The problem is that the question is framed as a choice between "feeding cattle" or "feeding humans" and that the "feed" for livestock is equated to food for people, whereas neither should naturally consume grain and the solution to hunger and poverty is to stop producing grain. Grain is at the root of the problem because this "Agribusiness Product" is an energy inefficient converter of non-renewable energy - oil - to carbohydrate; and both oil and grain are non-renewable commodities that are going to "disappear". Both products are entirely "synthetic" and now as the Agribusiness Industry in desperation moves entirely to GMO grain, the world's ecosystems are in a final count down to total exhaustion of soils and toxic contamination of the entire global supply chain that produces both synthetic feed & factory food. The "oil to grain" system will collapse, and with this system collapse comes the human "die-off" - see charts below.
If it is true that the inevitable end-game of this system is the collapse of the human population, then what in the world has been the purpose and objective of this synthetic feed/food system? The answer takes us back to emergence of this system out of our “prehistory” when a new pattern of civilization was born, wherein all the people were brought into a life of subjugation to a ruler and were compelled to grow grain for the treasury, which was a proven pattern for the many to be enslaved and impoverished by an elite few who are addicted to “power over” others. These “hunger games” are essential to the continuing subjugation and oppression that is built on a foundation of confusion and that supports a wall of ignorance and “untruths” built over millennia around a traumatized population, who can find “no way out” of a violent system of exploitation. This virtual wall of programing and conditioning offers no protection and the people live in the deforested, no-man’s land that is outside of the castle walls, to toil for a life-time - as landless serf or in the urban rat-race where the illusion of “the good life” has the majority focused on their status as a consumer.

However, the rising up of a global, educated middle class numbering 100s of millions, has come “just in time” to present an opportunity to change the paradigm, before it reaches its ultimate dead-end. The awakening of people to their broken relationship with the natural world, by enslavement to their task-masters’ goals of material accumulation, is pointing to a way out; as a deeper understanding of sustainable, ecological life support shows a way to restore and reconnect to our natural power and vital relationship to all of life. This emergence from, or out of emergency, of new innovations for “livingry” can restore the abundance and beauty that once was; and that still exists in our ancestral memory. The question is, can we mobilize collective action that is strong enough to throw off the chains and regain “control” of our life, secure the wellbeing of our families and build authentic, resilient communities sustaining happy populations, even in our billions?

The power to overcome oppression will be revived and our vision restored as and when we, the people everywhere, are enabled to grow and eat vital, natural, real food and abandon the synthetic feed and factory food that debilitates and produces disease of body and mind and disrupts our emotions while depressing spirit.

Turning our backs on Agribusiness enslavement requires that you or someone close to you becomes a real food grower. Applying SolaRoof to co-create the POD solution for local, regenerative food/water/energy is the way to empower millions to become the new 21st Century vertical farmer, which we call the POD Preneur. Millions of thriving, profitable, sustainable POD Preneurs will live in and around our communities; each providing POD Fresh Food continuously in all seasons and climate; with little sensitivity to severe weather, the price of oil or distant crisis. Zero synthetic nutrients/energy are required for operations and the technology is low-tech, low-cost and accessible & adaptable as WE work together in a global Creative Commons collaboration.
The coming synthetic feed/food crisis is actual here and we are standing on the brink of a collapsing system. Civilization as we know it will fall off this cliff and there is no way around or out of this terminal condition. We have learned with Global Warming and the End of Oil debates that denial is a natural response, however, a realistic action plan is needed to address the yet little understood food crisis that emerges out of these forecasts, which is the “hunger gap” that predicts a human population collapse in just one lifetime - a die-off of 3 to 4 billion, or about half the human population.

As we are aware the human population is growing at just about the highest rate of all history at a time when there is a good scientific consensus that our numbers will swell to 9 to 11 billion. In direct contradiction to this is equally reliable data that predicts that the oil resource upon which the system of grain production is based will be gone in less than one lifetime. It is the synthetic feed/food Agribusiness, that sustains the global population growth, which literally feeds on a grain harvest that must collapse. There is no “replacement” for the exhaustion of these non-renewable commodities, therefore now is the right time to walk away from these harmful, destructive synthetic products and to focus on the only viable solution, which is growing local, real food for everyone, everywhere.

![World oil production & forecasts per capita from several authors](image)

Above graphic credit to author

@ Richard Nelson, September 2013 - final version - for public circulation
It is difficult to get our heads around the idea that the large majority of what we eat today, all over the world, is synthetic grain and factory food that cannot grow or even survive without the synthetic inputs that are Petrochemical Products. These grains have no viability at all in nature and the end of oil spells the end of the production of these crops. Yet, we are all “programmed” to be consumers of and to be totally dependent on consuming these products to the degree that billions of people will die of hunger if they were to “disappear”.

Those living in the have not countries are, as the poorest who have least access to the scarce commodities of oil or grain (as is visible in this chart below), will be among those who are projected to die-off from scarcity of synthetic "feed/food". These people are at the bottom of this chart, which is also called the “base of the pyramid” of money and commodity wealth. However the security of the few at the apex is an illusion because while the exploitation of people seems to have no end, the exploitation of nature has a breaking point, and as the graphics show, we are at that tipping point of history right now.

Approximately 1 Billion hectares of land must be brought into the synthetic grain production system for adequate supply of carbohydrates for the projected population growth in the near term. This Agribusiness expansion (fueled by oil) would bring about
the devastation of the remaining rain-forests and other “unexploited” regions of the world (mostly in Africa) and would also exhaust the world’s remaining fresh water. However, this is a “dead-end” future because a human die-off follows in the “overshoot and collapse” model, because the underlying resource, oil, is soon gone and will support this scenario for, at the most, one more generation.

I conclude therefore, that not only is the Agribusiness plan doomed to failure, but is willfully intent to follow the synthetic feed & factory food model to terminally unhealthy conclusion. There is an acceptance of an ever increasing percentage of people with declining health, but this is of no consequence to an industry that historically uses poverty and hunger to manipulate people into quiescence to a system of servitude and dependency. The "FOOD GAP" is not about real food and the synthetic feed/food is deadly to both those who have it to consume and those who hunger after it, as do the "have not" population of the world.

![World Oil Extraction and Population (beginning in 2012)](image)

Above graphic credit to author

The Agribusiness end-game would call for the near term conversion of one Billion hectares of remaining healthy ecosystems to grain production will not change the scenario of overshoot and collapse, it just staves off the die-off for a short time (about
10 years) and results in a further population growth (a greater overshoot) - but this scenario also carries with it a high probability of complete and irreversible, global, ecosystems collapse. This direction has a probability of an Extinction Event that humans and most of life on earth may not survive.

Africa has 60% of the World’s Potentially Available Cropland:

![Additional available cropland, 2009](credit to author)

Therefore the experts conclude that there is only this hard choice:

1. The Agribusiness plan gets a green light to accelerate the exploitation of another Billion hectares and a near term die-off of billions of people is averted for a period of 10 to 20 years but ultimately earth as we know it would not likely survive,
2. OR, we do our best to increase productivity with the application of the best available technology but with a gradual decline of the land “in production”, and we cope with a population collapse to a point when, twenty or thirty years from now, all of humanity will be challenged by a near extinction event, as population is cut in half, but life on planet earth, as we know it, will survive

However, I propose a third path to a better future for all:
3. **POD Fresh Food** can avert both of the above horrifying futures - with an answer to the "absolute" failure of the synthetic solutions - therefore the sooner we abandon those experts and their paradigms of exploitation and violence to life, and adopt with all speed the POD solution to grow **abundant, local, fresh food** - then, even in our billions, we may thrive in harmony with all of life.

I am saying that the hunger gap that is predicted due to the disappearance of oil & grain, which we see on the graph below, can be filled by our POD Fresh Food. Even more exciting, the POD solution can be implemented in the have not economies where the threat of die-off is greatest. Synthetic feed and factory food is replaced, and the FOOD GAP is closed with real food that is gown locally and regeneratively by the POD Preneur Network (PODnet).

![Figure 1-2 World Oil and Population in a Two Lifetime Span](image)

Above graphic [credit to author](#)

I suggest that the deliberate dismantling of the traditional rural fabric of "mixed" family farms and the marginal capacity of remaining organic farming/gardening and emerging permaculture practices should make our situation crystal clear: **only when enhanced with 21st Century vertical farming in the all-season POD will there be the opportunity for realistic action to secure food plenty for everyone**. In this scenario we all need to respond with positive receptivity to those with solutions for "livingry" and be pro-active to accelerate diffusion/adoption of local solutions. A first requirement is to
engage people in learning by doing, which is an immersion experience that can release people from fear of scarcity and from the constraints of poverty consciousness that is deeply rooted in everyone due to our educational, cultural and life experiences. The FOOD GAP is emerging and will soon be an undeniable crisis, as the non-renewable commodities of oil & grain are priced out of reach of the billions at “the base of the pyramid”. But that is a tipping point and will trigger a "chain reaction" resulting in the ultimate collapse of the synthetic/factory food supply supply chain that will expose even the most wealthy urban consumers to food insecurity. While nobody can expect to remain isolated from the consequences of End-of-Oil, those who take action to build the alternative POD Fresh Food supply within their community will have a constructive answer.

POD Proof of Concept, Norway 2012

With civilization, as we know it, doomed to crash, we feel in our hearts and know with an inner instinct, that we need to move - to take steps ourselves and with our family and friends to find a place of shelter and safety. How do we act on this urgent prompting of our survival instinct? I propose individual and collective action by those who are able (who are less entrenched in the system). Even a small percentage of people mobilizing can make a big difference for the opportunities of everyone to transition to the new way of life. What emerges as viable for most people, is seen clearly after being pioneered by a few.

The small community of early adopters are the POD Pioneers and as the POD solution spreads widely, then our community of POD Fresh Food enterprise will cluster around hubs for support and skills transfer called POD Works. When these locals act in global unison we birth the PODnet, which is the POD Preneur Network for collective action. The global PODnet level receives “Gift It Forward” contributions from all POD Preneurs and POD Works Locals and these resources are used to plant new POD Works Locals wherever PODnet perceives the greatest need for our solution for real food to fill the FOOD GAP. The coming food crisis will impact some regions of the world more than
others, because the Agribusiness sector failure will hit first and hardest in the regions challenged by dangerous Climate Change that brings severe weather to parts of the world - in these hard pressed communities we plant “seedPOD” projects as community based humanitarian works.

The COOP strategy that is proposed to propagate PODnet as a channel for collective action is a social business model that will virally commercialize the innovative food security paradigm of POD Fresh Food - a breakthrough created on the platform of SolaRoof technology that can lighten the heavy energy and carbon footprint of buildings, glazings and the greenhouse sector. We nurture a POD Private/Public Partnership to attract a consortium of businesses who will join with PODnet in support of a Creative Commons collaboration to save energy with application of the POD as a best-of-kind closed & controlled environment method for regenerative growing of local, fresh food that can replace synthetic and factory food. PODnet will thereby lower associated private as well as societal costs that will only escalate as the commodities, oil & grain, are increasingly costly as the non-renewable resources become exhausted. PODnet will become a driver of an ever increasing prosperity in the communities where POD Preneurs are thriving and POD Works are established and our surpluses can be invested in catalyzing clean/green entrepreneurship of all kinds. PODnet system servers are accessed from POD Preneur sites via cloud-based computing and are massively scalable. Software upgrades can be centrally uploaded and implemented from the regional POD Works’ software development hubs.

The POD solution is presented in the POD Preneur Network Slideshow.

Members of our network, the POD Preneurs, benefit directly by the savings realized, which typically average more than 80% of the annual energy consumption of the historic and now obsolete conventional greenhouse industry. Participation provides the dollar savings directly to the POD Preneur member and substantial crop diversity & yield improvement methods are available for adoption. PODnet is committed to invest 80% of its own revenues to provide matched funding to benefit the whole of our global
movement for POD Fresh Food, including: planting POD Pioneer projects in strategic markets; supporting education & training at POD Works hubs; humanitarian initiatives and development of livingry and technology breakthroughs to benefit all Members.

Fortunately our capacity, with 21st Century global internet networks, for going viral with livingry solutions has peaked just on time to alter course, and through Creative Commons sharing, there can be "real food" security for all families, everywhere. The POD is a 21st Century vertical farm not challenged by constraints with nutrient, water or energy resources - these will always be "in surplus" with the application of SolaRoof technology and our regenerative, ecological growing systems. Propagation of the POD solution is a catalyst for change that builds resilient communities with capacity to not just cope but to thrive in the midst of coming system collapse.

The PODnet strategy is local to global and we are assured of success if global networks of friends and activists will all pitch-in with some participating at a personal level of support as CoMissioners - with their financial and activist support offered to a POD Pioneer and/or to help with formation of a POD Works Local in their own community. Only if POD Fresh Food goes viral and grows as a massively parallel movement, in all continents and bioregions at the same time, is there a chance for the deep level of transformation that may avert the coming global food crisis when synthetic/factory food chains of supply/consumption begin to collapse. There is no doubt of this coming disaster because the depletion of oil will cause a tipping point when the grain production will fail dramatically and never recover - but even before this the Climate Change challenges and/or global conflicts may disrupt the long and fragile chain of supply to the consumer. We must seize the opportunity for plentiful and secure, real food that is grown without fossil fuels and zero GHG emissions by POD Preneurs in communities all over the world. Thank you for adopting our mission; be the change by supporting a POD Pioneer; chose to be a CoMissioner of PODnet now! Close the hunger gap before the food crisis hits home.