W A T E R I N T A K E

2/2016

März – April -Mai

16.05.2016

… ISIS is not an existential threat to the United States. Climate change is a potential existential threat to the entire world if we don't do something about it …

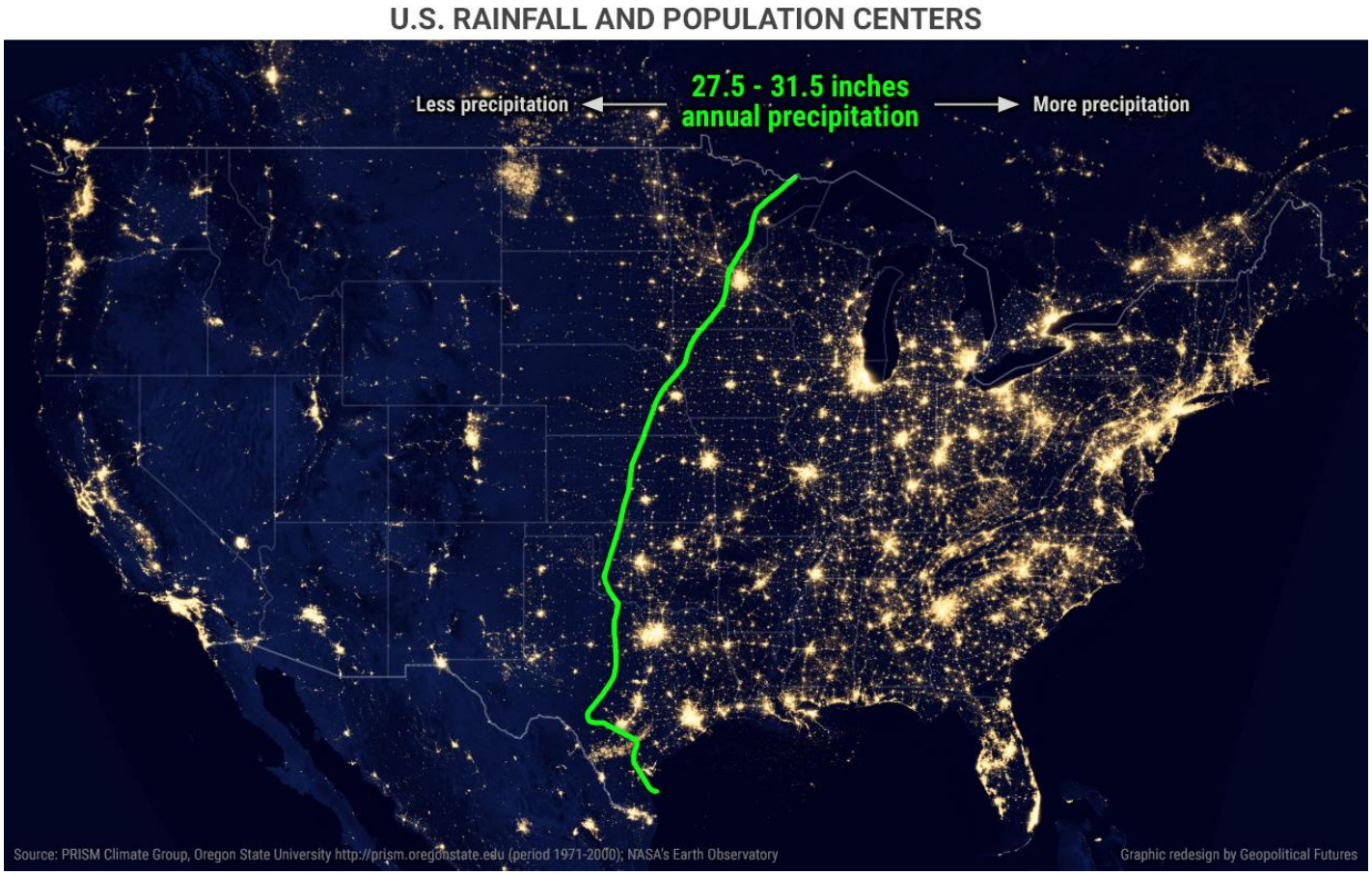
The Obama Doctrine, TheAtlantic, April 2016 Issue
http://www.theatlantic.com/magazine/archive/2016/04/the-obama-doctrine/471525/

UN and World Bank announce members of joint high-level panel on water

22.04.2016 … appointment of 10 Heads of State and Government, as well as two Special Advisors … co-chaired by the Presidents of Mauritius and Mexico …

-Ameenah Gurib, President of Mauritius (Co-Chair)
-Enrique Peña Nieto, President of Mexico (Co-Chair)
-Malcolm Turnbull, Prime Minister of Australia
-Sheikh Hasina, Prime Minister of Bangladesh
-János Áder, President of Hungary
-Abdullah Ensour, Prime Minister of Jordan
-Mark Rutte, Prime Minister of the Netherlands
-Jacob Zuma, President of South Africa
-Macky Sall, President of Senegal
-Emomali Rahmon, President of Tajikistan
-Han Seung-soo, Former Prime Minister of the Republic of Korea (Special Advisor)
-Manuel Pulgar-Vidal, Minister of State for the Environment of Peru (Special Advisor)
http://www.worldbank.org/en/news/press-release/2016/04/21/un-secretary-general-and-world-bank-group-president-appoint-the-members-of-the-high-level-panel-on-water

Geopolitical Futures - Weekly Graphic:



7. Mai 2016 … United States at night … The line we've drawn marks the point where the lights dim. And it also marks the line where annual rainfall tapers off. There is more rain to the east of the line, less rain to the west. The line marking the edge of the heavily lit area is also the point where rain declines below what is needed for high density populations. The two lines converge in the same spot and define a vital dimension of American geopolitics: the difference between the East and the West … it isn't only the limited rainfall that creates the darkness in the western night. But it is one of the major contributing factors … All of this would change if there were more water. And to be precise, the problem isn't a lack of water – as the ocean and rivers provide plenty – but the type of water and its location. Ocean water needs to be desalinized before it can be used. And the Mississippi River, for example, has massive amounts of water, but most of it goes into the Gulf of Mexico. Therefore, there is plenty of water, but it is either the wrong kind or in the wrong place. The issue is the amount of energy needed to desalinize ocean water and move water through pipelines. It can be done, but the cost is prohibitive … There are many divisions in the United States, but this is the fundamental division, more important even than north and south …
https://geopoliticalfutures.com/

WASSERSTANDSMELDUNGEN

Not a drop to waste: how expanding Australian cities can tackle water shortages
16 May 2016 … a major focus of the event … was the challenge of urban population expansion, which in Australia represented 83% of all population growth over 2014-15 … This population rise in Australia is reflective of world trends, with the UN world urbanization prospects report observing the 2014 global urban population of 3.9 billion is on track to balloon out to 6.4 billion by 2050, during which time rural populations are projected to decline. With rising urban populations and climate change putting pressure on water supplies, the conference heard from speakers with ideas about ways to improve the efficiency of water systems … Traditionally, everyone thinks of the water industry as low tech, plumbers and that sort of thing … But it's not about the technologies, not about smart sensors, not about clouds – all the ingredients exist already … It's about the people: management, staff, public, politicians. Sometimes they need to make a change, accept that in the past things weren't that good and we need to make it better and, to do that, you need data …
http://www.theguardian.com/sustainable-business/2016/may/16/not-a-drop-to-waste-how-expanding-australian-cities-can-tackle-water-shortages

TATORT „Der hundertste Affe" – Fragen und Antworten zur Trinkwasser-Sicherheit
13.05.16 Die Story des Bremer ARD-TATORTs „Der hundertste Affe" … zielt auf die Trinkwasserversorgung. Bremen ist im Ausnahmezustand, die Kommissare Inga Larsen und Siedefreund stehen unter Hochdruck: Eine Gruppe Ökoterroristen droht, die Stadt zu terrorisieren. Sie drohen, das Trinkwasser mit genau jenem Pestizid zu versetzen, mit dem ein Biotech-Konzern in Afrika Millionen macht. Viele Fernsehzuschauer werden sich vermutlich fragen, wo die Fiktion aufhört und die Realität anfängt. Die nachfolgenden Fragen und Antworten sollen erklären, wie das Trinkwasser in Deutschland (und in vielen anderen Ländern) geschützt wird …
http://www.lebensraumwasser.com/2016/05/14/tatort-der-hundertste-affe-fragen-und-antworten-zur-trinkwasser-sicherheit/

Ein künstlicher Berg soll Wasser in die arabische Wüste bringen
10.05.2016 Die Vereinigten Arabischen Emirate möchten in Zukunft selbst bestimmen, wie das Wetter ist. Deshalb arbeiten Wissenschaftler derzeit daran, einen künstlichen Berg zu errichten, der für mehr Niederschläge in der Region sorgen soll. Der Berg soll mitten in der Wüste errichtet werden. An ihm sollen sich Luftmassen anstauen, die durch das Hindernis zum Aufsteigen gezwungen werden. Dabei sinkt die Temperatur der Luft und es bilden sich Wolken — die anschließend die, an sich trockene, Wüstenlandschaft mit Sinkregen bewässern … Wo der Berg stehen wird und wieviel Wasser die Vereinigten Arabischen Emirate auf diese Weise ernten können, ist ebenfalls noch nicht bekannt. Erst wenn diese Fragen geklärt sind, möchten die Verantwortlichen klären, was der Bau des künstlichen Bergs kosten würde und entscheiden, ob das Projekt wirklich umgesetzt wird. Mit künstlichen

Landschaftsveränderungen, dem sogenannten Geo-Engineering, haben die Vereinigten Arabischen Emirate immerhin schon Erfahrung …
https://www.wired.de/collection/latest/kuenstlicher-berg-soll-wasser-die-arabische-wueste-bringen

A grand but faulty vision for Iran's water problems
9 May 2016 Massive water transfer schemes are no solution to Iran's growing problems with drought. Grand vision of eliminating water scarcity looks attractive for tens of millions of people in the desert cities of central Iran worried about drought. Ambitious water transfer projects are being put in place to answer a call from President Hassan Rouhani. Two high-profile projects would see desalinised water transferred to the central plateau from the Caspian Sea, and from the Persian Gulf and Sea of Oman … But as construction begins, a simple question remains. Is pumping desalinised water from hundreds of kilometres away a sustainable way to support dehydrated mega-cities and parched farmlands? The country's water and natural resources experts say no. They object on both economic and environmental grounds. Some academics and environmental activists have demanded the Caspian Sea project be scrapped because of the likely consequences of deforestation, and habitat and biodiversity loss, in the Hyrcanian forests, the steppe and alpine ecosystems of the Alborz Mountains, and in the Caspian Sea itself. They are also concerned that Iran might set a precedent for Azerbaijan, Kazakhstan, Russia and Turkmenistan, the four countries also adjoining the land-locked Caspian Sea … But it is still possible to implement a host of water management strategies to alleviate water scarcity before slashing the country with lavish projects. These include appropriate water pricing, incentives for conservation, improving farming technologies and practices, capturing stormwaters, reducing leakage in aging distribution networks, limiting groundwater withdrawal, and recycling waste water. Interbasin transfer of desalinised water is one of the less favourable options. It should be used only as a last resort.
http://www.theguardian.com/world/2016/may/09/iran-desalination-water

War and Peace and Water
Laura Tuck, World Bank Group Vice President for Sustainable Development.
MAY 4, 2016 – India is currently facing its worst water crisis in years, with an estimated 330 million people – one-quarter of its population – affected by severe drought. Ethiopia is also dealing with its worst drought in decades, which has already contributed to the failure of many crops, creating food shortages that now affect around a tenth of the population. Under such circumstances, the risk of tension over resources is high … Today, actual wars between countries over water resources are uncommon, owing to improved dialogue and cross-border cooperation. But, within countries, competition for scarce water is becoming a more common source of instability and conflict, especially as climate change increases the severity and frequency of extreme weather events. As we detail in our new report "High and Dry: Climate Change, Water and the Economy," limited and erratic water availability reduces economic growth, induces migration, and ignites civil conflict, which fuels further potentially destabilizing migration … we predict that water scarcity could act as a conflict-risk multiplier, fueling cycles of resource-driven conflict, violence, and displacement, especially in already water-stressed regions, such as the Middle East and the Sahel in Africa, where agriculture remains an important source of employment. Fortunately, there is a way to avoid the cycle of poverty, deprivation, and conflict. If countries take action now to implement effective water-management policies and practices, backed by well-designed incentives, they can not only reverse the slide toward water scarcity, but also raise their rates of economic growth by as much as six percentage points per year. One water-scarce country that has taken action to improve its resilience to climate change is Morocco … the government has been investing in modernizing irrigation infrastructure to provide farmers with more efficient water services that enable them to adjust more easily to variations in water availability … authorities are also working to improve groundwater governance, to avoid over-extraction. Farmers engaged in rain-fed agriculture receive support that helps them to make better use of rainfall – such as through the introduction of climate-resilient practices like direct seeding – resulting in higher yields than traditional practices produce during dry years. The message from Morocco – and from our report – is that, with smart water policies and interventions, countries can ensure a climate-resilient, water-secure future. At the core of effective water-management strategies will be improved planning for water-resource allocation, the adoption of incentives to increase

efficiency, investment in infrastructure for improved water security, and better urban planning, risk management, and citizen engagement. The recently created International High-level Panel on Water, comprising ten heads of state, will be promoting precisely this agenda to foster better water management globally … Of course, not every country will follow the same path in safeguarding a water-secure future. But, as countries develop their strategies, they can look to one another for ideas and insights into what works – and what doesn't. With strong and prudent action, governments around the world can cope effectively with the natural limitations and uncertainties affecting water resources, ensuring that their people and economies are prepared for what might lie ahead.
https://www.project-syndicate.org/commentary/water-management-political-instability-by-laura-tuck-2016-05

BEZUGSDOKUMENT

May, 3 2016 **World Bank report: High and Dry: Climate Change, Water, and the Economy**
http://www.worldbank.org/en/topic/water/publication/high-and-dry-climate-change-water-and-the-economy

Siehe auch:

May 3, 2016 **Economies could shrink by mid-century due to scarce water - World Bank …** - Economies across large swathes of the globe could shrink dramatically by mid-century as fresh water grows scarce due to climate change, the World Bank reported … The Middle East could be hardest hit, with its gross domestic product slipping as much as 14 percent by 2050 unless measures are taken to reallocate water significantly … Such measures include efficiency efforts and investment in technologies such as desalination and water recycling … Fresh water shortages could take a toll on sectors from agriculture to energy … Water is of course at the center of life, but it's also at the center of economic activity …
http://www.reuters.com/article/us-climatechange-economies-worldbank-idUSKCN0XU25U

May 4, 2016 **Could a Lack of Water Cause Wars?** … By increasing an upstream user's ability to store water, you potentially lessen water security for people downstream. If you have two water-scarce neighbors like India and Pakistan, water action could ignite conflict. That means organizations must tread carefully when setting international water policy …
http://www.scientificamerican.com/article/could-a-lack-of-water-cause-wars/

05/11/2016 **How Water Scarcity Could Cause GDP To Decline** …
http://www.huffingtonpost.com/entry/water-scarcity-could-cause-gdp-to-decline-in-affected-countries-world-bank_us_57325df2e4b016f3789780f2

India's Water Crisis

MAY 3, 2016 … Mr. Modi's most urgent task is to help those suffering from the drought. He must also place water at the center of his development agenda. A growing population means that India's water needs will only increase, even as climate change will most likely make water scarcer …
http://www.nytimes.com/2016/05/04/opinion/indias-water-crisis.html?_r=0

Siehe auch:

May 14th 2016 **Unholy woes - India's water shortage owes more to bad management than drought** …
http://www.economist.com/news/asia/21698678-indias-water-shortage-owes-more-bad-management-drought-unholy-woes

05. Mai 2016 - **Hunderte Inder fordern einen nachhaltigeren Umgang mit Wasser** …
http://www.swissinfo.ch/ger/hunderte-inder-fordern-einen-nachhaltigeren-umgang-mit-wasser/42135476

May 9, 2016 **Armed guards protect last water in drought-parched Indian city** …
http://www.reuters.com/article/us-india-water-shortage-idUSKCN0Y00HA

Russia Hopes to Relieve Parched China With Water From Altai

03.05.2016 … Russia offers to China to discuss a project on the delivery of fresh water from Russia's Altai Territory through Kazakhstan, the Russian agricultural minister said. "We are ready to propose a project for the transfer of fresh water from the Altai Territory of Russia through Kazakhstan to the arid Xinjiang Uyghur Autonomous Region. In the near future, we will hold consultations with our colleagues from Kazakhstan on this issue," Alexander Tkachev said during the meeting with Chinese counterpart Han Changfu. Over the recent

years, China's Xinjiang has been approaching a water crisis as the consumption of pure water in the region almost surpasses the available water resources … Currently, rapid evacuation of spring floods at the major reservoirs in the Altai region is being underway, and in order to use water resources more efficiently, they could be delivered to China trough Kazakhstan …
http://sputniknews.com/world/20160503/1038985357/russia-agriculture-ministry-china.html
Danke für diesen Hinweis nach Berlin-Mitte! J.B.

Wasserverschmutzung: EU-Kommission knöpft sich Deutschland vor
2. Mai 2016 … Brüssel will beim Gerichtshof der EU Klage gegen Deutschland einreichen, weil die Bundesrepublik keine strengeren Maßnahmen gegen die Wasserverschmutzung durch Nitrate ergriffen hat … „Die von Deutschland zuletzt im Jahr 2012 übermittelten Zahlen sowie mehrere Berichte deutscher Behörden aus jüngster Zeit zeigen eine wachsende Nitratverunreinigung des Grundwassers und der Oberflächengewässer, einschließlich der Ostsee“, heißt es in einer Pressemitteilung der EU-Kommission vom 28. April. Infolge dieser Beobachtungen kassierte Deutschland bereits 2014 eine Mahnung. Dennoch habe die Bundesrepublik „keine hinreichenden Zusatzmaßnahmen getroffen, um die Nitratverunreinigung wirksam zu bekämpfen und seine einschlägigen Rechtsvorschriften entsprechend den für Nitrat geltenden EU-Vorschriften zu überarbeiten“. Berlins überarbeitete nationale Strategie gehe laut Kommission nicht weit genug … Im September 2014 hatte sich auch Frankreich vor dem Gerichtshof der EU verantworten müssen, weil es die Nitrat-Richtlinie schwer vernachlässigt hatte. Seitdem hat das Land seine Verschriften für die Nutzung dieser Chemikalien jedoch angepasst. Bald ist auch mit einer weiteren Gesetzesänderung diesbezüglich in Frankreich zu rechnen. Die nationale Umweltbehörde bleibt jedoch kritisch: „Es ist, als wolle man mit den Veränderungen lediglich alle Punkte des Gerichtsurteils abarbeiten. Die Wiederherstellung des Ökosystems, das durch Nitrate zerstört worden ist, scheint kein wirklicher Antrieb zu sein“ …
http://www.euractiv.de/section/energie-und-umwelt/news/wasserverschmutzung-eu-kommission-knoepft-sich-deutschland-vor/
Auch dafür, Danke nach Berlin-Mitte J.B.

Egypt must preserve its lifeline by tackling the water crisis now
30 April 2016 The Nile has been a lifeline for Egypt at least since the time of the pharaohs. Yet, despite the world’s largest river travelling for over 4,000 miles in the vicinity, water is now considered “scarce” in the country with the highest population in the Arab world … According to one estimate, Egypt’s per capita annual supply of water is expected to drop from 600 cubic meters to 500-cubic-meter threshold in 2025, the level categorized “absolute scarcity” as per international norms. This is an alarming situation as United Nations’ Africa Water Vision 2025 says the interdependence between water availability and development is exemplified by the link between water and poverty … Some of these can be attributed to the pressure of a rising population and shifting climactic conditions. However, there is a developmental element to it as well, which can be labeled as human intervention … things changed with dams beginning to regulate the flow of the Nile. The most prominent example is the Aswan High Dam of the 1970s. The Aswan helped in providing about a half of Egypt’s power supply and improving navigation along the river, but also, arguably, created conditions that have resulted in Egypt today becoming the world’s largest wheat importer … Egyptian economy has always relied heavily on the agricultural sector for food and other products … Egypt’s tryst with the Nile has been a classic case of too much water bringing destruction and too little bringing drought … Egypt has a battle at hand to ensure adequate conditions for its farmers. Like many other parched lands around the world, it needs to mitigate water scarcity, implement conservation techniques and control water pollution. The country also needs to implement more efficient irrigation techniques. Another challenge at hand is tackling the issue of Ethiopia building a dam and hydroelectric plant upstream that may cut Egypt’s share of the Nile. These challenges are going to be absolutely critical for farmers of Egypt, and the country as a whole, considering it continues to be a predominantly rural population. Finding answers to these are indeed more important than hunt for gold that is going on in the country’s deserts.
http://english.alarabiya.net/en/views/news/middle-east/2016/04/30/Egypt-must-preserve-its-lifeline-by-tackling-the-water-crisis-now.html
+ noch einmal: Danke nach Berlin-Mitte J.B.

Massachusetts Institute of Technology

Water problems in Asia's future?

Study finds high risk of severe water stress in Asia by 2050.

http://news.mit.edu/2016/water-problems-asia-0330

Video: Asia Faces Water Shortages

April 15, 2016 … China and India will be facing severe water shortages by 2050 due to a perfect storm of economic growth, climate change, and fast growing populations …

http://www.scientificamerican.com/video/asia-faces-water-shortages/

„Von der Toilette in den Wasserhahn" oder wie sich die Welt des Wassers verändert …
25. April 2016 … Wasser hat seinen Wert, aber nur selten den richtigen Preis. Wie jede Ressource deren Vorräte knapper werden, verdient das Wasser seinen Knappheitspreis. Das wird zwar vielen, die Wasser als Menschenrecht bezeichnen nicht gefallen, aber der Wunsch muss den Realitäten weichen …
http://www.lebensraumwasser.com/2016/04/25/von-der-toilette-in-den-wasserhahn-oder-wie-sich-die-welt-des-wassers-veraendert-und-wir-deutschen-nicht-dabei-sind/

Video: Thousands march to Guatemala's capital for water rights Environment
Apr 25, 2016

http://video.aljazeera.com/channels/eng/videos/thousands-march-to-guatemalas-capital-for-water-rights/4859431149001

Video: What can be done to stop global water scarcity?
24 Apr 2016 The UN says in the next 10 years more and more countries will see their resources dry up.

http://www.aljazeera.com/programmes/insidestory/2016/04/stop-global-water-scarcity-160424175518314.html

Year after earthquake, Nepal suffers water shortages
23 April 2016 … The earthquake has disrupted aquifers, making this dry season's water scarcity much more acute. Santosh Nepal, a water expert at the International Centre for Integrated Mountain Development, explains: "During the earthquake, the displacement of land surface also disturbs the groundwater storage." Land gets compressed in some places, producing more spring water, whereas it expands in other areas resulting in less spring water. Similarly, the interconnected water pathways below the surface get disrupted and water changes course …
http://www.aljazeera.com/news/2016/04/nepal-earthquake-water-shortages-160423101445625.html

Asia's Troubled Water
APR 22, 2016 – Asia's water woes are worsening. Already the world's driest continent in per capita terms, Asia now faces a severe drought that has parched a vast region extending from southern Vietnam to central India. This has exacerbated political tensions, because it has

highlighted the impact of China's dam-building policy on the environment and on water flows to the dozen countries located downstream. Today's drought in parts of Southeast and South Asia is the worst in decades. Among the hardest-hit areas are Vietnam's Mekong Delta (a rice bowl of Asia) and central highlands; 27 of Thailand's 76 provinces; parts of Cambodia; Myanmar's largest cities, Yangon and Mandalay; and areas of India that are home to over a quarter of the country's massive population … Millions of Asians now confront severe water shortages, and some have been forced to relocate … Meanwhile, the mounting drought-related losses in some of the world's top rice-producing countries – Thailand, Vietnam, and India – threaten to roil the world's already tight rice market … This drought may be unprecedented, but it is not an anomaly. On the contrary, environmental challenges in Asia, such as ecosystem degradation, groundwater depletion, the contamination of water resources, the El Niño tropical weather pattern, and the effects of global warming are causing droughts to become increasingly frequent – and increasingly severe. Even without droughts, Asia would be facing formidable water constraints. The annual amount of available fresh water per capita in the region (2,816 cubic meters) already is less than half the global average (6,079 cubic meters). As the region pursues rapid economic development, characterized by massive increases in resource consumption and serious environmental damage, its water constraints are tightening further. The challenge is compounded by Asians' changing dietary preferences, particularly higher consumption of meat, the production of which is notoriously water-intensive. While Asia's resource-hungry economies can secure fossil fuels and mineral ores from distant lands, they cannot import water, which is prohibitively expensive to transport. So they have been overexploiting local resources instead – a practice that has spurred an environmental crisis, advancing regional climate change and intensifying natural disasters like droughts. As a result, Asia, which accounts for 72% of the world's total irrigated acreage, now faces a dilemma: It must grow enough food to meet rising demand, while reducing the amount of water that goes toward irrigation. Unless Asia resolves it, economic development will be imperiled, with major consequences for the entire global economy … The main culprit … is China, which has heavily dammed the Mekong, Southeast Asia's lifeline. In the current lean season, which will last until the monsoon rains arrive in June, the lower Mekong is, according to a recent United Nations report, running at "its lowest level since records began nearly 100 years ago." China is now trying to play savior, by releasing an unspecified quantity of water from one of its six upstream mega-dams to "accommodate the concerns" of drought-stricken countries. China's rulers have touted the move as underscoring the effectiveness of upstream "water facilities" in addressing droughts and containing floods. Of course, in reality, all of this simply highlights the newfound reliance of downriver countries on Chinese goodwill – a dependence that is set to deepen as China builds 14 more dams on the Mekong … is putting Asia on a dangerous path, which can lead only to more environmental degradation, slower economic development, and even water wars. It is time to change course and embark on the path of rules-based cooperation, based on water-sharing accords, the free flow of hydrological data, and dispute-settlement mechanisms. Asian countries must work together to ensure greater efficiency in water consumption, increase the use of recycled and desalinated water, and promote innovative solutions that advance conservation and adaptation efforts. To this end, governments must phase out state subsidies that have encouraged profligate water use, such as in agriculture, and focus on building new market mechanisms and effective public-private partnerships. None of this will be possible without China's cooperation. Indeed, if China does not abandon its current approach – from its "water grab" in the Mekong and other international rivers to its "territorial grab" in the South China Sea – the prospects for a rules-based order in Asia could perish forever.
https://www.project-syndicate.org/commentary/mekong-dams-impact-on-asian-water-supply-by-brahma-chellaney-2016-04
Siehe auch:
30 Mar 2016 **'High risk' of severe water stresses in Asia by 2050**…
http://www.cnbc.com/2016/03/30/high-risk-of-severe-water-stresses-in-asia-by-2050-study.html

How to Solve Gaza's Water Crisis
April 21, 2016 As Israeli-Palestinian violence continues to escalate, and Israel's occupation enters its 50th year, Gaza could be just months away from running out of safe drinking water. As drinking water underneath Gaza vanishes, the threat of pandemics and violence is on the

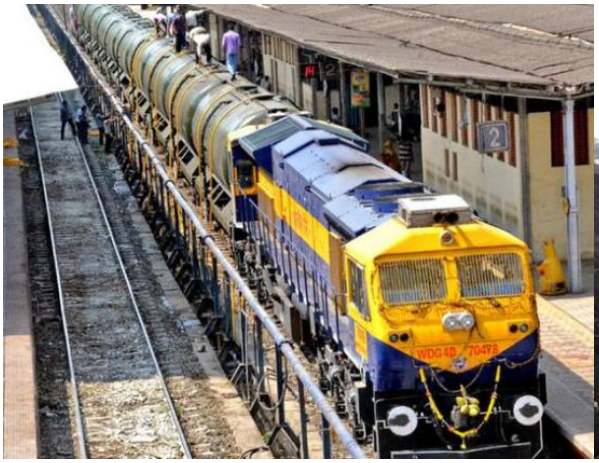
rise. Like the Flint, Mich., water travesty, the water crisis in Gaza is man-made. And like in Flint, what is most lacking to resolve it are not technical solutions but political will. The Gaza water crisis is a ticking global-health time bomb. With dire water and electricity shortages in one of the planet's most densely populated areas, the threat of a pandemic in Gaza—and also across Israel's borders—is real. There are three steps that can help defuse this crisis and ensure a brighter future for Israelis and Palestinians: … 1. Israel can double the amount of water it sells to Gaza … 2. Israel can increase its sale of electricity to Gaza … 3. Gaza must be permitted to repair its water and electricity infrastructure … Walls, fences and checkpoints can stop terrorist infiltration, but they can't stop the infiltration of sewage, or water borne diseases like cholera or dysentery. Walls can't stop polio, which the World Health Organization has found some evidence of in Gaza's sewage …
http://time.com/4301139/gaza-water-crisis/

China's housing boom has destroyed its biggest cities' drinking water
April 19, 2016 More than 70% of the watersheds that supply water to China's 30 largest cities are severely polluted, threatening the water supply for hundreds of millions of people, a recent report finds … analyzed the 135 surface water sources tapped by China's 30 largest, fastest-growing cities, including Beijing, Shanghai, Guangzhou and Wuhan. Of these, 73% "face medium to high pollution levels," affecting the lives of 860 million people in areas that contributed about 55% of China's GDP in 2010 … Roughly half of China's water pollution is linked to fertilizers, pesticides, and livestock waste, the report says. Poorly treated sewage and industrial spills are other sources … The catchments provide 93% of the drinking water supply to the 30 surveyed Chinese cities… is typically channeled through a large network of reservoirs, canals and pipelines, and most urban water catchments rely on natural resources such as forests and wetlands to protect water quality … The problem has been especially acute in China because government officials have been maximizing local economic growth through the sale and development of real estate, which accounts for about 35% of local government revenue … Local officials care more about GDP growth when they are in office then long-term investment in catchment conservation … To meet the water shortage, China is moving more than a River Thames of water across the country, under a project started in 2014 …
http://qz.com/664751/chinas-housing-boom-has-destroyed-its-biggest-cities-drinking-water/
BEZUGSDOKUMENT: **China Urban Water Blueprint**
http://water.nature.org/waterblueprint/region/china/#/section=overview&c=4:32.00000:100.19531
Siehe auch:
April 25, 2016 **A warning for parched China: a city runs out of water** … China is home to more than 20 percent of the world's population, but it contains only 7 percent of the world's fresh water …
http://www.marketplace.org/2016/04/21/world/warning-parched-china-city-runs-out-water
April 18, 2016 **Investing in Nature Can Help Solve Water Pollution Challenges in China's 30 Largest Cities** …
http://www.nature.org/newsfeatures/pressreleases/investing-in-nature-can-help-solve-water-pollution-challenges-in-chinas-30-l.xml
04/19/2016 **Here's How To Get Cleaner Water For 700 Million People** … The idea that nature can provide services on par with traditional infrastructure investments has long been touted by environmentalists. It is now gaining more widespread recognition from unlikely places: companies with a history of pollution … China may someday serve as a valuable case study for other countries looking to improve their water. Seventy-three percent of China's watersheds are significantly polluted … A problem like that is hard to ignore, and there seems to be a recognition that conservation can help provide China with clean water. About 16 years ago, China kicked off the world's largest conservation program, which aimed to restore the country's forests. The effort appears to be working … By paying farmers and former loggers to serve as stewards of the country's woodlands, instead of simply banning deforestation, the country gained much more forest than it lost in the decade after it kicked off the program. Between 2000 and 2010, China recovered about 1.6 percent, or 61,000 square miles, of tree cover ... That compares to the 0.38 percent, or 14,400 square miles, of forest cut down. Replanting forests is one of the five ways … to help improve water quality …
http://www.huffingtonpost.com/entry/how-to-get-cleaner-water-for-700-million-people_us_57153346e4b0060ccda3f862

18.04.16 **Studie zur Wasserverschmutzung: So verseucht sind Chinas Flüsse und Seen** …
http://www.spiegel.de/wissenschaft/natur/china-wasser-in-einem-drittel-der-fluesse-und-seen-verseucht-a-1087799.html

Iraq: Italian Team Arrives For Work On Mosul Dam
April 19, 2016 A team of Italian engineers arrived in northern Iraq to begin repairs on the strategic Mosul Dam, which U.S. and Iraqi officials have repeatedly warned is in danger of collapse, NRT reported. Italy's Trevi firm has signed a deal worth nearly $300 million to repair the critical dam. A collapse would be disastrous, considering that anywhere between 500,000 and 1.5 million Iraqis live in the path of possible floodwater. Italy has said it will send 450 troops to protect the team working on the dam. Islamic State militants briefly seized the dam in 2014, generating fears of a massive flood that could have killed thousands of civilians.
https://www.stratfor.com/sample/situation-report/iraq-italian-team-arrives-work-mosul-dam

Indien: Dürre und Wasser zu Wucherpreisen
18.04.2016 Bauern verkaufen ihr Vieh, ziehen in die Städte, Hunderte bringen sich gar um, weil sie nicht mehr weiter wissen. Große Teile Zentralindiens leiden unter einer dramatischen Dürre, während private Firmen Wasser zu Wucherpreisen verkaufen …
http://www.heute.de/rekord-duerre-in-indien-treibt-bauern-in-die-verzweiflung-43117824.html
Siehe auch:
April 06, 2016 **India's looming water wars can destroy everything, from "Make in India" to smart cities** … India has the world's largest number of people without access to clean water. The biggest financial burden of this has fallen on its poorest agrarian communities. But the crisis is now spilling over to its industries as well …
http://qz.com/654851/indias-looming-water-wars-can-destroy-everything-from-make-in-india-to-smart-cities/
12.04.2016 **Zug mit 550'000 Litern Wasser für Dürreregion in Indien** … Unter Jubelrufen sei der Zug mit zehn Waggons … in Latur im Bundesstaat Maharashtra angekommen …
http://www.blick.ch/news/ausland/indien-zug-mit-550000-litern-wasser-fuer-duerreregion-in-indien-id4910632.html




April 12, 2016 **In parched Latur town, a long wait for the water express** … Drought-weary people are ready with flowers and bouquets, led by the activists of the Latur Sukanu Committee on Water, which spearheaded the agitation demanding the water wagons, to welcome the train …
http://www.thehindu.com/news/national/other-states/water-train-leaves-miraj-for-droughthit-latur/article8460910.ece

Water Reclamation Technology Flows Ahead
MARCH 17, 2016 Few geographic constraints are more universal than water scarcity. Although every country sees it in different ways and to different degrees, water stress is a problem that even water-rich states such as Canada experience. And with overuse, population growth and changing environments putting more strain on the world's limited fresh water resources, scarcity is becoming an even bigger concern. As global demand rises and supplies fall short, improving water purification methods will become an attractive option for

countries looking to close the gap. Materials such as graphene are already paving the way to cheaper, more effective and more energy efficient filtration methods. Desalination and water recycling can go a long way in making up for scant natural water resources. Israel, for example, has been highly successful in using both to overcome its inherent lack of water. The water reserves in the arid nation are extremely vulnerable both to its neighbors and its environment. These conditions have necessitated a rather unusual response: Israel recycles and desalinates a sizable share of its water. Recycled water, which is essentially reclaimed wastewater, accounts for 55 percent of agricultural water consumption, and Israel's desalination capacity is expected to equal its natural internal resources within the next four years … If desalination and water recycling are to be used on a broader scale, scientists will have to find a way to reduce the amount of energy consumed in the filtration process to make them more competitive with natural water resources. Even then, the high costs of transporting water over long distances would remain, limiting the effect seawater desalination could have. Bringing down energy consumption is key, and some progress has recently been made on that front. Desalination by reverse osmosis — currently the industry standard — requires forcing water through cell membranes at high pressures to reduce the salt concentration present in either seawater or brackish water. Achieving those high pressures typically requires a large amount of energy, but graphene filters may soon change that. Graphene is much more permeable than the materials traditionally used to make desalination filters, reducing the amount of energy needed to separate salt from the water passing through it. According to some estimates, graphene filters can lower the monetary cost of producing water through desalination by as much as 20 percent …
https://www.stratfor.com/sample/analysis/water-reclamation-technology-flows-ahead

Pathways to Resilience: Evidence on Links Between Conflict Management, Natural Resources, and Food Security
16 April 26 … Since natural resource management is important to each side in communal conflicts over land and water, improved natural resource management introduces a real cost to violence – losing access to certain resources – and reduces the potential for disagreements to escalate ... the Office of Food for Peace at USAID … has long understood violence affects their work … We are food security actors…We speak in a language of food security …
https://www.newsecuritybeat.org/2016/04/pathways-resilience-evidence-links-conflict-management-natural-resources-food-security/

Clinging on against drought in Ethiopia
14.04.2016 A way of life is threatened in Ethiopia's Somali region worst affected by drought … Described as the worst drought in living memory of Ethiopia's Somali region, elders who have lived through many droughts say livestock on which communities depend were devastated. It's estimated that more than 600,000 animals died in Siti zone, the northern-most part of Ethiopia's Somali region … Across Ethiopia more than 10 million people are affected by this drought, with another 7.9 million already supported by the government's food security Productive Safety Net Program. Following the Ethiopian government's October 2015 appeal for assistance, long-standing international partners and organizations have been ringing the alarm bell as they go into action in places like Fedeto to avert a humanitarian crisis. To help prevent escalation of an already serious situation, the European Commission Humanitarian Aid and Civil Protection department (ECHO) on April 8 announced a package of 122 million euros(US$138million) to help Ethiopia tackle the drought's fallout … What of the future? …
http://www.dw.com/en/clinging-on-against-drought-in-ethiopia/a-19179222
Siehe auch:
23.3.2016 **Dürre am Horn von Afrika** …
http://www.nzz.ch/international/afrika/duerre-am-horn-von-afrika-auf-wasser-warten-ld.9288

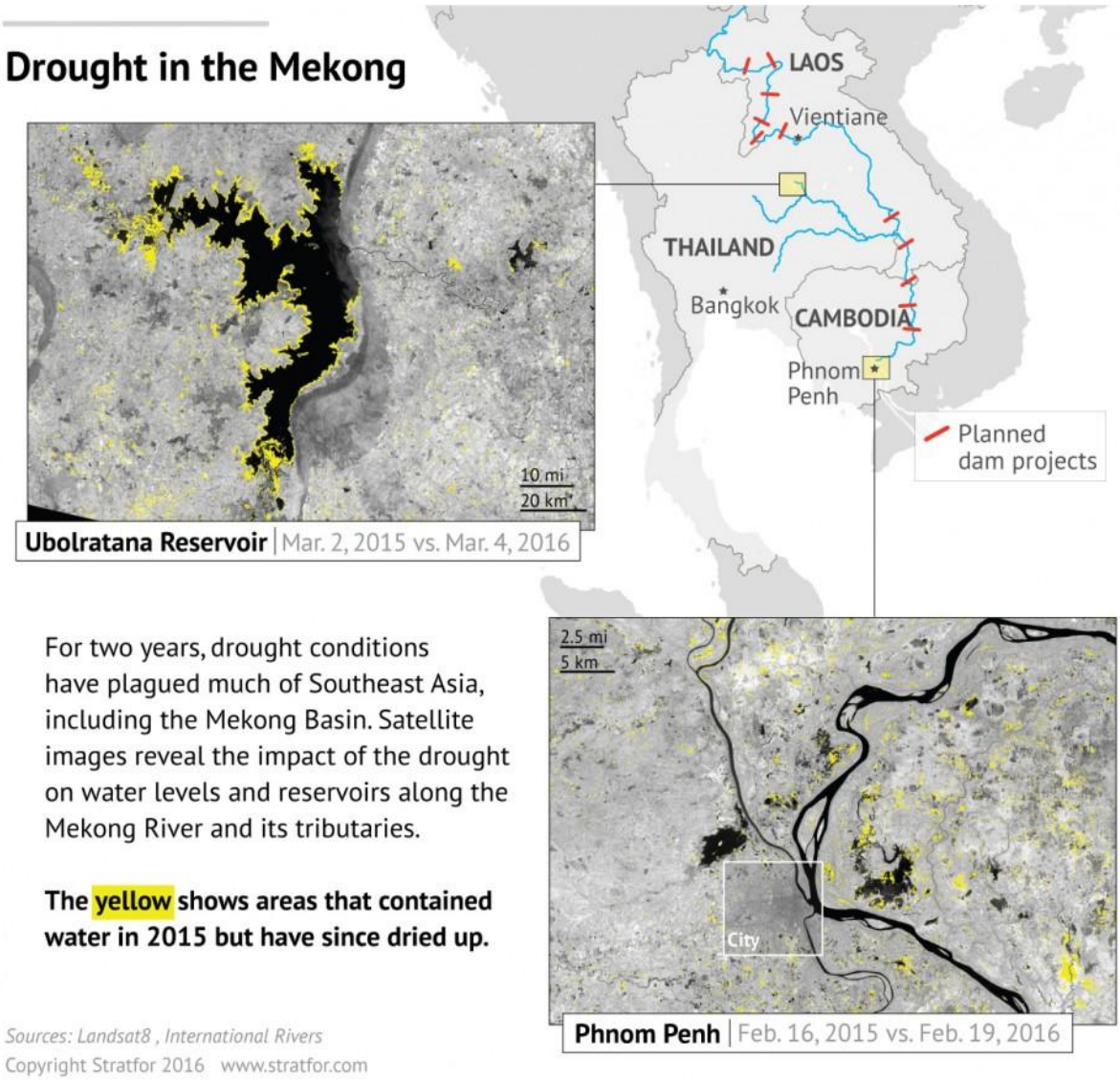
Türkei: Sauberes Wasser für weitere Millionen Menschen in Afrika
Apr 14, 2016 Die Türkei wird weitere neun afrikanische Länder in der Wasserwirtschaft unterstützen. Dies gab Minister Veysel Eroglu … bekannt. Bis dato sind türkische Projekte zur Wasserversorgung und Aufbereitung in acht Ländern präsent … Projekte des Ministeriums umfassen die Hilfe beim Bau von Brunnen, die Überwachung und das Management der Wasserqualität, Reinigungstechnologien für Wasser und Abwasser,

Bewässerung, Dammbau sowie den Schutz, die Verbesserung und das Management der Wasserressourcen … Derzeit profitieren 1,7 Millionen Menschen auf dem Kontinent von den türkischen Projekten, bis 2019 soll diese Zahl auf drei Millionen ansteigen. Bis dato gibt es Projekte in Äthiopien, Somalia, Sudan, Burkina Faso, Gambia, Mauretanien, Niger, Mali und Djibouti; künftig wird türkisches Know-How in der Wasserwirtschaft auch im Tschad, in Togo, Benin, Ghana, Guinea, Senegal, Guinea Bissau, Gambia und Kenia verfügbar sein …
http://www.nachrichtenxpress.com/04/2016/tuerkei-sauberes-wasser-fuer-weitere-millionen-menschen-in-afrika/

What will happen if the world's biggest companies don't take water seriously?
13 April 2016 Business claims to take drought seriously, but many have no idea how much water they use and where. This is why they should act. Under the new Sustainable Development Goals, 193 countries have pledged to deliver water for all by 2030. With the UN recently publishing a list of indicators to evaluate progress, now is the time for the business sector to step up and contribute … Despite a string of widely reported droughts in recent years, the private sector still generally treats water as though it were an abundant resource. Don't underestimate companies' sheer ignorance about their own water use either. "A lot of businesses have no idea how much water they consume nor where that water comes from, where it goes or what their exposure to water-related risks are," says Morgan Jones, an associate director at the Carbon Trust, which has developed its own water certification system …
http://www.theguardian.com/sustainable-business/2016/apr/13/worlds-biggest-companies-water-drought-shortages

Naher und Mittlerer Osten - .Der Kampf ums Wasser
12. April 2016 Nahezu alle Staaten im Nahen und Mittleren Osten leiden unter Wassermangel. Jahrelange Dürre gehört auch zu den Faktoren, die den syrischen Bürgerkrieg mit auslösten. Der Kampf ums Wasser könnte zur nächsten Welle blutiger Konflikte führen … mehr als die Hälfte aller iranischen Provinzen könnte in den nächsten 15 Jahren unbewohnbar und Millionen Landsleute zu Umweltflüchtlingen werden. Ähnlich düster ist die Lage auch beim regionalen Erzfeind Saudi-Arabien. In gut einem Jahrzehnt seien praktisch alle Grundwasservorräte des Landes aufgebraucht, prognostizierte eine Studie der König Faisal Universität in Al-Ahsa. Jemens Metropole Sanaa könnte sogar die erste Hauptstadt der Arabischen Welt werden, die von ihren Bewohnern wegen Trinkwassermangel aufgegeben werden muss. Entsprechend erbittert ist der Zank um die großen Ströme der Region – Euphrat und Tigris, Jordan und Karun sowie weißer und blauer Nil. Um Euphrat und Tigris streiten Türkei, Syrien und der Irak. Der Nil entzweit Äthiopien und Ägypten, der Jordan Israel und Jordanien, der Karun Iran und Irak. In gesamten Orient fehle es an verbindlichen Vereinbarungen, um die Nutzung von grenzüberschreitenden Flüssen zu regeln … Stattdessen agierten alle Nationen auf eigene Rechnung …
http://www.cicero.de/weltbuehne/naher-und-mittlerer-osten-der-kampf-ums-wasser/60763

Drought Gives China Options in Southeast Asia
April 12, 2016 In times of scarcity, nations compete more fiercely to meet their essential needs and defend precious commodities. Water is no exception, particularly that of the Mekong River of mainland Southeast Asia … To complicate matters, China, a dominant power in the region, controls the river's headwaters. Beijing can dictate not only how it uses water but also, in part, how its downstream neighbors do. Additionally, China has a diverse economy that, unlike its neighbors', does not depend on the Mekong and its tributaries … Beijing can exploit its role upstream to help bring the other Mekong Basin countries into closer alignment, likely through infrastructure development first. China's interest in diversifying its economic connections, maritime routes and other supply lines in the area will not ebb anytime soon. The drought will assist Beijing in pursuing these efforts, highlighting water politics in a region where they already play an important role …

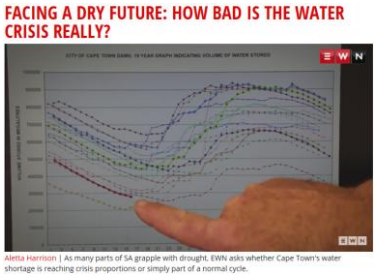


https://www.stratfor.com/sample/image/drought-gives-china-options-southeast-asia
Danke für diesen Hinweis nach Berlin-Mitte J.B.

Wasser kann eine große Rolle bei der Konfliktverschärfung spielen
31. März 2016 … Deutschland hat im Rahmen der Entwicklungszusammenarbeit im Bereich Wasser viel investiert und erreicht. In vielen Regionen der Welt genießt Deutschland in diesem Bereich daher großes Vertrauen. Gerade im Wasserbereich brauchen vertrauensbildende Prozesse oft viele Jahre, da die Planungsprozesse und Investitionen lang dauern und die geschaffene Infrastruktur auch sehr lange fortwirkt. Im Bereich Wasserdiplomatie bieten sich daher gute Chancen, den eigenen Anspruch und die Erwartungen seiner Partner an eine gewachsene außenpolitische Verantwortung Deutschlands wahrzunehmen und zu regionaler Stabilität und Prosperität beizutragen … https://www.trailer-ruhr.de/wasser-kann-eine-grosse-rolle-bei-der-konfliktverschaerfung-spielen
BEZUGSDOKUMENT: adelphi „**The Rise of Hydro-Diplomacy**“
https://www.adelphi.de/de/publikation/rise-hydro-diplomacy

Hackerangriffe auf kritische Infrastruktur Wasser. Kommt IT-Sicherheitsgesetz rechtzeitig?
10. März 2016 Vergangenes Jahr trat das IT-Sicherheitsgesetz in Kraft. Es regelt unter anderem, dass Betreiber Kritischer Infrastrukturen zur Umsetzung von Mindeststandards verpflichtet werden. Die jetzt vorgelegte Verordnung (BSI-KritisV) regelt, welche Betreiber unter den Regelungsbereich des IT-Sicherheitsgesetzes fallen. Wie dringend eine solche Regelung ist und warum eigentlich nicht nur die vom Gesetz erfassten Betreiber kritischer Infrastrukturen handeln sollten, belegen echte und simulierte Hackerangriffe auf Krankenhäuser und Wasserwerke … Zu den Kritischen Infrastrukturen zählen grundsätzlich auch Trinkwasserversorgungs- und Abwasserentsorgungsanlagen. Aber nicht alle Anlagen

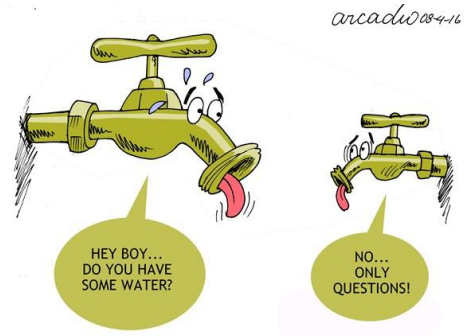
fallen unter das Gesetz. Den Geltungsbereich des IT-Sicherheitsgesetzes regelt eine Verordnung, die das Bundesministerium des Innern (BMI) am 2. Februar 2016 als Referentenentwurf vorgelegt und während einer Anhörung am 2. März 2016 beraten hat. Der Entwurf definiert die Schwellenwerte für Wasser- und Abwasser-Anlagen, bei deren Überschreiten die Anlagen als Kritische Infrastrukturen gelten. Für den Wasser- und Abwasserbereich liegen die Schwellenwerte bei einer Wassermenge von 21,9 Mio. Kubikmeter für die Trinkwasserversorgung und bei 500.000 Einwohnern für die Trinkwasserver- und Abwasserentsorgung … In der Abwasserbeseitigung sind demnach 80 Anlagen (Aggregate Kanalisation, Kläranlage und Leiteinrichtung) und bei der Trinkwasserversorgung 150 Anlagen (Aggregate Gewinnungsanlagen, Wasserverteiluungssystem, Wasserwerk, Aufbereitungsanlage und Leiteinrichtung) von der Regelung betroffen … Für Betreiber Kritischer Infrastrukturen der Trinkwasserversorgung und Abwasserbeseitigung gilt eine Meldepflicht nach §8 Abs. 4BSI-G für erhebliche IT-Sicherheitsvorfälle über eine verpflichtend einzurichtende und an das BSI zu meldende Alarmierungsstelle nach Inkrafttttreten der BSI-KritisV nach sechs Monaten, also voraussichtlich ab Oktober 2016. In Folge des IT-Sicherheitsgesetzes besteht die Verpflichtung den IT-Mindeststandard Wasser/Abwasser nach zwei Jahren einzuhalten, und erhebliche IT-Sicherheitsvorfälle zu melden. Die Betreiber müssen sicherstellen, dass sie über diese Kontaktstelle für das BSI jederzeit erreichbar sind …
http://www.lebensraumwasser.com/2016/03/10/hackerangriffe-auf-kritische-infrastruktur-wasser-kommt-it-sicherheitsgesetz-rechtzeitig/



Aletta Harrison | As many parts of SA grapple with drought, EWN asks whether Cape Town's water shortage is reaching crisis proportions or simply part of a normal cycle.

Video: Facing a dry future: How bad is the water crisis really?
March 2016 As many parts of SA grapple with drought, EWN asks whether Cape Town's water shortage is reaching crisis proportions or simply part of a normal cycle.
http://ewn.co.za/Media/2016/05/09/Facing-a-dry-future-How-bad-is-the-water-crisis-really

ZIELKONFLIKTE zwischen Klima- und Wasserschutz



160411 Esquivel AboutGlobalWarming

Deutsches Institut für Entwicklungspolitik (DIE)
Was heißt das Pariser Klimaabkommen für die Wasserpolitik?
22.03.2016 … Verabschiedung der globalen Nachhaltigkeitsziele (Sustainable Development Goals, SDGs) der Vereinten Nationen im September 2015 und des Pariser Klimaabkommens im Dezember 2015 … Was … bedeutet das Klimaabkommen von Paris für die Wasserpolitik? Bislang wurde die lebenswichtige Bedeutung von Wasser und damit verbundene Zielkonflikte mit der Klimapolitik weitgehend ignoriert. Auf den ersten Blick spielt Wasser im Pariser Abkommen keine Rolle. Doch bei genauerem Hinsehen zeigt sich, dass die Klimapolitik weitreichende Folgen für die Verfügbarkeit von Wasser und umgekehrt haben wird … wird … oft ausgeblendet, dass Wasser das Medium ist, über das der Klimawandel sich am deutlichsten und unmittelbarsten auf unsere Lebensumstände und viele Wirtschaftszweige … auswirkt. Gleich ob es sich dabei um die klimabedingte Zunahme von Dürren oder Überschwemmungen, um saisonale Veränderungen der Niederschläge, um die Verknappung lokal verfügbarer Wasserressourcen … oder die Verschlechterung der Wasserqualität … handelt. Wenn der Klimawandel Menschen veranlasst zu migrieren, dann weil dieser sich in vermehrten Dürren oder Überschwemmungen niederschlägt. Folglich muss sich die Wasserpolitik erstens auf die Zunahme von extremen Wetterereignissen, zweitens auf klimawandelbedingte Verknappungen sowie drittens auf qualitative Verschlechterungen der Ressource Wasser einstellen. Wichtige Maßnahmen zur Anpassung an den Klimawandel im Wassersektor umfassen die Speicherung von Wasserressourcen

durch Wälder, Feuchtgebiete oder künstliche Speicher, ein verbessertes Boden-Wasser-Management im Regenfeldbau oder auch den Hochwasserschutz. Gleichzeitig können andere Anpassungsmaßnahmen, wie der Ausbau der Bewässerungslandwirtschaft, selbst die Verfügbarkeit und Qualität von Wasserressourcen reduzieren … Noch weniger berücksichtigt wird bislang, dass auch Klimaschutzmaßnahmen mit einem hohen Wasserverbrauch einhergehen können … Fast alle Szenarien des Weltklimarates, in denen die Einhaltung der Grenze von 2°C Erwärmung als wahrscheinlich gilt, setzen in einem erheblichen Ausmaß auf Technologien mit negativen Emissionen, also solchen, die Kohlenstoffdioxid (CO2) aus der Atmosphäre in Kohlenstoffsenken binden … Dabei werden Zielkonflikte zwischen Klimaschutz und Wasserschutz sichtbar. Insbesondere die Bioenergieproduktion, aber auch die CCS-Technologie verbrauchen erhebliche Mengen von Wasser, was insbesondere regionale Wasserknappheiten weiter verschärfen kann. Weiterhin stünde der massive Wasser- und Landverbrauch durch BECCS in Konkurrenz mit der Nahrungsmittelproduktion. Die Alternative zu BECCS ist lediglich ein schnellerer, radikalerer Umbau zu kohlenstofffreien Gesellschaften, da umgekehrt der Verzicht auf die Einhaltung der 2°C-Grenze (auch) wasserpolitisch vom Regen in die Traufe führen würde: eine wärmere Welt würde ebenfalls den Druck auf Wasserressourcen erheblich erhöhen. Werden die Zielkonflikte zwischen Klimaschutz und Wasserschutz nicht rechtzeitig ernst genommen, drohte der Klimaschutz das Wasserziel (SDG 6) in Frage zu stellen. Das würde gleichsam andere Nachhaltigkeitsziele, die von einer ausreichenden Wasserverfügbarkeit abhängen, wie etwa „keine Hungersnot“ (SDG 2), „nachhaltige Städte und Gemeinden“ (SDG 11) und „Leben an Land“ (SDG 15) gefährden. Für die Wasserpolitik bedeutet dies, dass ein nachhaltiges Wasserressourcenmanagement im Sinne von SDG 6 nicht nur angesichts der Anpassung an den Klimawandel, sondern auch wegen des Klimaschutzes in Zukunft umso wichtiger wird …
https://www.die-gdi.de/die-aktuelle-kolumne/article/was-heisst-das-pariser-klimaabkommen-fuer-die-wasserpolitik/
siehe auch:
SWP
Nach dem Pariser Klimaabkommen - Neue Herausforderungen für eine Vorreiterrolle der EU
März 2016 … Im Dezember 2015 haben 195 Staaten in Paris ein neues globales Klimaabkommen (Paris-Abkommen) verabschiedet. Es stellt ein Regelwerk für die Klimapolitik ab 2020 auf und konkretisiert die Ziele der Klimarahmenkonvention (UNFCCC) … Will die Europäische Union (EU) ihrer Vorreiterrolle gerecht werden, wird sie sich 2016 vorrangig zwei Aufgaben widmen müssen. Zum einen gilt es, die Umsetzung der bis 2030 zu erreichenden Klima- und Energieziele, die der Europäische Rat bereits im Oktober 2014 beschlossen hat, mittels Gesetzgebungsverfahren zu konkretisieren. Zum anderen muss die Zusammenarbeit mit den Entwicklungsländern schnell weiter ausgebaut werden …
http://www.swp-berlin.org/de/publikationen/swp-aktuell-de/swp-aktuell-detail/article/nach_dem_pariser_klimaabkommen.html
[*Kein Wort zu den Klima- und Wasserpolitik-Interdependenzen?!* J.B.]
Englisch: **After the Paris Agreement - New Challenges for the EU’s Leadership in Climate Policy** …
http://www.swp-berlin.org/fileadmin/contents/products/comments/2016C19_dge_gdn.pdf

Institute for Advanced Sustainability Studies (IASS)
Sichere und nachhaltige Energie in einer Welt mit begrenzten Wasservorräten:
Newsletter 2/2016 … empfiehlt das IASS die folgenden drei Schritte:
… Empfehlung 1: In wasserarmen Regionen sollte der Anteil von Windenergie und Photovoltaik erhöht werden. Windkraft und PV-Anlagen sind die Energiequellen mit dem niedrigsten Wasserverbrauch. Überdies tragen sie wegen ihrer sehr geringen Treibhausgasemissionen dazu bei, das Risiko klimabedingter Wasserverknappung zu mindern.
Empfehlung 2: Entscheidungen im Energiesektor sollten Wasserknappheiten berücksichtigen. Für den Wasserverbrauch im Energiesektor einen Preis zu erheben, der die tatsächlichen Wasserkosten annähernd widerspiegelt, könnte erheblich zu einer Verbesserung des Wassermanagements in diesem Sektor beitragen. Wasserknappheit in Energiesystemmodelle öffentlicher Planung einzubeziehen ist mit geringem Aufwand verbunden und kann äußerst positive Auswirkungen haben.

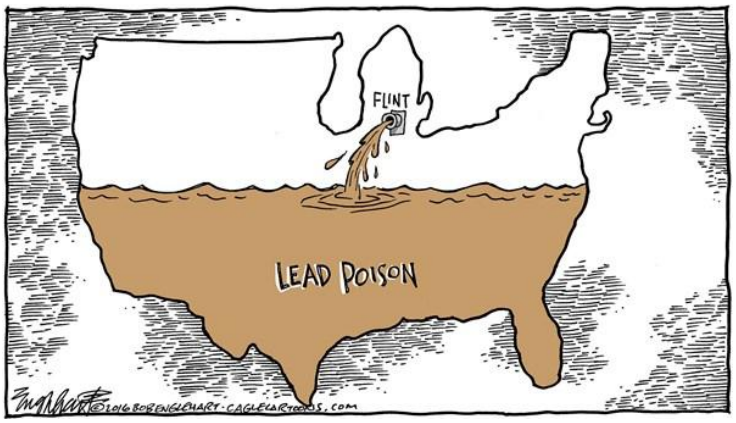
Empfehlung 3: Der Wasserverbrauch im Energiesektor erfordert mehr Transparenz. In vielen Teilen der Welt fehlen Daten zum tatsächlichen Wasserbedarf im Energiesektor. Dies verhindert fundierte Entscheidungen. Sowohl Unternehmen als auch der öffentliche Sektor sollten deshalb ihre Überwachung und Berichterstattung zum Wasserverbrauch deutlich verbessern …
http://www.iass-potsdam.de/sites/default/files/files/2_2016_newsletter_iass_de.pdf
Englisch:
http://www.iass-potsdam.de/sites/default/files/files/2_2016_newsletter_iass_en.pdf

Vereinigte Staaten von Amerika

Letter: Saving water? Stop eating animals
May 14 2016 Proclaiming that water conservation should be "one of Utah's core ethics," the Utah Division of Water Resources recently kicked off a nine-step pledge called "H2Oath." However, even if all nine suggestions were widely adopted, it will barely make a dent in the state's water use because they fail to address the state's biggest waster: agriculture. In fact, because agriculture consumes 82 percent of Utah's water, the goal of a 25 percent reduction in water use is actually a statistical impossibility. The vast majority of the water used for agriculture in Utah is used to produce hay and corn to feed farm animals. The "water footprint" of a beef hamburger is 15 times that of a veggie burger, and peer-reviewed studies have shown that a shift towards a plant-based diet would reduce society's water use by an astonishing 36 percent. This is a much bigger bang for your buck than reducing our "average shower time by one minute." If you care about preserving our precious water resources, you can make the largest impact by going vegan, and the Division of Water Resources should start explicitly stating so.
http://www.sltrib.com/opinion/3884730-155/letter-saving-water-stop-eating-animals

Water: The Other U.S.-Mexico Border Issue
May 13, 2016 … a river is often the clearest delineation between sovereign nations. But that clarity abruptly ends when countries must decide how to use the water that the river provides. … The Rio Grande, which partly establishes the U.S.-Mexico border, is no exception. It has been and will continue to be vital to economic growth in the region, especially in Mexico, where the river and its tributaries are crucial to supporting new opportunities for manufacturing and energy. But growing demands and environmental pressures will increase tension over water resources in the coming decades. Unlike the waters of the Colorado River, which originate entirely in the United States, the watershed of the Rio Grande is more evenly split between the United States and Mexico. Although Mexico depends on the water resources far more than the United States does, both nations are vulnerable to increasing water stress, making it difficult for them to meet anticipated water treaty obligations … Yet the cooperation between the United States and Mexico over the river systems of the Colorado and the Rio Grande (or Rio Bravo, as it is known in Mexico) is in some ways exceptional by international standards. Treaties signed in the first half of the 20th century clearly dictate the volumes of flow guaranteed to each country, and those agreements have successfully forestalled many past disputes … It was not until the late 19th century that legal disputes over the use of the Rio Grande began. At the time, U.S. courts determined that the country had no legal obligation to deliver any water downstream. A 1906 case, however, determined that roughly 74 million cubic meters per year would be delivered to Mexico from the northwestern parts of the river but stipulated that the amount could be reduced in drought years. There were reductions in roughly a third of the years between 1939 and 2015. In fact, Mexico has not received the full allotment since 2012, and as little as 6 percent of the full amount was delivered in 2013 … In addition to the two countries' shared surface water, Mexico and the United States share about 20 underground aquifers. Though these resources support the populations and economies of the border region, unlike surface water, no international treaty governs their use. Much like surface water, however, there is significant overexploitation and a decline in water quality. Consistent overuse ultimately threatens the viability of the aquifer systems. When these agreements were signed in the early 20th century, less was known about the hydrology of the region … All of these factors contribute to current estimates that upper portions of the river will decrease by as much as a third by the end of this century, and lower portions will accumulate a deficit of more than 830

million cubic meters per year. The gap between supply and demand will grow, as will tension along the border. The treaties, signed decades ago, have been sufficient and their terms largely met until now. But overuse of water resources and environmental stress continue to rise, and basin conditions are poised to prevent amiable management of the water system in the long term. Efforts from both the private sector and governments will instead likely focus on implementing technological adaptations, including waterless hydraulic fracturing and water recycling, to mitigate water stress. Nevertheless, dwindling water supplies could hamper manufacturing growth and energy production in the basin, especially for Mexico. Moreover, Mexico's likely failure to meet delivery quotas will only ramp up tensions with the United States in the coming decades.
https://www.stratfor.com/sample/analysis/water-other-us-mexico-border-issue
May 13, 2016 **Video: Sharing Water Along the U.S.-Mexico Border**
https://www.stratfor.com/video/conversation-sharing-water-along-us-mexico-border

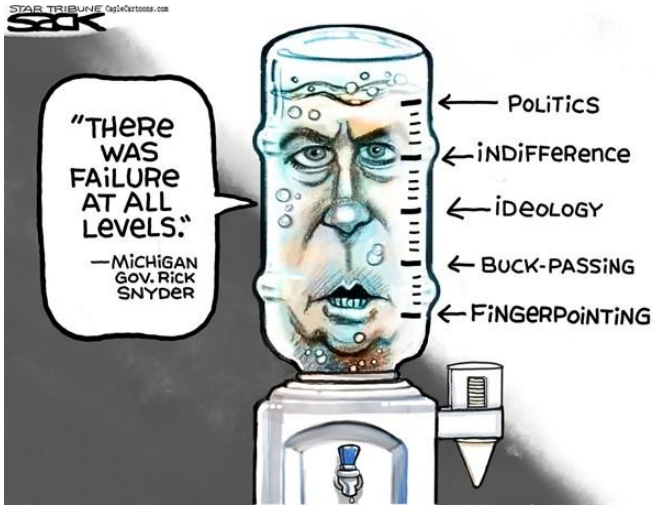


160304 Engelhart Poisoned America

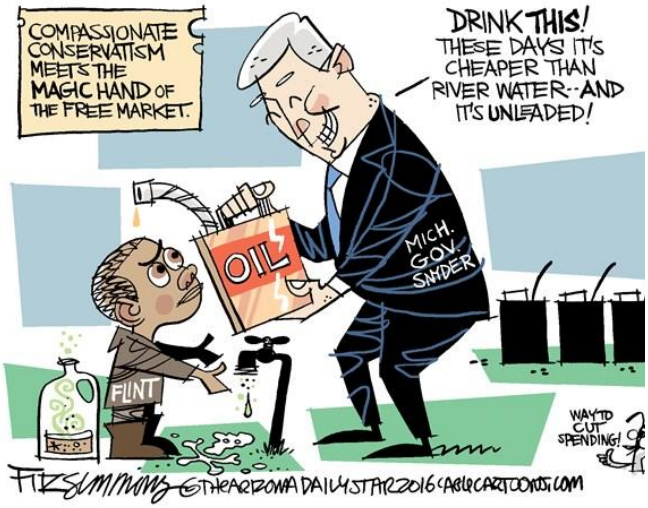
Clean water crisis threatens US
04/25/16 … The United States is on the verge of a national crisis that could mean the end of clean, cheap water. Hundreds of cities and towns are at risk of sudden and severe shortages, either because available water is not safe to drink or because there simply isn't enough of it. The situation has grown so dire the U.S. Office of the Director of National Intelligence now ranks water scarcity as a major threat to national security alongside terrorism. The problem is being felt most acutely in the West, where drought conditions and increased water use have helped turn lush agricultural areas to dust … Perhaps the single biggest threat to the water supply … is the nation's aging infrastructure … "It's a huge problem nationwide," said Erik Olson, director of the health and environment program at the Natural Resources Defense Council (NRDC). "A lot of [the water infrastructure is] now 100 years old or more. We haven't been taking care of it." "Flint is just one example, but there are literally thousands of systems across the country that are having serious compliance problems, serious lead problems" … While the drought conditions in California have received the lion's share of media attention, the problem is widespread. In 2014, water managers in 40 out of 50 states said they expected a water shortage that year … A study last year by NASA asserted that climate change could increase the risk of decades-long "megadroughts" that could make entire regions of the country nearly uninhabitable. The droughts, NASA warned, could last for as long as 35 years … Earlier this year, the White House called for $25 million for desalination research to make the process of turning salt water into drinking water cheaper and more efficient. But many are skeptical that seawater is the answer. In addition to its immense costs and energy requirements, draining the oceans could have disastrous consequences for marine life. One alternative could be reusing wastewater … Federal lawmakers have sought to address the water issue but have made little headway …
http://thehill.com/policy/energy-environment/277269-a-nation-over-troubled-water

Cities Look for New Ways to Meet Demand for Water Supplies
April 24, 2016 … San Diego offers a look at some possible solutions, including a desalination plant, a raised dam and a program to reduce leaks … Many other cities around the world face scarce water supplies amid soaring population growth, including in some of the planet's driest regions. According to the United Nations, about 800 million people don't have access to clean water, and that could jump to 1.8 billion by 2025. Warming temperatures are expected to put more stress on supplies … "Many cities are not keeping up with things the way they are, and climate change will make it worse," says Martin Gambrill, a lead water and sanitation specialist for the World Bank … San Diego's approach shows that cities can cope, but often at a price. In all, water officials in the metro area have overseen more than $2 billion in investments to help wean the city's dependence on water being transported hundreds of miles from Northern California and the Colorado River. That has resulted in the

cost of treated water more than doubling to $1,365 an acre-foot in 2015 from $505 in 1990, according to the county water authority. Those costs have been passed along to users in the form of higher rates … Water officials in San Diego and elsewhere say there is no one way cities are likely to resolve their future water challenges. "We don't see silver bullets as the answer to water reliability," Ms. Stapleton says. "We see it as a multifaceted approach." http://www.wsj.com/articles/cities-look-for-new-ways-to-meet-demand-for-water-supplies-1461550181



160321 Sack Flint Water



160202 Fritzsimmons Clean Water

America's water crisis is way bigger than Flint
Apr 20, 2016 Most municipalities in the U.S. have more in common with Flint than you'd think. Flint, of course, brought the danger of lead-poisoned water to the fore, yet that crisis represents only the tip of an iceberg that is the eastern Michigan city's — and the rest of America's — water worries … "what we're learning is, frankly, [that] the system of laws [has] failed us miserably … Yes, people should be concerned — there's no doubt about it" … http://www.marketwatch.com/story/americas-water-crisis-is-way-bigger-than-flint-2016-04-13
Siehe auch:
24 Mar 2016 **America's water crisis goes beyond Flint, Michigan** … http://www.cnbc.com/2016/03/24/americas-water-crisis-goes-beyond-flint-michigan.html
03/21/16 **We can do better on water** … http://thehill.com/opinion/op-ed/273807-we-can-do-better-on-water

Thirsty cities begin to eye water from the Great Lakes
April 16, 2016 Nearly a decade ago, eight governors shook hands on an extraordinary agreement to erect a legal wall around the largest source of fresh water on earth — the Great Lakes. The unusual bipartisan compact, signed by the heads of the states that border the massive basin, aimed to keep the increasingly valuable water right where it is for the 40 million people who rely on it for their jobs, their homes and their vacations … Waukesha, Wis., a suburb of Milwaukee, has asked for the right to pull drinking water from Lake Michigan. In coming weeks or months the current eight governors … will have to make a critical decision on how to share — or not — one fifth of the world's fresh water. The question arises against a backdrop of increasing national conflicts over water and growing concerns about the way pollution and climate change are threatening the world's water supply … http://www.startribune.com/thirsty-cities-begin-to-eye-water-from-the-great-lakes/375953661/
Siehe auch:
May 10, 2016 **Who Gets to Drink From the Great Lakes?** … A city's proposal to divert Lake Michigan water is raising concerns about future water grabs from outlying regions … http://www.theatlantic.com/politics/archive/2016/05/who-gets-to-drink-the-great-lakes/481887/

How Do We Get Our Drinking Water In The U.S.?
April 14, 2016· Before you take a gulp of water, try to mentally trace where that water that just gushed out of your taps has been: How did it go from that weird-tasting raindrop to the clear, odorless water that is sitting in your glass now? … Safe drinking water is a privilege

Americans often take for granted — until a health crisis like the one in Flint, Mich., happens that makes us think about where it comes from and how we get it. Our drinking water comes from lakes, rivers and groundwater. For most Americans, the water then flows from intake points to a treatment plant, a storage tank, and then to our houses through various pipe systems …
http://www.npr.org/2016/04/14/473806134/how-do-we-get-our-drinking-water-in-the-u-s

White House highlights water R&D needs
05 April 2016 … More than 150 US federal, corporate, and nongovernmental organizations have announced new programs and commitments to sustainable water resources management. The 37-page list includes pledges of more than $1 billion in R&D from the private sector over 10 years, with General Electric alone committing to spend $500 million on new water technologies …
http://scitation.aip.org/content/aip/magazine/physicstoday/news/10.1063/PT.5.1069
LISTE:
https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/White_House_Water_Summit_commitments_report_032216_v3_0.pdf

Saudi Company Looks for Water in Drought-Stricken California
Mar 28 2016 Saudi Arabia's largest dairy company will soon be unable to farm alfalfa in its own parched country to feed its 170,000 cows. So it's turning to an unlikely place to grow the water-chugging crop — the drought-stricken American Southwest … Over the last decade, Saudi Arabia and the United Arab Emirates emerged as significant buyers of American hay as their governments moved to curb water use …
http://www.nbcnews.com/business/business-news/saudi-land-purchases-fuel-debate-over-u-s-water-rights-n546591

A surefire strategy to improve water infrastructure in Flint and beyond
March 18, 2016 As Flint's water crisis continues to reverberate nationally, policymakers have turned their attention to the fundamental infrastructure challenges at hand. From Los Angeles to New York, many regions are not only contending with aging, overburdened water facilities—including areas with lead pipes similar to Flint—but are also confronting an enormous backlog of costs, severe financial constraints, and difficulty in coordinating action across thousands of individual community water systems. In the near term, the biggest issue these regions face can often simply come down to identifying where the problems exist … In turn, public, private, and civic leaders frequently need to have better regional measures at their disposal to drive more efficient and equitable infrastructure improvements … While the magnitude and urgency of the nation's water challenges have steered greater interest in a federally led solution, states and localities remain at the forefront; they cover more than three-quarters of all public spending on water infrastructure and will likely need to play a bigger role in years to come through more coordinated leadership, more targeted investments, and increased technological innovation. Having clearer, more consistent metrics can accelerate these efforts and build momentum for future improvements.
http://www.brookings.edu/blogs/the-avenue/posts/2016/03/18-water-infrastructure-flint-kane-broaddus

Water Is Broken. Data Can Fix It.
MARCH 17, 2016 As a nation, we have become disciples of data. We interview 60,000 families a month to determine the unemployment rate, we monitor how much energy we use every seven days, Amazon ranks sales of every book it sells every hour. Then there is water. Water may be the most important item in our lives, our economy and our landscape about which we know the least. We not only don't tabulate our water use every hour or every day, we don't do it every month, or even every year. The official analysis of water use in the United States is done every five years. It takes a tiny team of people four years to collect, tabulate and release the data. In November 2014, the United States Geological Survey issued its most current comprehensive analysis of United States water use — for the year 2010.
http://www.nytimes.com/2016/03/17/opinion/the-water-data-drought.html?_r=0
BEZUGSDOKUMENT: Water Use in the United States
http://water.usgs.gov/watuse/

California brewery making drought friendly craft beer from waste water
March 16, 2016 … Half Moon Bay Brewing Company has been making small batches of its Mavericks Tunnel Vision IPA with recycled waste water—known to environmentalists as gray water. Gray water is treated water that's been used in sinks, showers, dishwashers or washing machines--but not from toilets ... Using NASA water recycling technology that astronaut Scott Kelly employed to treat his pee and sweat during his year aboard the International Space Station, they created gray water IPA. The beer is slightly darker than the same beer made using conventional Bay Area municipal water, but in a blind taste test, people couldn't tell the difference between it and a traditional pint of IPA … The brewery says getting legislation to bring recycled water directly into the drinking water supply would be a big first step.
http://www.foxnews.com/leisure/2016/03/16/california-brewery-making-drought-friendly-craft-beer-from-waste-water/

House Panel Denounces E.P.A. Actions in Flint Crisis
MARCH 15, 2016 The former E.P.A. official who resigned as the Flint water crisis worsened and Flint's former emergency manager defended themselves at a congressional hearing … The hearing was the first time that several prominent figures in the water crisis — Ms. Hedman; Darnell Earley, the state-appointed emergency manager of Flint at the time of the water switch; and Dayne Walling, the city's former mayor — had testified publicly about their roles. The House Committee on Oversight and Government Reform used the hearing to try to answer a question that has endured despite two previous congressional hearings, several investigations and the release of thousands of government emails: why so many levels of government failed to take action for so long, ignoring warning signs, while Flint residents were being exposed to dangerously high levels of lead …
http://www.nytimes.com/2016/03/16/us/flint-water-crisis-congressional-hearing.html?_r=0
Siehe auch:
17 March 2016 **Flint water crisis hearings at Congress reveal failure of US government** …
http://www.theguardian.com/us-news/2016/mar/17/flint-water-crisis-hearings-congress-failure-of-us-government
April 20, 2016 **3 officials are finally facing criminal charges for covering up Flint's water crisis** …
http://www.vox.com/2016/4/20/11467566/flint-water-crisis-charges-criminal

WASSERQUELLEN

Water and insecurity in the Levant
28 April 2016 The Middle East and North Africa (MENA) is the most water-stressed area in the world. In the Levant sub-region, Jordan, Syria, West Bank/Gaza, and Israel are already water scarce while two other countries – Iraq and Lebanon – are 'water stressed'. This water challenge is a major problem for more than simple development reasons – the domestic instability that led into the Syria conflict was partially driven by drought effects, and now the overflow of refugees is placing greater stress on dry neighbours. For a region that is expected to become drier yet due to a changing climate, the potential for further water-driven instability is significant. Responding to this will require more than improved water supplies. It will require integrated responses that address technical, political and security challenges at local and regional levels … The impacts of water scarcity on security, and the impacts of security problems on water management, require joined-up analysis and cooperation across disciplines. This includes integrating water and natural resource issues into the policies, tools and activities that diplomats can use to avert or address crises …
http://www.iss.europa.eu/publications/detail/article/water-and-insecurity-in-the-levant/

Developing the Pardee RAND Food-Energy-Water Security Index
April 28, 2016 More than 2 billion people around the world, especially in developing countries, do not have access to high-quality services related to food, water, and energy. To provide information to development agencies and efforts focused on food, water, and energy resources, the RAND Corporation developed the Pardee RAND Food-Energy-Water Security Index. The index can be accessed online through an interactive RAND website that allows

exploration of the data through maps and charts or downloading of the data for offline analysis. This report serves as the technical documentation for the index … The index provides a standardized, quantitative, and transparent estimation of the nexus between food, energy, and water that can easily be used by policymakers, the development community, scientists, and the public interested in improving human development worldwide …
http://www.rand.org/pubs/tools/TL165.html

United Nations Environment Programme
Options for Decoupling Economic Growth from Water Use and Water Pollution
Global trends point to a relative decoupling of water – that is, the rate of water resource use is increasing at a rate slower than that of economic growth. The Options for Decoupling Economic Growth from Water Use and Water Pollution report provides an independent assessment of technological and policy-relevant tools and approaches that can be used to achieve the decoupling of water resources from economic development while considering environmental and welfare impacts over the full life cycle. To head off a looming water resource crisis, meet global water demand, and sustain economic growth and human wellbeing, global action for decoupling water from economic growth is essential. The report puts forward a package of policy and practical responses based on decoupling strategies to help the forward looking policy-maker in achieving global aspirations for water sustainability …
http://apps.unep.org/publications/index.php?option=com_pub&task=download&file=012014_en
Summary:
http://www.unep.org/resourcepanel/Portals/50244/publications/Options-for-Decoupling-Economic-Growth-from-Water-Use-and-Water-Pollution-Summary-for-Policy-Makers_opt.pdf
Fact sheet:
http://www.unep.org/resourcepanel/Portals/50244/documents/Options-for-Decoupling-Economic-Growth-from-Water-Use-and-Water-Pollution-Factsheet.pdf

UN-Water
Monitoring Water and Sanitation in the 2030 Agenda for Sustainable Development
… there are several global initiatives that are monitoring different aspects of the water and sanitation goal, but a coherent framework is missing. The Integrated Monitoring of Water and Sanitation related SDG targets (GEMI) initiative is being developed in order to integrate and expand existing efforts, to ensure harmonised monitoring of the entire water cycle. GEMI is an inter-agency initiative comprising UNEP, UN-Habitat, UNICEF, FAO, UNESCO, WHO and WMO, operating under the umbrella of UN-Water. Focusing on aspects related to water, wastewater and ecosystem resources, GEMI complements WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) and UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) efforts on drinking water and sanitation. Together, JMP, GEMI and GLAAS will be able to monitor global progress towards the entirety of SDG 6, building on national monitoring efforts …
http://www.unwater.org/gemi/en/
Introduction: http://www.unwater.org/publications/publications-detail/en/c/379864/
Executive briefing:
http://www.unwater.org/fileadmin/user_upload/unwater_new/docs/Monitoring%20Water%20and%20Sanitation%20in%20the%202030%20Agenda%20-%20An%20executive%20briefing_v2016-04-06%20-%20final%20unedited.pdf

Water Shortage May Cripple Global Power Supply
March 18, 2016 Nearly all the power produced around the world depends on steady water supplies, which are imperiled by overuse and a changing climate … If the world wants to keep the lights on, leaders must tackle threats to global water supply … Based on last year's U.N. projections of a 40 percent global shortfall of water availability by 2030, the report focuses on water's crucial role in power generation. After agriculture, energy consumes the second largest amount of fresh water, and 98 percent of power produced requires water … As water-stressed areas see population growth and more economic activity, their risks of not delivering enough energy and food also increase. Changes to climate and shifting rainfall patterns heighten that uncertainty …
http://www.scientificamerican.com/article/water-shortage-may-cripple-global-power-supply/

BEZUGSDOKUMENT: The road to resilience – managing the risks of the energy-water-food nexus

… managing the risks of the energy-water-food nexus' is the second risk dimension investigated as part of the Financing Resilient Energy Infrastructure initiative. The first report in the series, 'The road to resilience – managing and financing extreme weather risk', recommended moving towards a more systemic understanding of resilience … https://www.worldenergy.org/publications/2016/the-road-to-resilience-managing-the-risks-of-the-energy-water-food-nexus/

Water for All: Striving Together

http://www.indiawaterweek.in/index.aspx

Downloads: http://www.indiawaterweek.in/download.aspx

[… *Präsentationen "nur" schöne Bilder … die Newsletter sind eine brauchbare Zusammenfassung von Konferenz-inhalten* J.B.]

April 4 – 8, 2016, New Delhi

Newsletter 4th April 2016

… India and Israel are set for wider cooperation in the areas of water conservation and management, with Israel's Agriculture Minister Uri Ariel leading a high-level delegation of experts and Government officials for the India Water Week. Israel has offered its technical expertise and experience in managing water resources and is keen to expand bilateral relations with India beyond agriculture and defence …This partnership evolved into the Indo-Israel Agricultural Project (IIAP), aimed at benefiting the local farmer by Increasing crop diversity, productivity & resources use efficiency … Israel is also willing to collaborate with India on several of its flagship schemes like the mega irrigation scheme, Swacch Bharat Mission, Smart City Mission, AMRUT programme and the Clean Ganga project …

Newsletter 5th April 2016

… Union Minister of State for Water Resources, River Development and Ganga Rejuvenation Sanwar Lal Jat warned of grave times ahead in India if the available water resources were not managed properly. "People should help out the Government in this regard … Now water shortage is gaining ground in the country" … urging all stakeholders to help in the Government's initiatives to have more agriculture from less water and river-interlinking projects, which will help in diverting surplus water to deficient areas of various states … Water use and environment appears to be in conflict even though both are made for each other … increasing demand for water due to urbanisation, population growth, industrialisation, food security challenges and modern life style, the Government of India has initiated number of steps and drafted legislations, but despite policy initiatives, Constitutional, legal and administrative enactments, the problem of implementation and enforcement persists … The implementation of the law requires a totally different set of policy contexts. Water law in India is an assemblage of various formal and informal components from the colonial to the present status, and it lacks uniformity and formal, integrated framework. Therefore, it represents a great challenge to implement policy for a vast country like India …

WATERWISE

Warka Water - Jeder Tropfen zählt: Wasser aus der Luft ernten

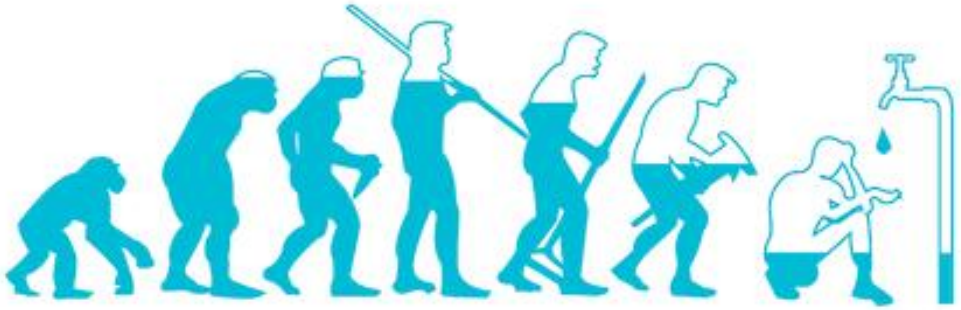
05.04.2016 Warka Water heißen die Türme aus Netzen, die auf drei Arten Wasser aus der Luft ernten: Sie sammeln Regenwasser, fangen Nebeltropfen ein und ernten Tauwasser. Benannt ist der Turm nach einem äthiopischen Feigenbaum. Er soll in Ländern wie Äthiopien die Versorgung mit Trinkwasser verbessern … http://www.ingenieur.de/Fachbereiche/Verfahrenstechnik/Jeder-Tropfen-zaehlt-Wasser-Luft-ernten

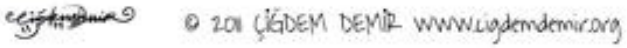
Blessing of clean water emphasizes importance of resource to Peoria and nation

Apr 17, 2016 … The 23rd annual Sun Foundation Clean Water Celebration began with a traditional Native American blessing ceremony … "Peoria was founded by Native Americans because of its many water sources …This ceremony is to show how important water is not just for our present and future, but also the past" … http://www.pjstar.com/article/20160417/NEWS/160419471

Inter-American Foundation
VIDEOS: **Initiatives in Action - Water Use and Conservation**
Our Partners from a Community organization in Colombia and Guakia Ambiente in Dominican Republic have been working for several years with the communities supporting them with their initiatives using water for agricultural production and electricity generation. They are learning not only how to use the resource but also how to protect their water sources …
http://www.iaf.gov/resources/videos/initiatives-in-action-water-use
Danke für diesen Hinweis aus Berlin-Mitte J.B.

WASSERKUNST



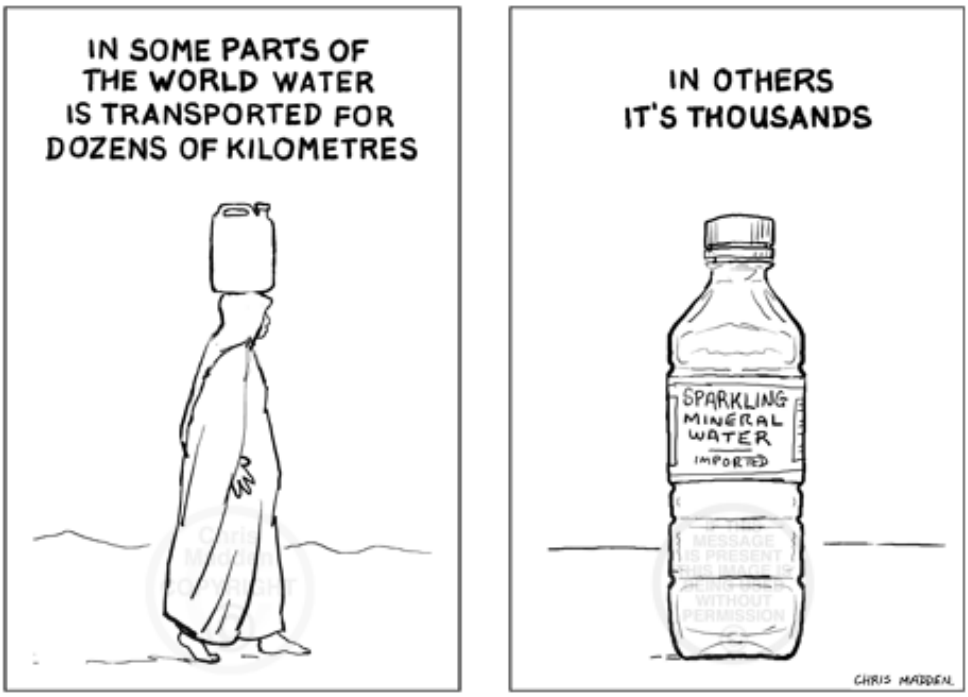


CIGDEM DEMIR: We depleting water, October 31, 2011

Video: **Water - Die geheime Macht des Wassers**
07.10.2014 … Zum ersten Mal … haben nun führende Wissenschaftler, Schriftsteller und Philosophen versucht, das Geheimnis des Wassers zu entschlüsseln. In zahlreichen Experimenten wurde auf beeindruckende Weise aufgezeigt, wie Umwelteinflüsse prägende Spuren im Wasser hinterlassen …
https://www.youtube.com/watch?v=Q_Osih3pGgk

Lissabons Weg in eine moderne Wassergesellschaft. Meine Reise durch Stadt und Geschichte.
17. April 2016 Die Geschichte einer Stadt ist immer auch die Geschichte des Wassers. Sicher kann man Stadtentwicklung anders erfahren als sich Wasserspeicher, Aquädukte und Wassermuseen anzuschauen, aber es macht gerade den Reiz aus diese Perspektive zu wählen, denn Wasser ist Kultur und darum geht es ja auch bei einem Städtetripp … statt eines der vielen Museen zu besuchen, die die 530.000 Einwohner-Stadt am Tejo zu bieten hat, wählte ich das Wassermuseum. Das Museu da Água …
http://www.lebensraumwasser.com/2016/04/17/lissabons-weg-in-eine-moderne-wassergesellschaft-eine-reise-durch-stadt-und-geschichte/

… dann war da noch:



CHRIS MADDEN: carrying water-bottled water

Obama trinkt Wasser in der von Blei verseuchten US-Stadt Flint

04/05 23:58 CET | updated at 05/05 - 06:52

http://de.euronews.com/2016/05/04/obama-trinkt-wasser-in-der-von-blei-verseuchten-us-stadt-flint/

Jörg Barandat
editorial@waternews.de

Info: Zusammenfassungen der WATERINTAKE-Newsletter sind abgelegt in: >WASSER: Ressource - Risiken – Chancen<:
https://www.xing.com/net/libinter/wasser-ressource-risiken-chancen-by-joerg-barandat-22145/

Der aktuelle >**W A T E R I N T A K E**< wird jeweils im Massenbach-Letter geposted:
http://udovonmassenbach.wordpress.com/
… der letzte > 1/2016 < vom 16.03.2016
https://udovonmassenbach.wordpress.com/2016/03/18/joerg-barandat-waterintake-12016/
pdf:
https://udovonmassenbach.files.wordpress.com/2016/03/160317-waterintake-01_2016.pdf