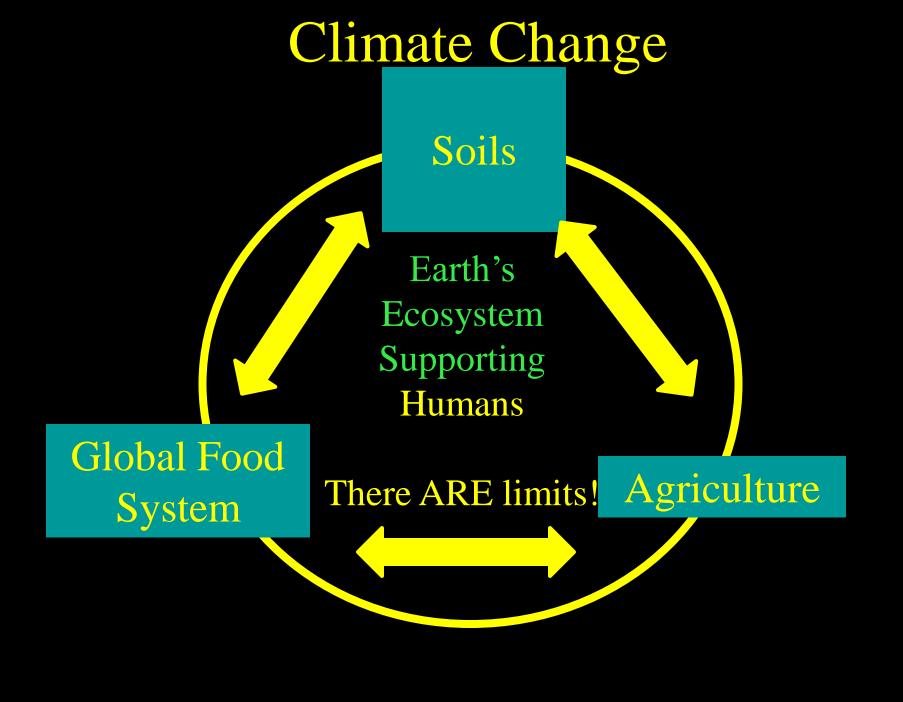


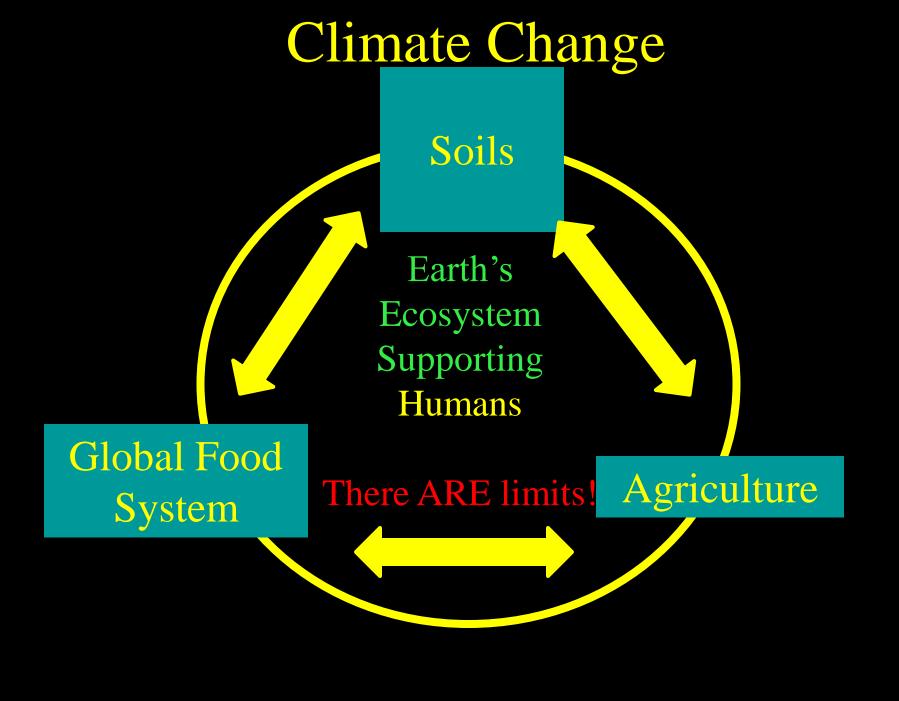


Never before....and never again.



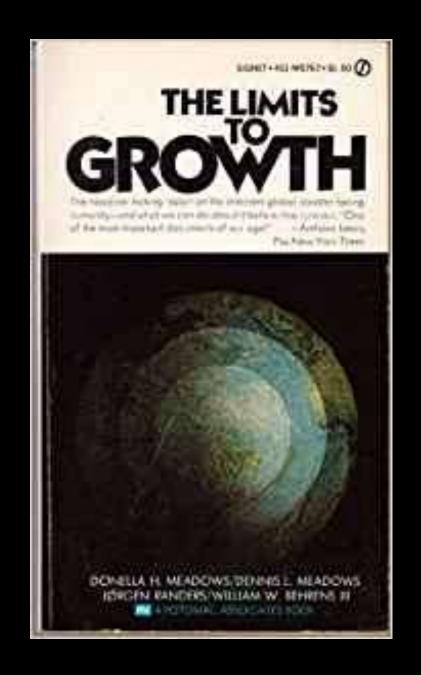


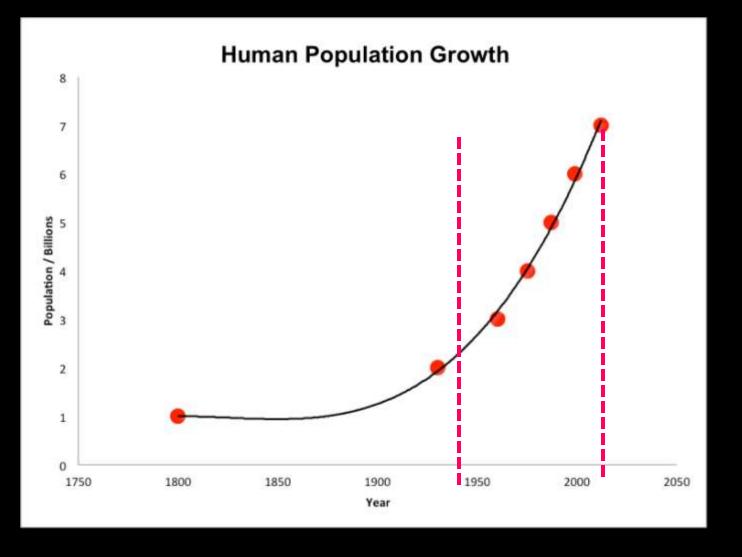


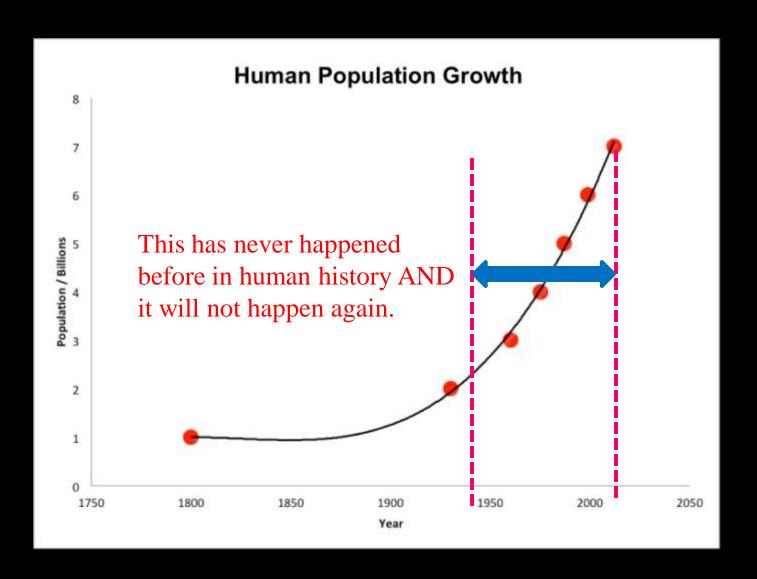


This was clearly demonstrated to the modern world by a group of MIT scientists who issued a Report to the Club of Rome in 1972 entitled,

"The Limits to Growth"







# Never before AND never again...



https://environmentalju sticetv.wordpress.com/ 2012/08/16/people-andplanet-speech-only/



## Norman Borlaug addressed the

The "Food" Problem

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### The "Food" Problem

... but we have come to understand that this is only part of:

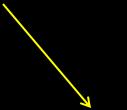
The Food/Population Problem

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### The "Food" Problem

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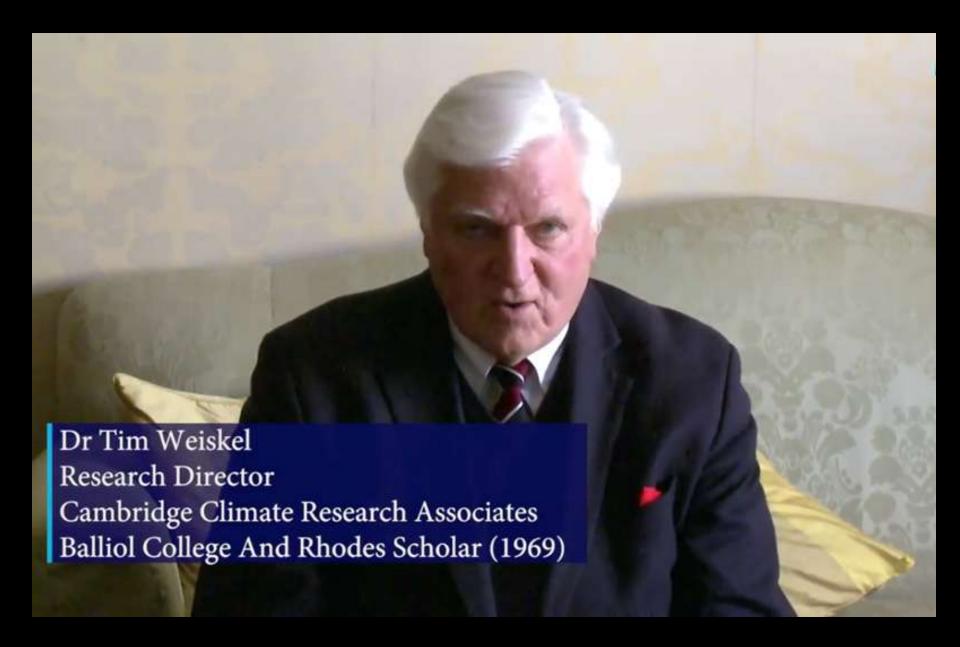
### The Food/Population Problem



... and that, in turn, is only part of:

### The Food/Population/Environment Problem

(This Requires a Paradigm Shift)

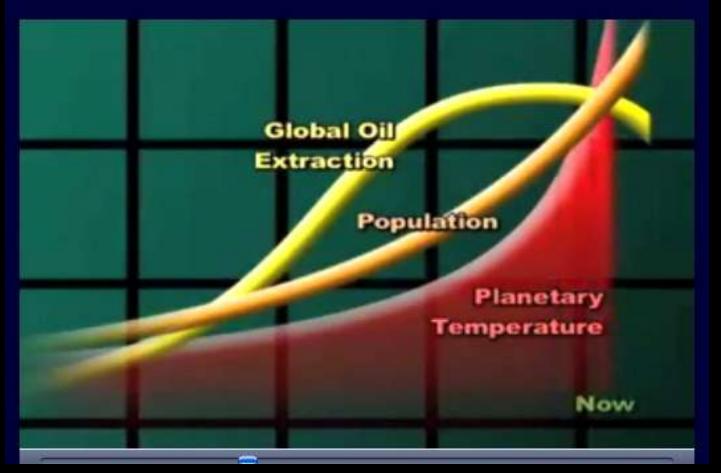




# Norman Borlaug (1914 – 2009)

The Crucial Question Is:

Will the students and followers of Norman Borlaug be able to make the paradigm shift to sustainable agriculture that is now required for our collective human survival?



If they cannot make this needed paradigm shift – if we cannot collectively make that shift – then, we can expect some very rude and costly disruptions in the global food system in the relatively near future.





http://www.youtube.com/watch?v=-hG-c1KY7Y4&feature=PlayList&p=FA50FBC214A6CE87&index=7

http://youtu.be/-hG-c1KY7Y4?t=4m41s

"....people like me should be in jail....



http://www.youtube.com/watch?v=-hGc1KY7Y4&feature=PlayList&p=FA50FBC214A6CE8 7&index=7

# Which of these two gentlemen is closer to understanding the ecology & ethics of sustainability?



Norman Borlaug

# Which of these two gentlemen is closer to understanding the ecology & ethics of sustainability?



Norman Borlaug



Ray Anderson

...blog on.

OR

Tim Weiskel - 46

# Paradigms – or worldviews – have enormous implications for ethics and for public policy...

In the middle of the 20<sup>th</sup> century – largely following the paradigm championed by Norman Borlaug –



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If we are ethically responsible for the foreseeable consequences of our own behavior what does this mean for the ethics of agriculture?

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#### How Biofuels Could Starve the Poor | Foreign Affairs

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By <u>C. Ford Runge</u> and <u>Benjamin Senauer</u> THE ETHANOL BUBBLE

# The New Food Wars: Globalization GMOs and Biofuels

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Mandating Hunger: The Impacts of Global Biofuels Mandates and Targets



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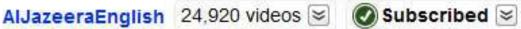


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#### 'Land-grab' for food security - 18 Nov 09





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Speculation on food and (mis)investment in agriculture (land grabbing)





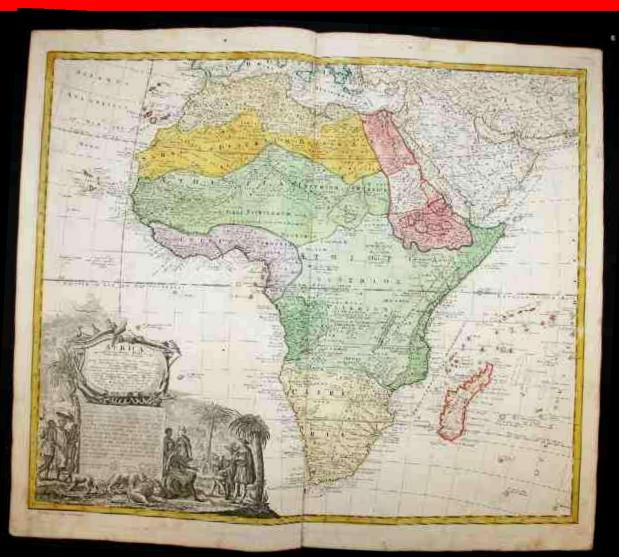


#### Answers to the global food crisis

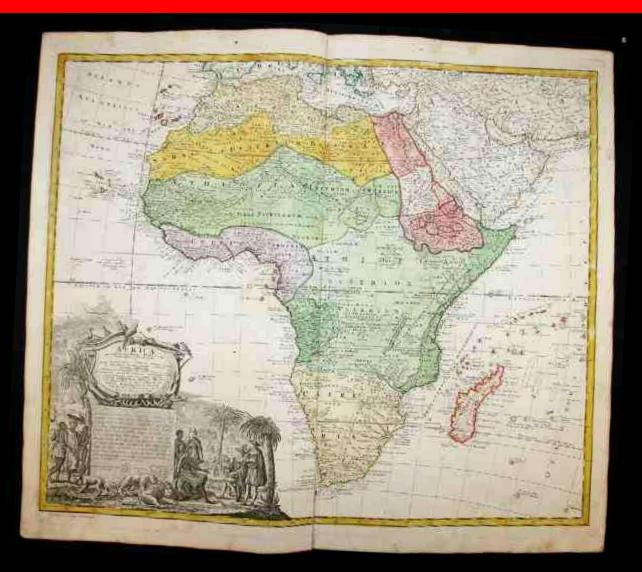
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# Chapters in African Agricultural History: Much Needed New Investment? Or "Neo-Colonial" Land Grab?

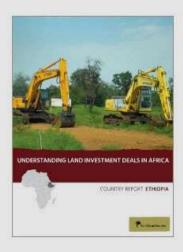


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Are University Endowments Investing in Land Grabs in Africa?

A Conversation featuring Anuradha Mittal, Founder of the Oakland Institute





Board Members of the Oakland Institute will discuss findings of their recent report on how European hedge funds have made large scale investments in African land, resulting in food insecurity, displacement of small farmers, environmental devastation, and further impoverishment and political instability of African nations.

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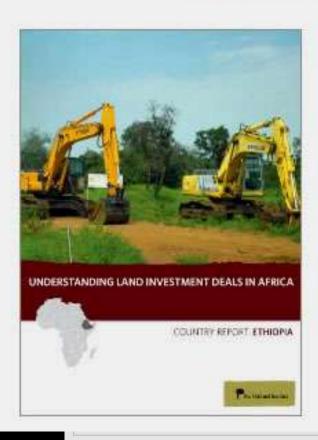




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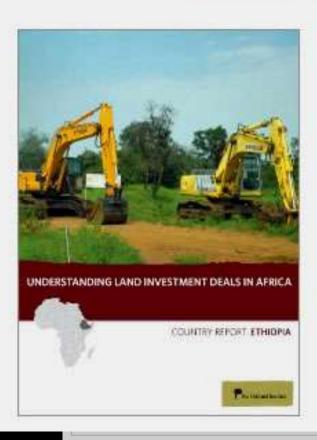




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US universities in Africa 'land grab'

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## US universities in Africa 'land grab'

Institutions including Harvard and Vanderbilt reportedly use hedge funds to buy land in deals that may force farmers out



US universities are reportedly using endowment funds to make deals that may force thousands from their land in Africa. Photograph: Boston Globe via Getty Images

Harvard and other major American universities are working through British hedge funds and European financial speculators to buy or lease vast areas of African farmland in deals, some of which may force many thousands of people off their land, according to a new study.

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You need to pay attention to how your mind and heart are being "furnished."

If you don't someone else will do it for you.

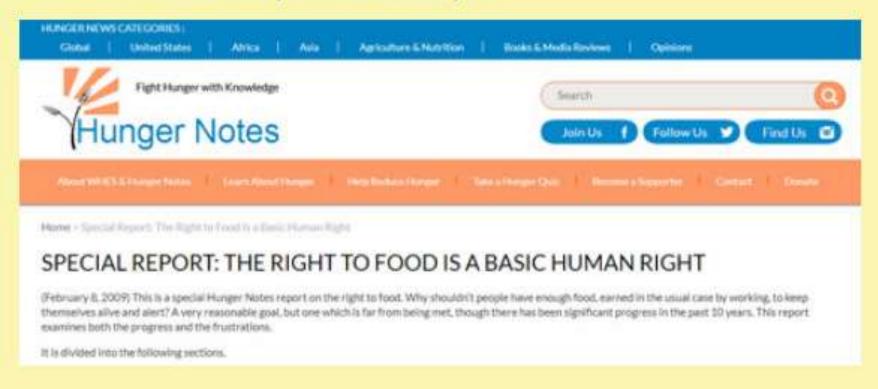
You need to pay attention to how your mind and heart are being "furnished."

If you don't someone else will do it for you.

Higher education is your last best chance....That's what it is for. It can prepare you for the paradigm shifts that you will have to undertake in your own life...

# The Right to Food Is a Basic Human Right – WHES – World Hunger News

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#### CONFLICT: A CAUSE AND EFFECT OF HUNGER BY ELLEN MESSER, MARC J. COHEN, JASHINTA D'COSTA

Conflict: A Cause and Effect of Hunger by Ellen Messer, Marc J. Cohen, Jashinta D'Costa



Sarajevo 1997. This cemetery was once a field where people played. At the start of war in the former Yugoslavia in 1992, the Serbian government attacked Sarajevo, the Bosnian Capital. The 42-month siege and artiflery bombardment killed civilians, separated families and made daily life a matter of sun/ival.

Where you stand matters, because you will find that if you don't stand for something you can fall for anything...

# Bayer Buys Monsanto: Two Deadly Corporations Now Become One

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#### Monsanto: The Company that Owns the World's Food Supply

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# Consider Africa's Agricultural Circumstance.

The Current trend in African Agricultural History:

Are We Witnessing

Much Needed New Investment?

Or "Neo-Colonial"

Land Grab?

### Are There Alternatives?

Beyond The "Green Revolution:"
The Current Paradigm Shift in Global Agricultural
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Fall, 2018 - Prof. E. Messer

Week 10 - (November 13)

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