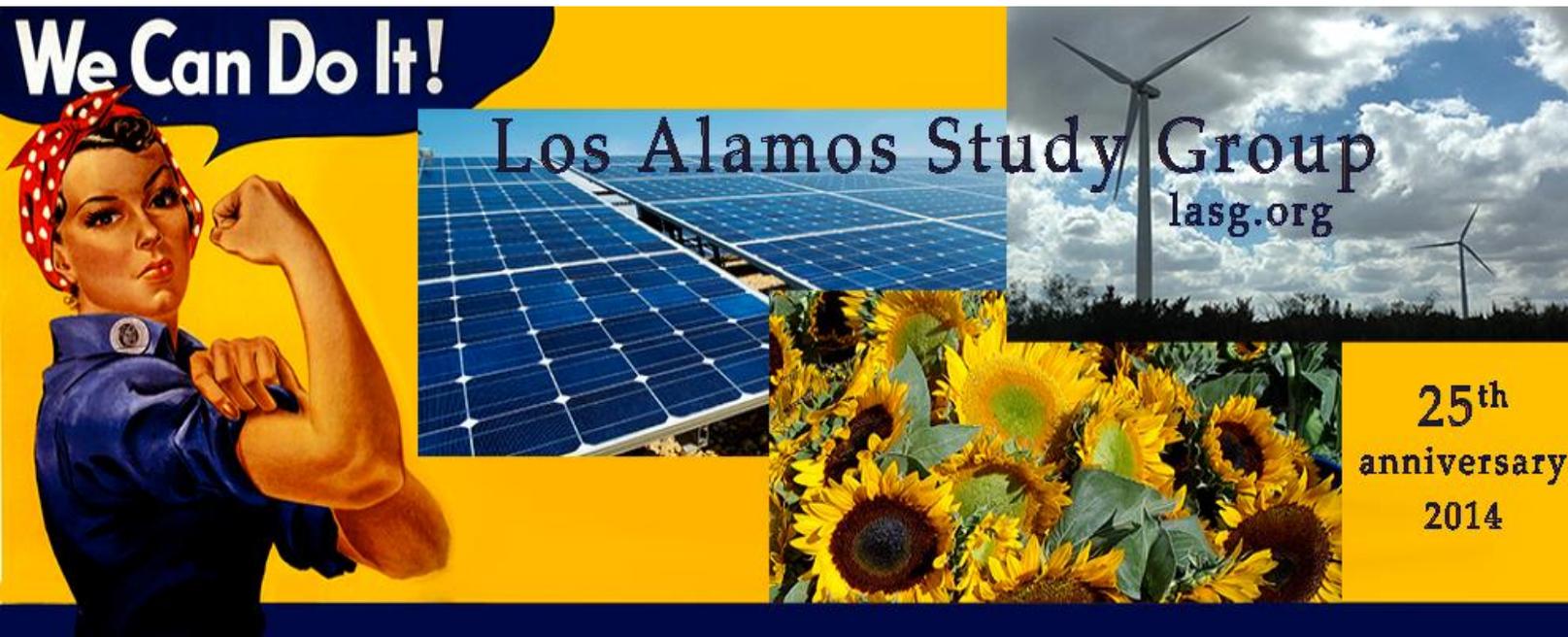


# The Crisis at Hand, the Emergency Mode, and The Need for Full-Scale Mobilization

Greg Mello, Los Alamos Study Group, 6/27/2016

*Now, more than ever, technological, social, and political interdependence urgently calls for an ethic of solidarity..., which encourages peoples to work together for a more secure world, and a future that is increasingly rooted in moral values and responsibility on a global scale.*

Pope Francis, message to Humanitarian Impact of Nuclear Weapons Conference, Vienna, 2014



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Twitter: [@TrishABQ](https://twitter.com/TrishABQ); Blog: [Forget the Rest](http://forgettherest.com)

## Who am I?

- Nonprofit director (IRS: “public charity”); nuclear weapons policy, energy, climate, and economic justice issues
- Married; stepchildren and grandchildren
- Former engineer, environmental activist (since 1971), planner, high school teacher, senior Zen student and retreat leader
- 66 years old
- This is the *what*, not the *who*, which can never be a *private* project

## Who are you?

- Please write down just two characteristics, of purpose of which will be clear shortly:
  - Your age; and
  - If you consider yourself to be a political, business, financial, religious, or public opinion leader, or are a doctor or lawyer or tenured professor or full-time activist (any of these = “yes”)

***What is the purpose of our life in this world? Why are we here? What is the goal of our work and all our efforts? What need does the earth have of us? It is no longer enough, then, simply to state that we should be concerned with future generations. We need to see that what is at stake is our own dignity. Leaving an inhabitable planet to future generations is, first and foremost, up to us. The issue is one which dramatically affects us, for it has to do with the ultimate meaning of our earthly sojourn....our inability to think seriously about future generations is linked to our inability to broaden the scope of our present interests.***

Encyclical of Pope Francis, "*Laudato Si: On Care of Our Common Home*"

# Summary of this talk (I)

1. We have entered an all-encompassing, existential crisis for humanity, nature, and civilization which is already disrupting millions of lives and which will rapidly increase in severity within the coming decade and beyond, with unimaginably horrible consequences. “Less bad is the new good.”
2. We have three basic choices:
  - a) Neurotically deny reality; complacency, distraction, bad faith, despair
  - b) Create some alternative reality (i.e. psychosis)
  - c) Accept reality and undertake emergency responses which,
    - i. If pursued wisely and with others will certainly achieve: a mature, healthy, loving life; transcendence; genuine character
    - ii. Will also achieve minor, or major, objective success for others

# Summary of this talk (II)

3. The *severity* of the crisis requires (and will eventually compel, albeit too late if we wait for that) our emergency response. The essential *unity and breadth* of the crisis requires a *comprehensive* response from us, an *emergency* response, but therefore also provides many points of access, across all of which personal and group *mobilization* is the common denominator and theme. Mutual communication, education, respect, and forgiveness are elements of the required atmosphere.
4. *Vows* are high-leverage, transformative actions. I am begging you to consider pledging your life to protecting civilization and nature, and to renew such vows daily. Personal, political, and social transformation is of a piece. Such revolution changes generally require daily interaction with others similarly engaged.

# Summary of this talk (III)

5. This group is demographically unbalanced. It is old. I want you to think about pledging yourself to recruiting at least one young person to the revolutionary actions you and we will take. This community will fail without them.
6. This group is also unbalanced in that we perennially attract too few people of political and social standing, or of wealth. This is not a problem in itself if it is temporary, but it is a symptom and a warning sign: we remain politically and economically marginal. The year-in, year-out persistence of this marginality means we are not thinking and acting appropriately. Some of our core assumptions and ideas are wrong, or else wrong for the present context.

# Summary of this talk (IV)

7. Our greatest barrier to an effective response is the propaganda, group-think, and thoughtlessly-transmitted assumptions that come from *liberal* and *progressive* organizations and traditions, which are subject to many paralyzing social and economic influences. (Right-wing influences do not affect us greatly.) As a result of these influences, these organizations and individuals offer blinkered analyses and promote ineffectual policies that *also* fail to ignite significant political interest. Their analyses and proposed policies are typically blinkered in that: the severity of the main issue is ignored, connected issues are ignored, current and potential victims are ignored, lower classes are ignored (almost the same thing), animals and plants are ignored, histories of continuous betrayal are ignored, realistic appraisals of political viability are ignored, technological impossibilities are ignored, and so on.

# Summary (V)

8. Aspects of the “emergency mode” and “full-scale mobilization”:
  - a) We must radically and creatively *communicate* and *educate while also acting to end business-as-usual* (BAU) -- in politics, in the entertainment and distraction industries, in the military and nuclear weapon industries, in planning, in tourism, in fact everywhere.
  - b) We must *prevent new fossil fuel (FF) and military investments* by any nonviolent means necessary.
  - c) We must aim for radical degrowth and simplification (see below) and large-scale (local) investments and ownership in renewable energy (RE), energy efficiency (EE), and renewable transportation (RT)
  - d) We must aim to take power and use it. Never beg.
  - e) We must construct cooperative and local government/school/tribal alternatives in RE, EE, and RT. We cannot wait.

# Summary (VI)

8. Aspects of the “emergency mode” and “full-scale mobilization” (cont.)
  - f) We must support one another and vulnerable species. Remember, the FF economy is collapsing, led by oil. Virtually all existing centers of power and propaganda are devoted to perpetuating “our” profitable, FF-based empire over the earth and other people.
  - g) Remember, if the climate is not repaired very quickly (see below), our civilization and most life on earth will end.
  - h) Remember, governments which do not protect people and life from this catastrophe have only the slenderest legitimacy. They will rely on violence in place of a genuine mandate.
  - i) We must re-evaluate distracting, costly personal and political investments. Examples: identity politics, university education, consumerism, entertainment, and various personal enhancements. Ask: “Does this address a fundamental human or ecological need?”

# Summary (VII)

9. The purpose of about 90% of the US military and 96% of nuclear weapons (4% would be 200 warhead min. deterrent) is to uphold US hegemony, corporate profits, and global inequality while capturing an *increasing* “lion’s share” of the world’s resources and wealth, *while also* perpetuating current domestic power and pecuniary relationships. In climate terms, the purpose of the US military and nuclear weapons is to prevent effective climate action. The problem with the US military is mostly not what it *consumes*, but what it *is*, and what it *does*.
10. None of the main presidential candidates have shown that they understand the nature and severity of the climate crisis. There is no road of reform within the present two political parties and the present electoral system at the national or state levels. Revolutionary action and changes are needed.

# Leading the Public into Emergency Mode

A New Strategy for the Climate Movement

Margaret Klein Salamon, PhD (MKS)

Founding Director — The Climate Mobilization

<http://theclimatepsychologist.com/>

<http://www.theclimatemobilization.org/get-involved>

“Imagine there is a fire in your house.

What do you do?

What do you think about?”

The following slides are taken verbatim from Salamon.

	Normal Mode	Emergency Mode
Priorities	Many balanced priorities	Solving the crisis = One top priority
Resources	Distributed across priorities and saved for future.	Huge allocation of resources towards solution
Focus	Distributed across priorities	Laser-like focus
Self-esteem Source	Individual accomplishment	Contributing to the solution

Emergency mode occurs when an individual or group faces an existential threat, *accepts* that there is a life-threatening emergency and *reorients* by:

- Adjusting their hierarchy of priorities so that solving the emergency is the clear top priority
- 2. Deploying a huge amount of resources toward solving the crisis
- 3. Giving little priority to personal gratification and self-esteem enhancement for their own sake, and instead seeking them through engagement with the emergency. People seek to “do their part” to solve the crisis and build their skills to contribute more effectively.

Mihaly Csikszentmihalyi, the psychologist who pioneered the study of flow described it as:

Being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement, and thought follows inevitably from the previous one...your whole being is involved, and you're using your skills to the utmost...The best moments in our lives are not the passive, receptive, relaxing times...The best moments usually occur if a person's body or mind is stretched to its limits in a voluntary effort to accomplish something difficult and worthwhile."

MKS: People must feel basically competent to handle the emergency in order to enter emergency mode. If people don't know what to do during an emergency, they may panic, despair, or resist going into emergency mode at all.

In *Climate Code Red*, David Spratt and Philip Sutton highlighted the differences in normal political mode and emergency mode, drawing heavily from WWII:

### Normal political-paralysis mode

Crises are constrained within business-as-usual mode.

Spin, denial, and 'politics as usual' are employed.

No urgent threat is perceived.

Problem is not yet serious.

Time of response is not important.

The crisis is one of many issues.

A labor market is in place.

### Emergency mode

Society engages productively with crises, but not in panic mode.

The situation is assessed with brutal honesty.

Immediate, or looming, threat to life, health, property, or environment is perceived.

High probability of escalation beyond control if immediate action is not taken.

Speed of response is crucial.

The crisis is of the highest priority.

Emergency project teams are developed, and labor planning is instituted.

# Spratt and Sutton, continued:

Budgetary 'restraint' is shown.

All available /necessary resources are devoted to the emergency and, if necessary, governments borrow heavily.

Community and markets function as usual.

Non-essential functions and consumption may be curtailed or rationed.

A slow rate of change occurs because of systemic inertia.

Rapid transition and scaling up occurs.

Market needs dominate response choices and thinking.

Planning, fostering innovation and research take place.

Targets and goals are determined by political tradeoffs.

Critical targets and goals are not compromised.

There is a culture of compromise.

Failure is not an option.

There is a lack of national leadership, and politics is adversarial and incremental.

Bipartisanship and effective leadership are the norm.

## **Both Emergency Mode and Normal Mode Are *Contagious***

Since climate change does not automatically bring people into emergency mode, the question becomes “How can we effectively trigger emergency mode in others?” The answer is:

1. Going into emergency mode yourself.
2. Communicating that as clearly as possible.
3. Creating a plausible path towards solving the crisis, to which people can contribute.

We must exit normal mode and abandon the gradual policy advocacies and enervated emotional states that accompany it. Instead, we must seek to restore a safe climate at emergency speed. To accomplish this, the climate movement must lead the public into emergency mode. First we must go into emergency mode ourselves, and then communicate about the climate emergency and need for mobilization with clarity, dedication, and escalating assertiveness.

# Emergency Communication

How can we most effectively communicate the climate emergency to the public?...In order to lead people into emergency mode, it is critical that the *emergency threat* is paired with an *emergency solution* (whenever it is available). First and easiest, the climate movement must fully adopt the language of immediate crisis and existential danger. We must talk about climate change as threatening to cause the collapse of civilization, killing billions of people, and millions of species. These horrific outcomes await us during this century, possibly even in the first half of it if things truly slip out of control. This is not a matter of “protecting the planet for future generations” but protecting our own lives and those of the people we care about. We are in danger now and in coming years and decades. The climate crisis is, far and away, our top national security threat, top public health threat, and top threat to the global economy.

**Emergency Solution.** Climate groups must match this emergency rhetoric with an emergency advocacy. Suppose that someone told you, “Help! My house is on fire! Can you please pour a glass of water on it? One glass is all it needs!” You would be confused....We need to “come out” as in emergency mode — climate “alarmists,” as horrified by the crisis, and as ready to make major changes in our life and the economy, for the duration of the emergency.

...We must acknowledge that gradual approaches that prioritize political expediency and the alleged wisdom of the “free market” over the common good are doomed to failure.

...Even if we undertake rapid, all-hands-on-deck mobilization that drives the economy to zero emissions and removes massive amounts of greenhouse gases from the atmosphere, action may need to be taken to quickly cool the planet.

## **Overcome Affect Phobia**

Communicating with this level of honesty will require an emotional shift in the climate movement. Climate organizations are going to have to get more comfortable expressing and inviting uncomfortable emotions.

Climate advocacy organizations should create a place where people can process the reality and implications of the climate crisis together. This kind of supportive, generative atmosphere can only occur when the truth is embraced, and we are able to tolerate the emotions that the truth inspires.

# Let Go of False Narratives (I).

- 2°C or 1.5°C of warming above pre-industrial levels represent “safe limits” to global warming.
- “Our grandchildren” may be in a “climate emergency” sometime in the future if we don't change.
- We still have a sizable global “carbon budget” left to safely burn before things get really out of control.
- The transition to net zero greenhouse gas emissions can be a multi-decade effort. (I.e., we can continue emitting greenhouse gases for decades longer!)
- Extremely gradual emission reduction strategies — such as the Clean Power Plan — are huge steps forward.
- Climate justice and other social justice objectives are compatible with carbon gradualism.
- It's not worth solving the climate crisis and saving billions of lives unless we simultaneously create a utopian society.
- Ending emissions will be “cheap,” “easy” or “painless” and can be accomplished smoothly but slowly via market-based policy instruments alone (such as an emissions trading system or a carbon tax).

## Let Go of False Narratives (II)

- If we only reduce the fossil fuel industry's stranglehold on politicians, the problem will solve itself.
- The climate crisis is only a dirty energy or electricity issue that can be solved without massive ecosystem restoration, the transformation of industrial and animal agriculture, and a revolution in land use and soil management.
- A zero emissions-only strategy (without drawdown and possible cooling) is all that is needed to protect us from climate catastrophe.
- Carbon drawdown approaches and solar radiation management should not be discussed as legitimate options or studied since they will only distract from emissions reduction and societal transformation.
- The broader overshoot, sustainability, and mass extinction emergencies relating to exponential global population and consumption growth are not worth mentioning or factoring into our policies as we respond to the climate crisis since they are overwhelming, not widely accepted by the public, and seem far away.
- We are “fucked” – absolutely nothing we can do will help the situation. Science shows humanity will definitely go extinct by 2030 [or whenever] and all those calling for actions to avert catastrophe are spreading delusional “hopium.”

(End of Salamon)

# Some Dimensions of the Global Crisis ( review, from 11/22/15 talk)

- A widely-misunderstood global crisis in finance, in capitalism overall, and in household economic security is spreading & deepening and will continue to do both. Many indicators suggest much of the world is entering (further) recession.
- Oil and gas production, and of course (for a long time) net exports, are now declining. Prices are expected to remain low barring wider war; capital investments in new oil production have dramatically declined. Depletion continues.
- Fresh water supplies are declining and unstable in many areas. Together with declines in precipitation and soil moisture regional agricultural collapses are occurring and will expand.
- War, often or even mostly begun by the West, and exacerbated by climate and religious factors, has destabilized vast areas. Millions are on the move, soon to be tens of millions, in the first big migrations of the Anthropocene. Fundamental human security is at risk for an increasing fraction of humanity.
- The climate has already been degraded past major tipping points and could pass a “point of no return” in just a very few years if immediate, drastic action isn’t taken.
- Infectious diseases pose serious and growing threats, at both chronic and pandemic levels of infection.
- Most ecosystems, terrestrial and aquatic, are in great danger, as are *most* species.
- Political systems and governance are deeply challenged by all these realities, including in the U.S. and E.U.
- All societies challenged in such fundamental ways are unstable.
- Many societies, including the U.S., have spiraled down into militarism and war, precluding many positive responses. The U.S. as we knew it in past decades is gone. The first step in preventing further collapse is recognizing reality.
- In the U.S., that portion of our cultural legacy stemming from conquest and genocide, domination, high consumption, and inequity bequeaths us intellectual and moral handicaps. We are not “exceptional” in a good way.

## **We must re-frame the issues properly while we can. What's just ahead: (summary, from 11/22/15 talk)**

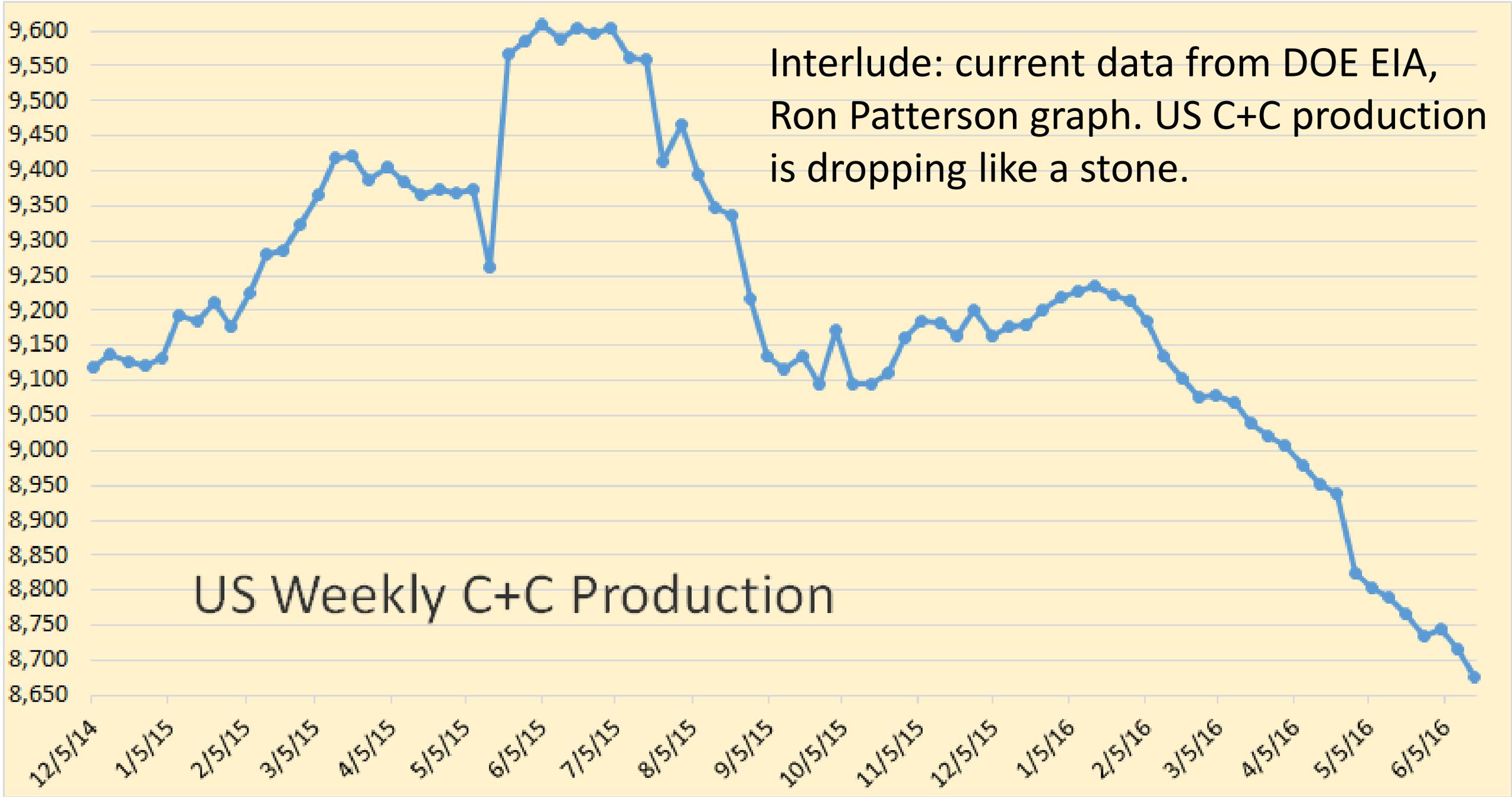
- More and wider war, and terrorism, challenging the foundations of our civilization and society.
- Deepening economic decline, with widening financial crisis that could spin out of control and unravel economies fairly fast.
- The current economic decline could make investment in renewable energy and energy efficiency at the appropriate and necessary scale more difficult than otherwise unless “renewable energy Keynesianism” coupled with new, progressive taxes are embraced.
- The current economic decline is likely to induce peak oil, since new supplies are unaffordable. Post-peak oil is likely to mean peak real GDP also, given their historic tight correlation, making growth-dependent loans difficult to service across society. Interest rates have been kept artificially low, suppressing productivity information.
- Tensions within the EU ramping up rapidly.
- Increasing migrations and deaths *en route*.
- With each passing year the competition for lower-cost hydrocarbons and pipeline routes has intensified and this will continue.
- The risks of major power war are increasing year by year in ways that are not controllable without changes in overall foreign policy we have had since World War II, and in the energy policy we have had since ~1900. The risk of nuclear war is high and rising rapidly. The U.S. now seeks political, military and even nuclear dominance vis-à-vis Russia, which is responding; the India/Pakistan nuclear rivalry continues as their arsenals grow. Etc.

# Some reasons for emergency mode and full mobilization (I)

- Fossil-fuel based civilization is ending and fast, led by:
  - Depletion of petroleum reserves (not *resources*), leading to a peak and subsequent decline in global *crude oil* production (data lacking but may have peaked in 2005; slight decline since), global *crude + condensate* (C&C) (peaked 2015, apparently), and *liquid fuels* overall (probably peaked in 2015 also)
  - Lack of democracy, enfranchisement, and corruption; propaganda and ignorance
  - Extreme concentration of wealth, rising inequality, exploding debt
  - Wars, drought, famine, human displacement on a vast scale
- Real growth is over; real economic capital will decline henceforth until it can be redefined in non-FF terms. Ecological capital is also declining and disasters are increasing. Required investments in RE, EE, and RT collide with these limits and can only occur by redirecting massive expenditures (skills, time, money) from the consumer economy and from parasitical sectors.

# US Weekly C+C Production

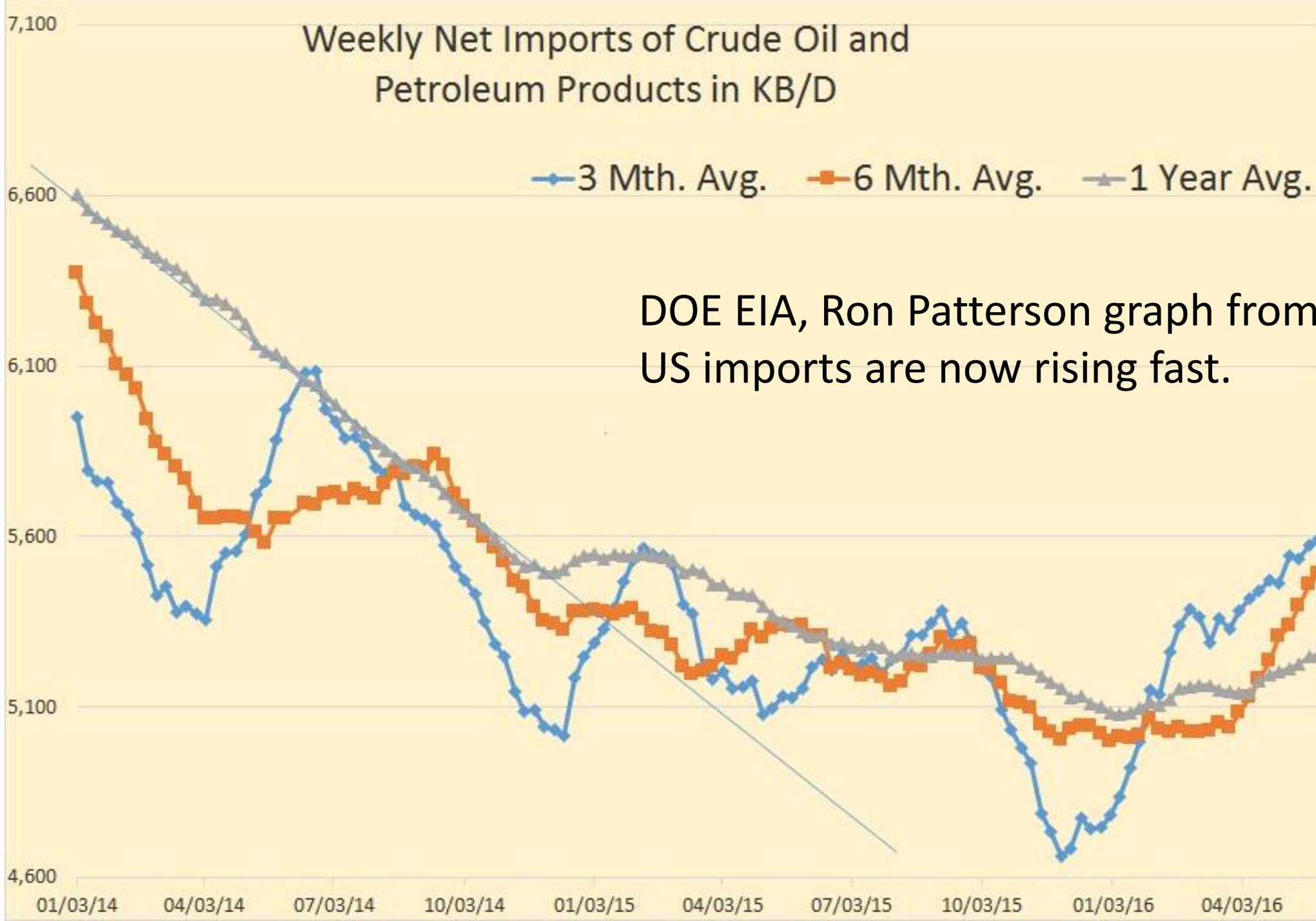
Interlude: current data from DOE EIA, Ron Patterson graph. US C+C production is dropping like a stone.



# Weekly Net Imports of Crude Oil and Petroleum Products in KB/D

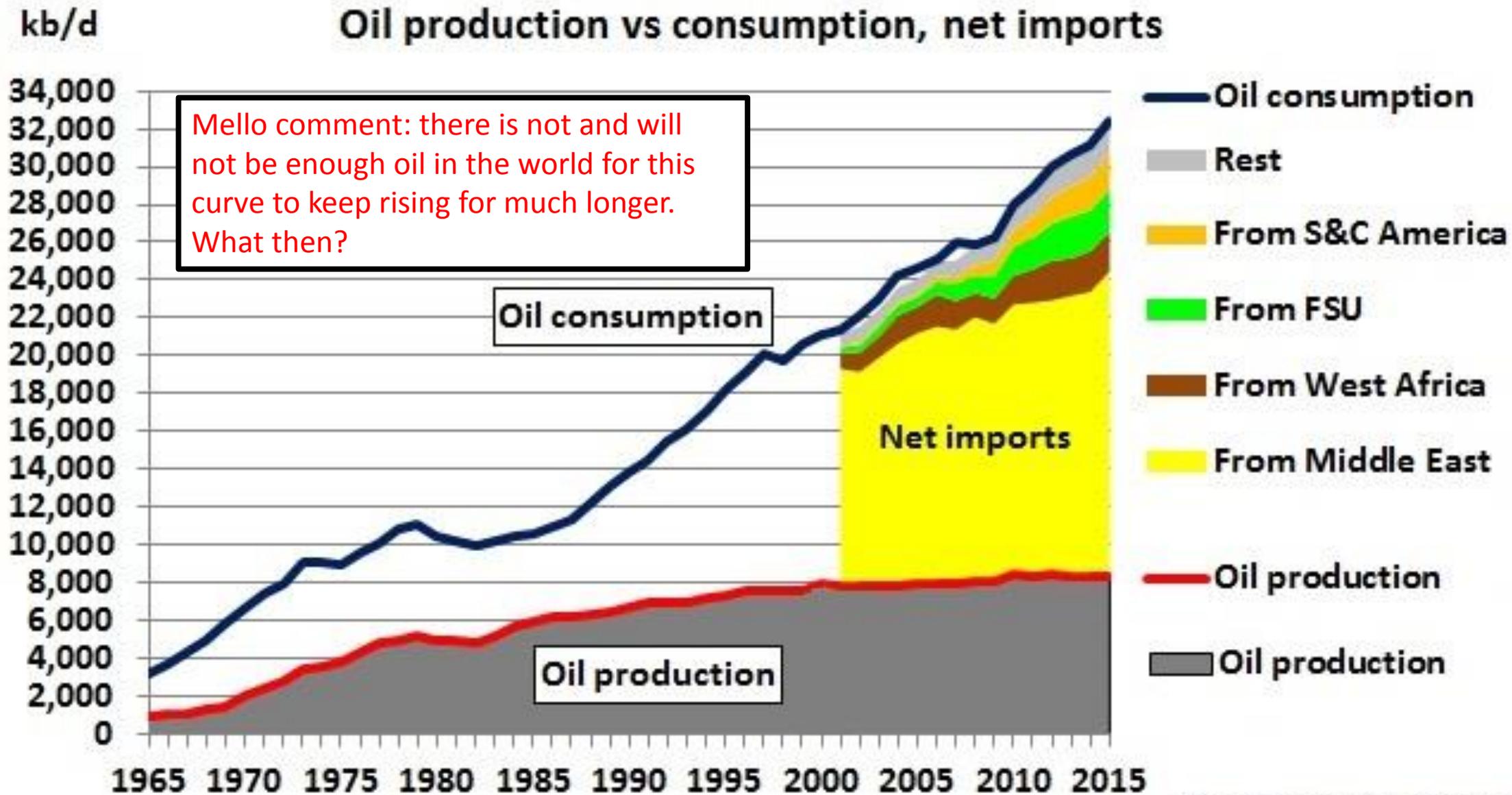
— 3 Mth. Avg. — 6 Mth. Avg. — 1 Year Avg.

DOE EIA, Ron Patterson graph from May.  
US imports are now rising fast.



# Asia Pacific 1965-2015

## Oil production vs consumption, net imports



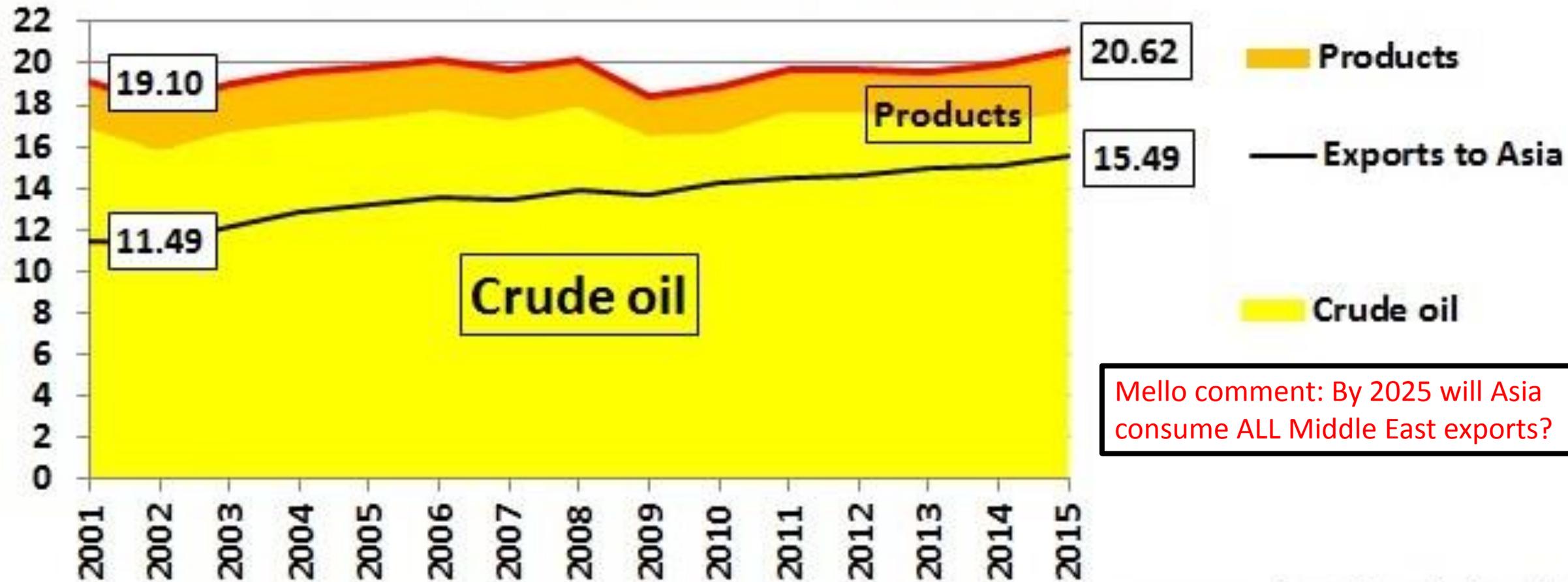
Source: BP Statistical Review June 2016

<http://crudeoilpeak.info>

Crude Oil Peak

# Middle East oil exports - share to Asia

mb/d



Data: BP Statistical Reviews 2002-2016

Mello comment: By 2025 will Asia consume ALL Middle East exports?

**Reasons (II):** Desirable investments in RE, EE, and RT require FFs to produce and install and so produce greenhouse gases (GHGs). *Large, rapid transitions increase net GHG production. **We must decrease needed scale, radically and justly.***

- Example: PV generation. The energy return on energy invested (EROEI) for PV installations is estimated variously, from [Charles Hall's "2.5"](#) (total installation, but from 2008 so probably too low) to Bhandari's "11-12" ([review of 232 studies](#), apparently for panels and inverters only, not installation and other soft costs). Suppose a 25 year life at full efficiency (optimistic) and an EROEI of 10 (probably optimistic, possibly very much so), in the US 1 GW/yr of PV electricity (not *capacity*) would cost 2.5 GW of energy in the year it is manufactured and installed, of which 1.7 – 2.1 GW will be FF energy, depending on the fraction of soft costs. Doubling PV installations every year (the needed rapid build-out) would *increase* GHG emissions every year under these assumptions. Net progress starts when doubling ends. This applies to all aspects of the RE/EE/RT transition.
- **Our choice is only between two very different economies and societies. One is small and green. The other is no society at all.**

## Reasons (III):

- **We have no further GHG allowance to spend.** We are already committed to 2° C warming, given a) the energy imbalance we have; b) the heat hiding in the oceans and c) the decreased insolation we are getting from air pollution. Quite scary positive feedbacks are also under way, e.g. decrease in arctic albedo, loss of soil carbon as CO<sub>2</sub> and CH<sub>4</sub>, shallow maritime CH<sub>4</sub>, bark beetles and forest fires, ocean acidification.
- **Some coastal cities, island nations, and low-lying regions are already committed to flooding** in time frames that may already begin to impinge upon the lifetimes of current infrastructure investments (ck: Miami, Lower Manhattan; low-lying areas of Washington, DC; Venice, Bangladesh). Non-maritime flooding events will also be common. Still other regions are not going to be habitable because drought and heat are destroying their economies. This is not just *possible*; it is *nearly certain*.  
**“Less bad is the new good.”**

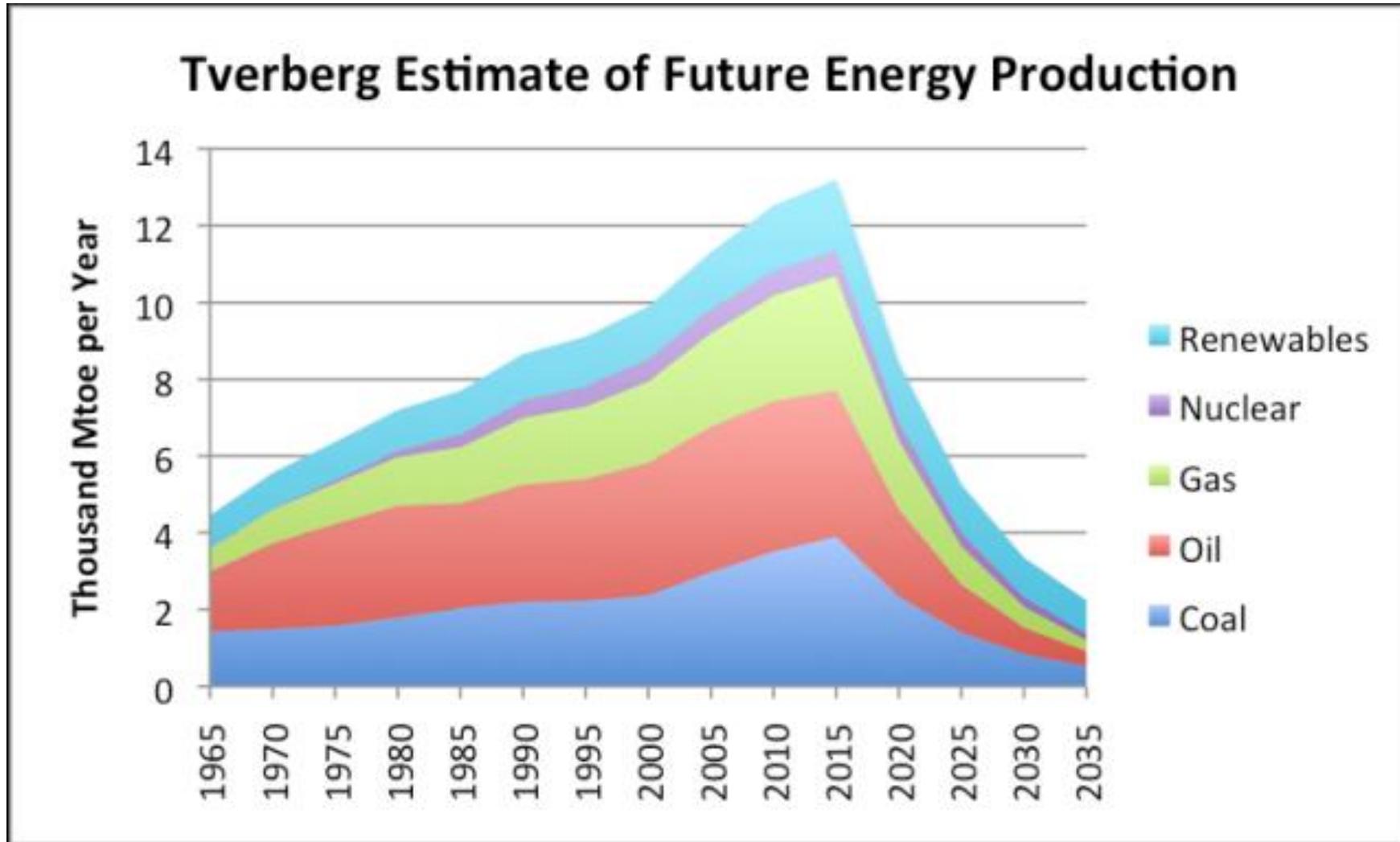
# The Flavor of Solutions under Emergency Mode (examples):

- Transport:
  - Family bicycles and e-bikes (*not* family cars, trucks, and e-cars), for medium-distance urban/suburban journeys. Weight, energy use, cost of e-bike to car 1 to 50 or 100. One PV panel will charge.
  - E-bike taxis (not uncommon in Europe now).
  - Car- and truck-sharing, hauling services
  - Much fewer miles traveled
  - Zoning changes to bring goods to people
  - E-mass transit
  - Electrified railways
  - Horse buggies? (high skills needed)
  - There are and will likely be no FF substitutes for air travel, long-haul trucking, and high-volume shipping, so these must decline.
  - Road maintenance is a major cost



Bike Lane, Washington DC, August 2014. We can live with this paradigm. We can't live without it.

Like Korowicz at FEASTA, Tverberg's view of our civilization's stability is highly pessimistic.



<http://ourfiniteworld.com/2014/09/21/low-oil-prices-sign-of-a-debt-bubble-collapse-leading-to-the-end-of-oil-supply/>

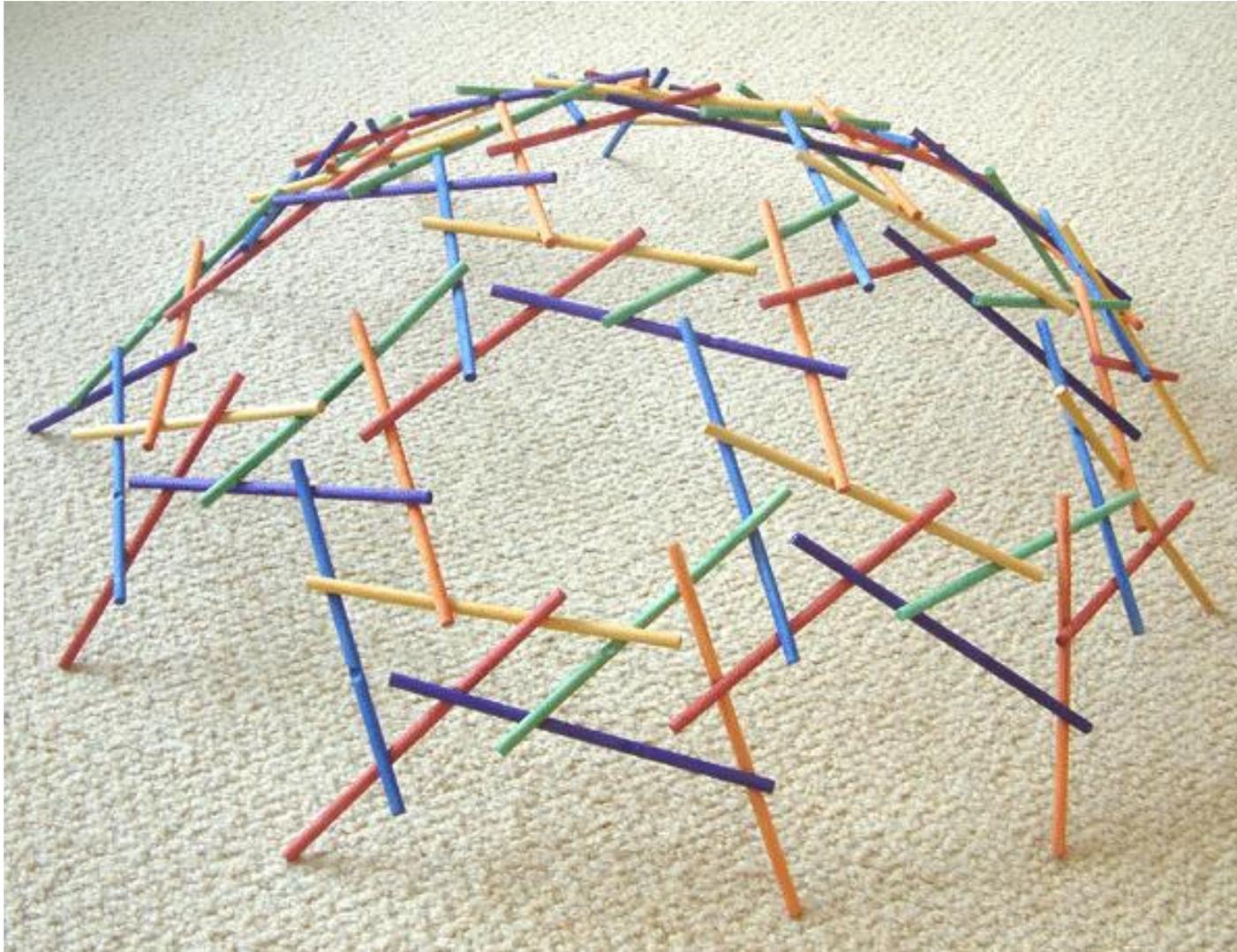
<http://www.feasta.org/2010/03/15/tipping-point-near-term-systemic-implications-of-a-peak-in-global-oil-production-an-outline-review/>

This will evolve as a systemic crisis; as the integrated infrastructure of our civilisation breaks down. It will give rise to a multi-front predicament that will swamp governments' ability to manage. It is likely to lead to widespread disorientation, anxiety, severe welfare risks, and possible social breakdown. The report argues that a managed 'de-growth' is impossible.

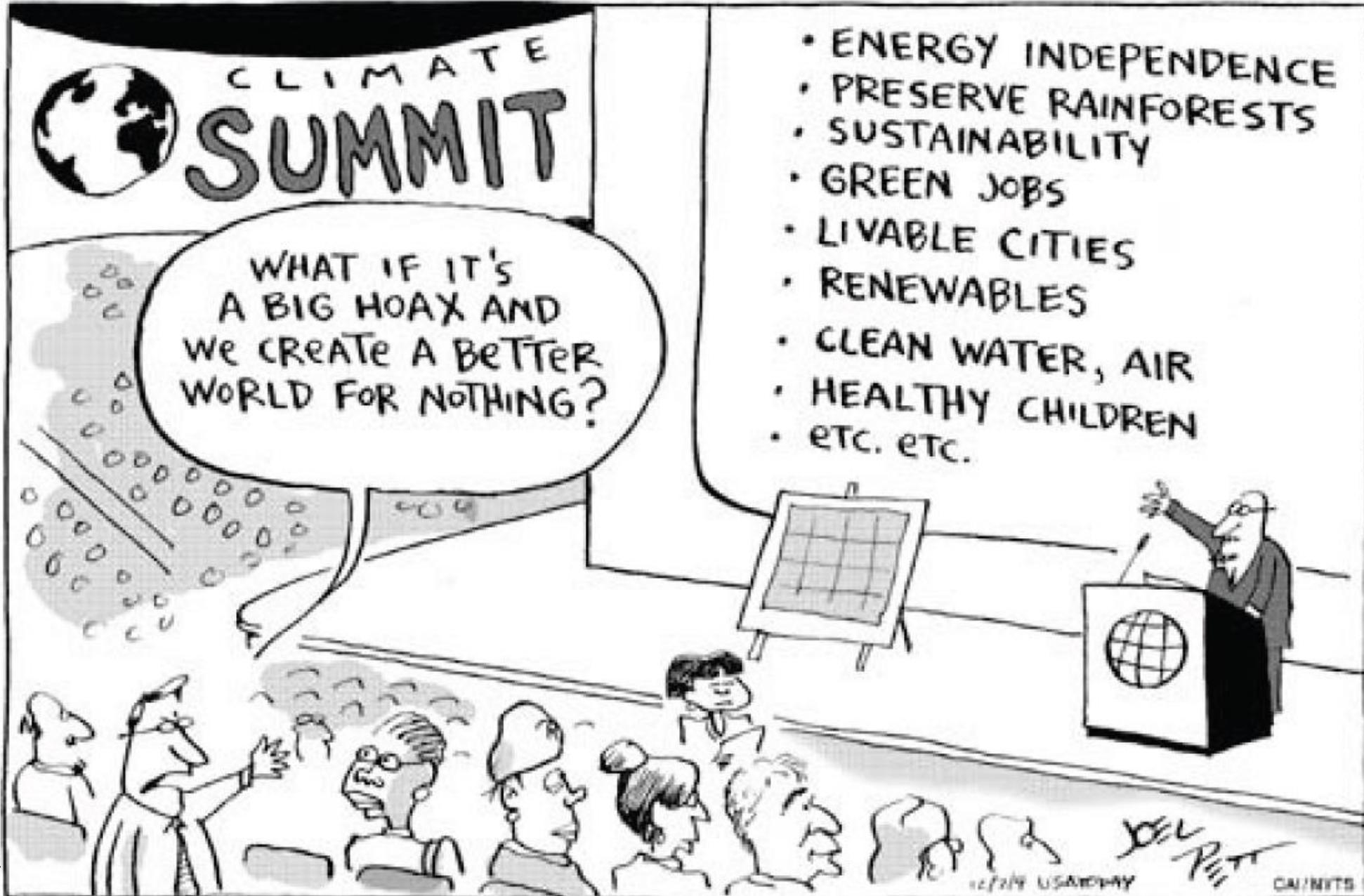
We are at the cusp of rapid and severely disruptive changes. From now on the risk of entering a collapse must be considered significant and rising. The challenge is not about how we introduce energy infrastructure to maintain the viability of the systems we depend upon, rather it is how we deal with the consequences of not having the energy and other resources to maintain those same systems. Appeals towards localism, transition initiatives, organic food and renewable energy production, however laudable and necessary, are totally out of scale to what is approaching.

There is no solution, though there are some paths that are better and wiser than others. This is a societal issue, there is no 'other' to blame, but the responsibility belongs to us all. What we require is rapid emergency planning coupled with a plan for longer-term adaptation.

## Gail Tverberg's metaphor for a highly financialized industrial economy



<http://ourfiniteworld.com/2014/09/21/low-oil-prices-sign-of-a-debt-bubble-collapse-leading-to-the-end-of-oil-supply/>



Cartoonists International: www.rjstyn.com/cartoons