

California Water and Infrastructure Report

Formerly, the “California Drought (and Flood) Update”



For June 21, 2018

by Patrick Ruckert

Published weekly since July, 2014

An archive of all these weekly reports can be found at both links below:

<http://www.californiadroughtupdate.org>

<https://www.facebook.com/CaliforniaDroughtUpdate>

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....the only legitimate source of profit is science, and that profit cannot be measured from the standpoint of money, but rather from the standpoint of increases in physical production which derive from scientific advances.

*The Science of Profit Is The Profit of Science
by Susan Kokinda*

A Note To Readers

Looking at this week's report, and how the same stories appear to go on and on, one may throw up his or her hands and say, as too many Americans are prone to do these days, “Shit, nothing ever changes.”

Perhaps these same people bought into the idea that there are “intractable, unsolvable conflicts in the world, like the North Korea nuclear weapons conflict. But, as President Trump said after his meeting with North Korea President Kim, “*The past does not have to define the future. The current state of affairs cannot endure forever.*”

There just needs to be determination, courage and daring by certain leaders, with the backing of the American people, and then any problem can be solved. Even the apparent “unsolvable” catastrophe that is California today. Especially the question of water and infrastructure. And that one takes thinking from the future-- what is necessary for tomorrow that must be built today. And that tomorrow must be at least 50 years out there.

As California is one of the major states with an “illegal immigrant” problem, the following from a

LaRouche PAC statement of June 21 underlines both the solution and at the same time aims appropriate disgust at those who exploit it, not solve it. For Europe, too, has an “immigrant problem,” created by the 14 years of regime change wars from the Bush and Obama administrations. Hundreds of thousands of refugees have been pouring into Europe from the Middle-east and North Africa. Only by addressing the necessity of real economic development in Africa, the Middle-east, and South and Central America is it possible to even think that these problems are solvable. The link and some excerpts follow:

New Silk Road Proceeds, Europe and U.S. Running Out Of Time, Must Join Now

https://larouchepac.com/20180621/new-silk-road-proceeds-europe-and-us-running-out-time-must-join-now#.Wyuq_4Q_Ogs.facebook

"President Trump yesterday pulled the rug out from under his war-mongering enemies who were using fake pictures and hysterical accounts of illegal immigrant children being "torn from their mother's breasts" on the border; by issuing an order that families should be detained together rather than using separate facilities for the children. The frenzied stories in the media, 24-7, and foul-mouthed rants from Hollywood "celebrities," were aimed at diverting attention from Trump's role in the historic events bringing peace to Korea, and from the exposure of the crimes of the FBI in the "Get Trump" campaign orchestrated by British intelligence.

"Helga Zepp-LaRouche has called for the EU Summit at the end of this month to invite China and leaders of African nations to attend, to change the agenda to the urgent necessity for western nations to join with China in the New Silk Road to rebuild the war-torn nations of Southwest Asia, and to create modern agro-industrial nations across Africa. This, she notes, is the only solution to the refugee crisis which is tearing Europe apart. <https://larouchepac.com/20180617/migrant-crisis-hits-worldwide-zepp-larouche-only-solution-economic-development>

"LaRouchePAC's Kesha Rogers, who is running an independent campaign for Congress in Texas, supported Zepp-LaRouche's call, and added her own call to apply the same simple truth to the immigration problem in the U.S. — end the legalization of drugs, and join with China in the development of Central and South America, because it is the only means to end the flow of people fleeing the terror and poverty in their homelands, but also because it is simply the correct and moral thing to do for the future of humanity.

"America should be doing nothing less."

In This Week's Report

This week, as usual, we begin with, “Drought, the Weather, El Nino and Colorado River Reservoirs.”

And then a little item on the hysterics surrounding what is forecast for at least 30 years out, that the sea level will rise and flood parts of Silicon Valley.

The Oroville Dam update includes a new video and construction progress report. Also, more apologetics from the Department of Water Resources.

The next two sections underline what I wrote above, that the same stories just seem to never go away. First the Bureau of Reclamation announced a minuscule increase of water allocations, as did the Central Valley Project last week. Second, the federal government's plan to raise Shasta dam seems to be moving forward with actual construction contracts to be awarded next year.

Then we have a round-up of news items about infrastructure developments, including the sensible statement by Energy Secretary Perry that, “*You would not want to wager that your liberties and your freedoms in a country ... should be left solely to the free market.*”

Since the tariff conflict with China impacts so much of the economy, and diverts from collaboration of bringing China into building infrastructure in the U.S., most of an article on the topic is included in this report.

The final section includes the quote that is at the top of the report this week from the article, “The Science of Profit Is The Profit of Science,” by Susan Kokinda. A teaser: Why did Henry Ford raise his workers wages to \$5.00 per day?

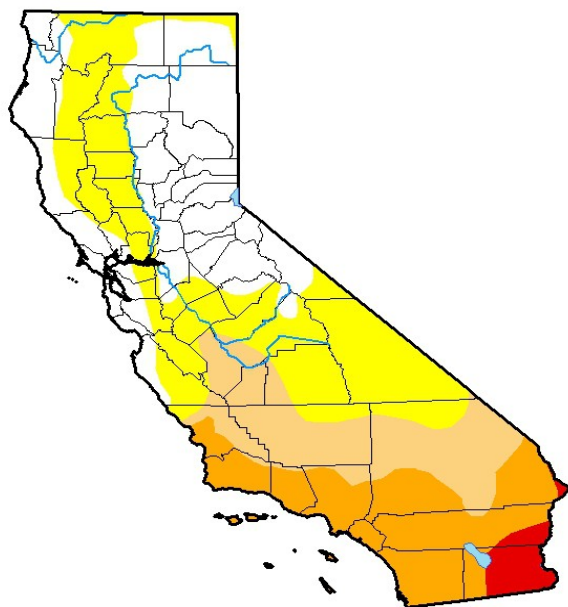
And a reminder. I urge all readers to download and study the LaRouche PAC report issued last month: “Campaign to Win the Future-- A New Paradigm for Mankind: LaRouche’s Four Laws for Economic Recovery.”

<http://media.larouchepac.com/larouche/documents/20180503-LPAC-2018-Campaign-web.pdf>

Drought, the Weather, El Nino and Colorado River Reservoirs

U.S. Drought Monitor

U.S. Drought Monitor California



June 19, 2018

(Released Thursday, Jun. 21, 2018)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|-------|-------|-------|-------|-------|------|
| Current | 30.37 | 69.63 | 37.07 | 20.75 | 2.77 | 0.00 |
| Last Week 06-12-2018 | 30.39 | 69.61 | 37.07 | 20.75 | 2.77 | 0.00 |
| 3 Months Ago 03-20-2018 | 11.08 | 88.92 | 47.68 | 22.31 | 0.43 | 0.00 |
| Start of Calendar Year 01-02-2018 | 55.70 | 44.30 | 12.69 | 0.00 | 0.00 | 0.00 |
| Start of Water Year 09-26-2017 | 77.88 | 22.12 | 8.24 | 0.00 | 0.00 | 0.00 |
| One Year Ago 06-20-2017 | 76.47 | 23.53 | 8.24 | 1.06 | 0.00 | 0.00 |

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Brian Fuchs
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

Week-long heat wave to bake western US

By Faith Eherts, AccuWeather meteorologist

June 19, 2018, 2:57:22 PM EDT

<https://www.accuweather.com/en/weather-news/week-long-heat-wave-to-bake-western-us/70005252>

Another major heat wave is in store for the western United States this week, leading up to perhaps the year's highest temperatures this coming weekend.

Several heat waves have already impacted areas west of the Rockies this month, especially in the Pacific Northwest. In Redding, California, temperatures reached 103 degrees Fahrenheit on June 12, despite an average high temperature of only 89 F.

More recently, temperatures in Portland, Oregon, peaked at 92 F on Sunday —18 degrees above average, and the warmest day so far in 2018.

After several anticipated days of near-100-degree temperatures this week, residents of Redding and the rest of Northern California and Oregon could experience temperatures near 105 F this coming weekend.

With much of the affected area already experiencing abnormally dry to extreme drought conditions, this prolonged period of dry heat will only exacerbate the already high fire threat. Luckily for firefighters, no strong wind events are expected this week.

It's back: El Niño expected later this year, forecasters say

Author: Doyle Rice, USA TODAY

June 14, 2018

<https://www.abc10.com/article/news/nation-now/its-back-el-nino-expected-later-this-year-forecasters-say/465-e9d1128f-8eac-4146-a301-6164dbe3853c>

Climate troublemaker El Niño is forecast for this coming fall and winter, the [Climate Prediction Center](#) announced Thursday. The agency said there's a 65 percent chance it will form by the winter, prompting it to issue an El Niño watch.

In the U.S., a strong El Niño can result in a stormy winter along the West Coast, a wet winter across the South and a warmer-than-average winter in the Pacific Northwest and northern Rocky Mountains.

“Conditions are now favorable for the emergence of El Niño sometime in the next six months,” Michelle L’Heureux, a forecaster with the prediction center, told [Bloomberg News](#). “The watch hinges on that word, ‘favorable.’ We’re just above the threshold that we want to see to issue a watch.”

El Niño is a periodic natural warming of ocean water in the tropical Pacific that impacts weather in the U.S. and around the world. Globally, the climate pattern can bring dry conditions to Indonesia, the Philippines and Australia.

In South America, Brazil can get drought, while Argentina may get more rain, Bloomberg said.

Its effects typically peak between January and March in the U.S.

During an El Niño, water temperatures in the central and eastern tropical Pacific Ocean get a few degrees warmer than average for an extended period of time – typically at least three to five months.

Forecasters say there's a 50 percent chance El Niño will develop during the late summer or early autumn. If it forms by then, it could help suppress the number of hurricanes that form in the Atlantic during that time.

However, El Niños tend to increase hurricane activity in the eastern Pacific Ocean, which can affect Mexico, the U.S. Southwest and Hawaii.

Colorado River Reservoirs Expected To Be Less Than Half Full, Headed To A Historic Low

Monday, June 18, 2018

Luke Runyon/KUNC

<http://www.kpbs.org/news/2018/jun/18/colorado-river-reservoirs-expected-be-less-half-fu/>

Credit: Associated Press



Above: Rafters float down the Colorado River near Moab, Utah., July 25, 2017.

Reservoirs that store water along the Colorado River are projected to be less than half full later this year, potentially marking a historic low mark for the river system that supplies water to seven U.S. states and Mexico.

Forecasters with the [U.S. Bureau of Reclamation](#) expect the river's reservoirs — Lakes Mead and Powell among them — to be at a combined 48 percent of capacity by the end of September. That would be one of the lowest points ever for the combined water storage.

Without significant rainfall this summer and fall and above average snow this upcoming winter the combined reservoir storage could dip to 44 percent of capacity by April 2019 according to Reclamation models.

The previous low point for total system water storage came after the two driest consecutive years in the watershed on April 1, 2014, when the river's reservoirs were at 47 percent of capacity.

“We're in uncharted territory for the system,” said Jeff Kightlinger, general manager of the [Metropolitan Water District of Southern California](#), the water wholesaler for the greater Los Angeles area, which relies on the Colorado River for a portion of its supplies.

“Everything is new, and it is all bleak. None of it is positive,” Kightlinger said.

The root cause of this problem is two-fold: Low snowpack this past winter is causing reservoirs already sapped by 18 years of dry conditions to dip even lower. And the river itself is over-allocated, where more water exists on paper in the form of water rights, than what exists in reality.

More Hysterics

Let me see, according to this study, in 30 years major parts of the Bay Area will be under water due to

rising sea levels. Of course, that assumes nature is both an “unstoppable force,” and that linear projections based on computer simulations actually measure anything real. But, let us allow this study to be an accurate picture of the future. That will mean we only have 30 years to build, where we choose to build, sea walls of just a few feet high. Hysterics really do rule the mind of too many today.

By 2045, Rising Seas Could Flood Thousands of Coastal Bay Area Homes

<https://www.kqed.org/science/1925865/by-2045-rising-seas-could-flood-thousands-of-coastal-bay-area-homes>

Sea-level rise could swamp thousands of homes in the San Francisco Bay Area, most in Silicon Valley and Marin, within 30 years. A new study from the [Union of Concerned Scientists](#), relying on federal government projections for climate change, found that more than 20,000 homes across California would chronically flood by 2045. That is about a mortgage-length’s-time from now.

Oroville Dam Update



First a video from the Department of Water Resources:

Oroville Spillways Phase 2 Update Mid-June 2018



[California DWR](#) Published on Jun 20, 2018

Crews lay roller-compacted concrete (RCC) for the emergency spillway splashpad, completing the northern half of its construction. Meanwhile, workers spray compressed air and water to clean the rock foundation of the upper chute to prepare for structural concrete, while crews continue installing slab anchors in the RCC on the middle chute.

<https://www.youtube.com/watch?v=b2-Cvc0I6K8>

Now a construction report and a report on the continuing investigation of what happened 18 months ago when the spillway disintegrated, and what is being done to fix the culture and procedures that let it occur.

Official confident Oroville Dam spillway project will be complete on time

June 17, 2018

By Jake Abbott

http://www.appeal-democrat.com/news/official-confident-oroville-dam-spillway-project-will-be-complete-on/article_a1677d1e-72ae-11e8-9a11-73316b6baf46.html

With just over four months to go until the self-imposed deadline, construction crews are busy piecing the Lake Oroville main spillway together. An official with the Department of Water Resources said they are confident the November 1 milestone will be met.

“Construction work for the Lake Oroville Spillways Emergency Recovery Project is on schedule,” said Erin Mellon, assistant director of public affairs for DWR.

Blasting was completed earlier this month on the upper chute, which is being completely rebuilt this year. Crews are currently preparing the upper chute for the placement of structural concrete slabs and walls.

On the middle chute, structural rebar panels are being prepared for placement while crews install slab anchors in the roller-compacted concrete. The temporary walls in the section were demolished already, Mellon said. The plan is to place permanent structural concrete slabs and walls later this summer, as well as a drainage system.

On the lower chute, crews have been hydro-blasting the energy dissipaters in preparation of placing a new layer of structural concrete that will be reinforced.

For the emergency spillway, work continues on the roller-compacted concrete splashpad that will connect to the secant pile wall placed earlier this year. The northern half of the splashpad is near completion. Foundation prep in the southern half continues, with RCC placement expected to start in the coming weeks.

“At the end of (last) week, crews will (have completed) phase one of RCC placement on the splashpad,” Mellon said. “The cut off wall, combined with the RCC splashpad and buttress, will armor the emergency spillway from any erosion if used again.”

DWR expands on response to spillway forensic report

By Risa Johnson

June 14, 2018

<https://www.chicoer.com/2018/06/14/dwr-expands-on-response-to-spillway-forensic-report/>

SACRAMENTO — The state Department of Water Resources has beefed up its response to the independent forensic report on what caused the Oroville Dam spillway failure last year.

The report, released on Jan. 5, described how insufficient maintenance and repairs and faulty original design allowed water to seep through the spillway’s cracks and joints. It also blamed “long-term systemic failure” on the part of DWR, regulators and the dam safety industry at large.

The department first submitted a preliminary plan to address findings that insufficient maintenance and repairs contributed to the disaster to the Federal Energy Regulatory Commission, as required by the federal government, on March 13.

In the March letter, DWR said it would hire two executive-level engineers, one who would report straight to the director and another who would report to the chief dam safety engineer.

It also promised that State Water Project dams would be managed up to International Standards Organization standards, beyond what is required by the state, and consider contingencies for Oroville Dam like an additional fully lined spillway, in a comprehensive needs assessment.

On Tuesday, DWR submitted an update on its expanded response to FERC. The letter was signed by Joel Ledesma, deputy director of the State Water Project.

Agriculture Is Still Getting Only 50% of the Water Requested

While headlines in recent weeks focus on Governor Brown's plan of permanent rationing to households, what is generally ignored is the fact that for agriculture in the state the drought has never ended. In fact, for more than 20 years now there have been only two or three years in which a full allocation to water contractors has been met. It is really sick that state officials almost celebrate when they announce that “we are upping the allocation now to 50% of what you need.”

Reclamation increases 2018 Central Valley Project water allocation for South-of-Delta ag contractors to 50%

June 15, 2018 Maven Breaking News

<https://mavensnotebook.com/2018/06/15/this-just-in-reclamation-increases-2018-central-valley-project-water-allocation-for-south-of-delta-ag-contractors-to-50/>

From the Bureau of Reclamation:

The Bureau of Reclamation Friday issued updated allocations for South-of-Delta Central Valley Project contractors for the 2018 contract year.

Based on continued refinement of hydrologic and operational analyses and evolving operational conditions, the allocation for South-of-Delta agricultural water service contractors has increased from 45 percent to 50 percent. The allocation for municipal and industrial contractors South-of-Delta remains at the greater of 75 percent of their historic use or public health and safety needs.



Shasta Dam To Be Raised 18 feet, Maybe

This is a continuing story, covered here a few weeks ago. What is new is that the federal government, defying California political leaders and what they define is sacrosanct state law, is going to go ahead and raise Shasta Dam.

Construction contract to raise height of Shasta Dam expected next year

Damon Arthur

Redding Record Searchlight

June 20, 2018

<https://www.redding.com/story/news/2018/06/20/construction-contract-raise-height-shasta-dam-expected-next-year/718253002/>



Federal officials are moving forward with plans to raise the height of Shasta Dam. (Photo: Damon Arthur/Record Searchlight)

After years of environmental studies, feasibility reports and stalled plans, federal officials are once again moving forward with plans to raise the height of Shasta Dam and intend to award the first construction contract next year.

The U.S. Bureau of Reclamation plans to advertise for bids on a construction contract in September 2019 and award a bid by December 2019, said Todd Plain, a spokesman for the agency.

So far, Congress has only allocated \$20 million for the project, well short of the total \$1.4 billion projected cost. Building the concrete, 18 1/2-foot tall structure on top of the dam is expected to cost \$350 million, Plain said.

With a higher dam, the lake level could rise as much as 20 feet higher when the lake is full, forcing the bureau to move numerous roads, bridges, campgrounds, buildings and resorts.

Construction to raise the height of the dam would begin sometime in late spring or summer 2020, Plain said. Construction would take about five years, according to an environmental impact report done on the project.

While the bureau has its construction timelines set, opposition to the project has also been well established for years and hasn't gone away.

Infrastructure News

Your Liberty Should Not Be Left to the Free Market, Says U.S. Energy Secretary

June 20 (EIRNS)—Talking with reporters on June 15, during the G20 Energy Ministers meeting in Argentina, Energy Secretary Rick Perry stressed that preventing the premature shutdown of coal and nuclear power plants is “not singularly an economic issue.” He cited security risks to the electric grid from terrorist groups and cyber attacks, and reminded reporters that the electric grid also provides the power for U.S. military bases.

That prompted his statement that, “You would not want to wager that your liberties and your freedoms in a country ... should be left solely to the free market.” No criticism of the “free market” and parallel call for federal intervention have been made before by the Secretary. But reality has asserted itself, with the recognition that it is the “free market” which is forcing the shutdown of nuclear plants, and that the Administration is going to have to take the “free market” on, in order to stop it from turning a windmill-infested former industrial and scientific power into an miserable, impoverished country.

Building Nuclear Reactors Could Cost Less, as They Do in Asia

June 20 (EIRNS)—Nuclear power plant building costs could be reduced by 35%, a study published on June 6 by the U.K. Energy Technologies Institute found. An earlier study had examined nuclear plant costs globally since 2010, and found that costs have increased by 20%. But not everywhere. The U.K. study found a huge difference in cost in the U.S. and Europe as compared to Asia, and although the findings are not surprising, the data and the authors’ recommendations are very useful.

The advantages in China, South Korea, and Japan (pre-Fukushima), the report states, include a more productive workforce; “more experience in delivering large, complex construction projects” (which the U.S. and Europe have hardly done in decades); “China benefits from the ability of state-run enterprises to make large decisions quickly once the political direction has been set” (in the U.S., there is no federal direction); “All three countries benefit from cultures where litigious responses are extremely rare” (in the U.S., “environmentalists” have tied up nuclear projects in court, sometimes for a decade).

China, Russia, and the U.A.E. are building plants in clusters at sites, increasing efficiency by sharing infrastructure and bulk purchasing, which was the original plan for U.S. sites. New technology is key, the report states, as more advanced nuclear concepts are more efficient.

The study’s authors point to the cost of financing as a key driver of cost. “The government must play a role in supporting financing process.” It is estimated that a 1% reduction in the cost of capital for a new nuclear project could lead to a 10% reduction in the price of delivered power.

Renewing the water workforce: Improving water infrastructure and creating a pipeline to opportunity

[Joseph Kane](#) and [Adie Tomer](#) June, 2018

https://www.brookings.edu/research/water-workforce/?utm_campaign=Brookings%20Brief&utm_source=hs_email&utm_medium=email&utm_content=63802642

At a time when many Americans are struggling to access economic opportunity and many of the country’s infrastructure assets are at the end of their useful life, infrastructure jobs offer considerable promise. [1] Workers in these jobs earn competitive wages and face lower educational barriers to entry.

[2] They develop extensive knowledge and transferable skills that cut across multiple disciplines. [3] And the coming wave of retirements and other employment shifts in the infrastructure sector means prospective workers can find long-term careers.

The country's water infrastructure is emblematic of this significant opportunity. From pipes and pumps to rivers and lakes, water systems are in urgent need of repair, maintenance, and restoration. At the same time, water workers are in relatively short supply, both for public utilities and a wide range of other employers.

To seize this infrastructure and economic opportunity, the report provides a benchmark of the nation's 1.7 million water workers and lays out a set of actionable strategies—a new water workforce playbook—that local, state, and national leaders should use in future hiring, training, and retention efforts. In the process, the report emphasizes that modernizing the country's water systems and approaches to workforce development offers scalable lessons for other infrastructure sectors.

Trade War or Cooperation

There is no better example of the stupidity of some in the Trump administration than attempting to rebuild the nation by destroying entire sections of the U.S. economy, especially agriculture, by a trade war with China. Yes, Trump makes mistakes, and this is one of them. Eighty percent of U.S. soy bean exports go to China. If that market is lost, there is no other. That is just one example.

My colleague William Jones' commentary was published in *China Watch* a few days ago. Below is the link and a few paragraphs from the article:

A trade war is not the answer

By William Jones | China Watch | Updated: 2018-06-19 15:02



<http://www.chinawatch.cn/a/201806/19/WS5b28aa9ca3106beef440ff51.html>

United States President Donald Trump came off his highly successful meeting with Democratic People's Republic of Korea leader Kim Jong-un, a meeting that may finally resolve the long-standing Korea conflict, only to open up another can of worms that could throw the region – and the world – into chaos, with his imposition of draconian tariffs on Chinese high-tech products. And while the president continued to say that he was determined to do something about the US trade deficit with the rest of the world, the recent discussions between US and Chinese negotiators here in Washington seemed to indicate that an agreement was in the works.

And yet on the morning of June 15, the president announced \$50 billion of tariffs on Chinese goods “that contain industrially significant technologies”, including “goods related to China's Made in China 2025 strategic plan to dominate the emerging high-technology industries that will drive future economic growth for China, but hurt economic growth for the US and many other countries”.

These draconian measures are obviously far more than a simple means of “rebalancing” trade between the two countries. It appears that Trump has heeded the ill-conceived advice of the “China-bashers” in his administration like White House National Trade Council Director Peter Navarro, to

quench China's ambitions in becoming a world-class technological power by slowing down the rapid technological advance that China has experienced during the last few decades. It is directed at the heart of China's economic development policy which is based on the rapid development and implementation of new scientific breakthroughs. This has allowed China to make the tremendous progress it has made, and to liberate millions of Chinese from poverty and disease. But isn't that what government is all about – improving the conditions of life of its people through this type of science-driven economic development? This used to be the norm in the US as well but decades of “deregulation” and a growing bias toward government regulation and stimulation of economic activity has abandoned policy-making to the vagaries of “the market.” And this laissez-faire bias has left much of our economy, and our infrastructure, in shambles.

The “narrative” that is used to justify these new tariffs is that China has in some way “stolen” the “secrets” of US technology and thus must pay us back. What a ridiculous idea! But progress made by other nations cannot be stopped by such tawdry measures as draconian tariffs particularly if a country is prepared to make an all-out effort to continue to move forward.

China has already made a commitment to open up its economy even more to foreign investment. True, China does have an “industrial policy”. The nation has a clear direction where it wants to go. The real problem is, the US does not. In fact, we really haven't had a real industrial policy since President John F. Kennedy launched the space program. ... And why hasn't the Trump administration established some sort of infrastructure fund in order to put our roads, highways, and railroads, back in order for the safety and well-being of those who have to travel on them, as the president has promised?

The truth of the matter is that the government-directed industrial policy that China has implemented has proven itself more successful than the laissez-faire neoliberal model that has been promoted by the US over the last two decades. This policy, known as the “Washington consensus” has been devastating for the developing world which is still immersed in poverty. And China has now become a model of real development for them.

William Jones is Washington bureau chief for Executive Intelligence Review. The author contributed this article to China watch exclusively.

What Is Profit? The Most Profound Question of Economics

Below is most of the article by my colleague Susan Kodinda on how profit in an economy cannot be measured by money, but only by increases in physical production which derive from scientific progress.

You will be surprised that Henry Ford did not raise his workers pay to \$5 per day so those workers could just buy the cars they were producing. Just do the math-- that does not work out since there were only 13,000 workers building the cars and even if every one of them bought a car the investment in the plant and the expenses of running it could never be covered by such a minuscule level of sales. No, it was to increase the productivity of the entire company, and the the entire U.S. economy that drove Ford's decision.

The Science of Profit Is The Profit of Science

by Susan Kodinda

Executive Intelligence Review

May 4, 2018

http://larouchepub.com/eiw/private/2018/2018_10-19/2018-18/pdf/12-15_4518.pdf

....the only legitimate source of profit is science, and that profit cannot be measured from the standpoint of money, but rather from the standpoint of increases in physical production which derive from scientific advances.

The contrast between monetary profit and true scientific profit reflects the challenge of presenting Lyndon LaRouche's "Four New Laws to Save the USA Now," issued in 2014.

Excerpting those introductory sections which LaRouche himself highlighted, we have the injunction for the federal government to— institute four specific, cardinal measures: measures which must be fully consistent with the specific intent of the original U.S. Federal Constitution, as had been specified by U.S. Treasury Secretary Alexander Hamilton while he remained in office:

- 1) Immediate re-enactment of the Glass-Steagall law instituted by U.S. President Franklin D. Roosevelt, without modification, as to principle of action.*
- 2) A return to a system of top-down, and thoroughly defined, National Banking. . . .*
- 3) The purpose of the use of a Federal Credit-system, is to generate high-productivity trends in improvements of employment, with the accompanying intention, to increase the physical-economic productivity, and the standard of living of the persons and households of the United States. . .*
- 4) Adopt a Fusion-Driver "Crash Program." The essential distinction of man from all lower forms of life, hence, in practice, is that it presents the means for the perfection of the specifically affirmative aims and needs of human individual and social life.*

The Fourth Law: A New Language

If one pays attention to LaRouche's Fourth Law, "Adopt a Fusion-Driver 'Crash Program'," one should be stunned by the next sentence: "The essential distinction of man from all lower forms of life, hence, in practice, is that it presents the means for the perfection of the specifically affirmative aims and needs of human individual and social life." And later, "The healthy human culture . . . represents a society which is increasing the powers of its productive abilities for progress, to an ever higher level of per-capita existence."

LaRouche begins to introduce the new language, needed for discussing an economics based on the essential distinction of man from all lower forms of life, in the concluding "stretto" section of the Four Laws article. He says,

We call it "chemistry." Mankind's progress, as measured rather simply as a species, is expressed typically in the rising power of the principle of human life, over the abilities of animal life generally, and relatively absolute superiority over the powers of non-living processes to achieve within mankind's willful intervention to that intended effect. Progress exists so only under a continuing, progressive increase in the productive and related powers of the human species.

It could also be said: Profit exists so only under continuing, progressive increase in the productive and related powers of the human species. While this concept may be foreign to policy makers, business leaders, and citizens today, it was the essence of Hamilton's great economic writings, and it shaped the mental life of the earlier American System industrialists and manufacturers. Two ideas in Hamilton's writings have always stood out for me. The first is his assertion in his Report on the Subject of Manufactures, that the wealth of a nation is not its money, or its land, or its raw materials, or its gold, but rather the productive powers of labor.

The second, is his organization of the mission of the National Bank. While Hamilton knew that those

who invested in the bank would need some kind of return on their investment, and he established revenue streams from taxes and tariffs to ensure those returns, he made clear that the mission of the Bank was not to make a monetary profit. The mission of the Bank was to benefit the nation as a whole. The Bank's investment decisions were to be governed by that, not by the individual profit generated from an individual investment. Yet those properly made decisions would ultimately result in profitability throughout the economy. (Look at China's Public Policy Banks today as an example.)

That was how Henry Ford thought when, in 1914, he decided to pay his workers \$5 a day and reduce the workday to 8 hours. The reason commonly put forward—that this meant that his workers would then be able to buy his cars—doesn't add up. Ford had about 13,000 people employed at his Highland Park plant, and even if every one of them bought a car, he would not recoup his outlay. It was about the productivity of labor, not only of his own workforce, but of the nation's. Before the wage increase, Ford had to hire 57,000 men per year to keep 13,000 of them employed. The loss of productivity caused by that turnover was enormous. More significantly, that wage increase forced other manufacturers to improve the conditions of their workers, ultimately lifting up living standards nationally. Now, there was a market for his cars!



Henry Ford's Highland Park plant was the great industrial wonders of the age, capable of turning out one Model T automobile per minute.

*Similarly, the common idea that the purpose of the assembly line is to speed up the production process is embedded in the let's-cut-costs-to-make-a-profit world. As described in the biography of William Knudsen (Norman Beasley, *Knudsen: A Biography*, Papamoa Press, 2017), the production genius who went from the Ford Motor Company to the presidency of General Motors, and then to the leadership of Franklin Roosevelt's Office of Production Management at the War Production Board: "Knudsen and Ford each saw the automobile as a product of mechanical skill and not a product of mass production. They saw the conveyor as a carrier of material—nothing else. . . . The carrier produces nothing. It is a beast of burden leaving the mechanic free to do the work." The worker should not be a beast of burden; he should be freed to use his skills and his mind.*

This gets closer to the heart of the matter.