

30.05.2010: Impact of climate change was underestimated says Arab report on climate change [1]

According to e Najib Saab, speaking at the annual meeting of the Arab Forum for Environment and Development (AFED) held in Kuwait, the actual level of ice melting and the sea level rise is higher than predicted. Saab presented the AFED report on the impact of climate change on Arab countries.

Saab deplors the lack of serious plans to confront dwindling water resources and rising sea levels, and their impact on food productivity and biodiversity in the region. The Arab world will reach a "red line" of water poverty much before 2025.

The rising sea level will have its impact in the region, because the majority of Arab nations live near the sea. A sea level rise of only one meter would directly impact 41,500 square kilometers of Arab coastlands and 3.2% of the population of Arab countries, compared to a global percentage of about 1.28%. Human health will be adversely affected by higher temperatures, incidence of infectious diseases like malaria and schistosomiasis will increase, along with fiercer and more frequent sand storms, which will increase allergic reactions and pulmonary diseases all over the region, especially in the Gulf countries. [2]

Al-Awadhi, a former minister, calls for planning of the ecological footprint of any future project. To avoid catastrophic outcomes. Current Minister of Commerce and Trade Ahmad Al-Haroun emphasized the private sector's important role in addressing climate challenges in environmental investment required to secure a safe and clean environment for future generations

The report also addressed the tourism which is an important sector of the economy for a number of Arab countries. Effects of temperature increase of between 1-4 degrees Celsius in average temperature increase bleaching of coral reefs affecting tourism in countries in the Red Sea basin, mainly Egypt and Jordan. Erosion and sea level rise will affect coastal tourist destinations in Egypt, Tunisia, Morocco, Syria, Jordan and Lebanon.

Recommendations of AFED conference on Climate Change [3]

The report recommends that the Arab countries establish a technical council to provide climate change assessments; ensure that development plans take fully into account the impacts of climate change, and formulate a clear Arab position on international climate change negotiations to reach an effective agreement to avoid critical levels of greenhouse gases.

[1] Climate change far worse than expected: Expert. Kuwait Times, May 30, 2010 By Ahmad Saeid, Staff Writer .
http://www.kuwaittimes.net/read_news.php?newsid=Mjc5NTE4NDk4

[2] AFED presents its programs in Kuwait. 27 May 2010.
<http://www.afedonline.org/en/inner.aspx?contentID=517>

[3] Recommendations of AFED conference on Climate Change: Arab Forum for Environment and Development (AFED) 2009 Annual Conference: Impact of Climate Change on Arab Countries. Recommendations.
<http://www.afedonline.org/en/inner.aspx?contentID=437>

30.05.2010: Rising airborne pollution in Kuwait [1]

According to Dr. Suad Al-Rushaid, the Deputy Director General of the Environment Public Authority, also asserted that all Kuwait's residents are suffering from pollution problems as a result of heavy traffic congestion and increasing numbers of sandstorms are contributing to a rise in airborne pollution in Kuwait, with 2008 seeing 156 extremely dusty days.

Dr. Al-Rushaid another pollution example is the area surrounding Ahmad Al-Jaber where excavation to depths of more than 20 meters had led to an escape of hydrogen sulfide gas from raw liquid sewage, which is harmful to breathe.

[1] Dusty weather increasing pollution. Kuwait Times 29.05.2010
http://www.kuwaittimes.net/read_news.php?newsid=MTMyOTI2MDM2NQ==

30.05.2010: Electric car is uses dirty coal electricity [1]

The Mountaineer power plant in New Haven, W.Va., is an example of dirty electricity. The power plant consumes nearly 14,000 kilograms of coal a minute, enabling the plant to pump out 1,300 megawatts of power.

[1] A Spin on Efficiency: Generating Tomorrow's Electricity from Better Turbines. Scientific American. 10.05.2010.
<http://www.scientificamerican.com/article.cfm?id=a-spin-on-efficiency-with-better-turbines>

27.05.2010: USA lacks political will to decarbonize energy economy, say two leading articles of Environmental Science and Technology Journal.

Kharecha and colleagues 2010 say that the global climate change problem becomes manageable only if society deals quickly with emissions of carbon dioxide from burning coal in electric power plants. The authors support the elimination of subsidies for fossil fuels; putting rising prices on carbon emissions; major improvements in electricity transmission and the energy efficiency of homes, commercial buildings, and appliances; replacing coal power with biomass, geothermal, wind, solar, nuclear power; and carbon capture and storage at remaining coal plants. [1]

Betts 2010, commenting the article of Kharecha and colleagues , says that coal is the number one technology that must be

decarbonized. Fifty percent of US electricity generation is from coal, resulting in the bulk of electricity emissions. It is possible to decarbonize the energy, however the political will is missing to end fossil fuel subsidies and levy a substantial fee on carbon emissions. [2]

Electric car in China and USA are the worst polluter: The German Automobile Club (ADAC) says that a Smart running on Diesel fuel emits 86 g CO₂/km. An electric Smart using electricity from coal power plants 107 grams of CO₂ emissions in China and 71g in Germany. [3]

The conclusions of both articles are a direct accusation of the President Obama und his Secretary Steven Chu which are not willing, for whatever reasons, to change to solar energy, wind turbines and hydrogen technology as fuel for transportation and energy storage.

[1] Kharecha PA, Kutscher CF, Hansen JE, Mazria E: Options for Near-Term Phaseout of CO₂ Emissions from Coal Use in the United States. Environ Sci Technol. 2010 Apr 30. 2010; Doi: 10.1021/es903884a
<http://pubs.acs.org/doi/abs/10.1021/es903884a>

[2] Betts K: Can the U.S. phase out coal's greenhouse gas emissions by 2030? Environmental Science & Technology, 2010, 44 (11), pp 4035–4036. Doi: 10.1021/es101320m
<http://pubs.acs.org/doi/full/10.1021/es101320m>

[3] The Great E-llusion, Germany to Promote Electric Cars with Massive State Aid.
<http://www.spiegel.de/international/business/0,1518,691457,00.html>

26.05.2010: Chaotic energy politics of USA poisons ocean food chain

The spill of the Deepwater Horizon oil rig threatens the biology of the Atlantic Ocean. To reduce the oil at the surface chemical dispersants are used in enormous quantities. [1] The dispersed oil will travel all over the Atlantic, driven by the Gulf Stream which splits in the north and south stream. This is the price for the obstinacy of politicians handling energy matters, clearly demonstrated at Copenhagen climate conference.

Obama and his Secretary of Energy Steven Cu are to be blamed for a ruthless exploitative energy politics. Obama cancelled the Hydrogen Initiative of President Bush. [2] Obama sets on more offshore drilling, gas, coal and nuclear energy.

USA is one of the leading polluters. Obama failed to follow a strict focus on decarbonising the energy politics. Solar energy, wind turbines and hydrogen economy was presented to obama and Chu, but was rejected by both. They failed to work for a future of cleaner, more abundant domestic supplies of energy. [3] Electric cars bio fuel and other exotic ideas are eyewash to distract people's view while keeping the status quo unaltered. A new orientation to a global clean energy using hydrogen as fuel for transportation and energy storage is stringent needed.

[1] Oil dispersants an environmental 'crapshoot': Chemicals used on Gulf spill carry unknown risks, scientists say. Msnbc May 24, 2010.
http://www.msnbc.msn.com/id/37282611/ns/gulf_oil_spill//

[2] The White House: Council on Environmental Quality: CEQ Advances President's Hydrogen Initiative with hydrogen Fuel Cell Car.
http://georgewbush-whitehouse.archives.gov/ceq/hydrogen_090908.html

[3] The Global Hydrogen Initiative
http://www.desertenergyproject.net/Global_Initiative.pdf

20.05.2010: Lufthansa Airline plans to add vegetable oil to kerosene to reduce costs [1]

The German Airline Lufthansa tries to introduce 5 to 10 per cent of biofuel to power its aircraft fleet. The airline announced tests for the next two years and says that jatropa oil or algae oil may be used in the future to avoid rape oil and soy oil which compete with food crops.

The EU Emission Trading System legislation (e.g. 2008/101/EC [2] and 2009/339/EC [3]) will include the Airlines with start in 2012. Lufthansa intends to reduce the costs of their emission of 24 millions Tons of CO₂ using vegetable oil.

How much is needed?

The kerosene demand of 2009 for the Lufthansa fleet was 7.7 million tons. To achieve its goal, the company needs 385.000 to 770.000 Tons/year of vegetable oil. To respond to the demands of Lufthansa a jatropa plantation is needed measuring 51.5 kilometres by 51.5 kilometres in size when 5 percent of jatropa are added to the kerosene, the addition of 10 percent requires a plantation of 72.8 kilometres by 72.8 kilometres in size. [4]

jatropa: The oil plant needs 20.000 litres of water for the production of 1 litre oil. jatropa gives attractive yields only on good soils. It seems prohibitive to use this plant as water scarcity will be the most stringent problem of the next decades. One hectare of jatropa produces 7 Tons seeds/year. 4 Kg seeds of jatropa produce one litre biodiesel. [5]

Alternative: Reducing the number of flights could improve the load factor and reduce the number of empty seats. Passengers should consider the necessity of their voyage and avoid air travel on vacation, leisure and shopping tours. Liquid hydrogen should be

considered as future aircraft fuel.

[1] Stop Lufthansa's Agrofuel Plans. Rain Forest Rescue.org
<http://www.rainforest-rescue.org/protostaktion.php?id=584>

[2] Directive 2008/101/EC of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community.
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:008:0003:0021:EN:PDF>

[3] 2009/339/EC: Commission Decision of 16 April 2009 amending Decision 2007/589/EC as regards the inclusion of monitoring and reporting guidelines for emissions and tonne-kilometre data from aviation activities. 2009/339/EC.
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:103:0010:0029:EN:PDF>

[4] Wikipedia: Jatropha oil
http://en.wikipedia.org/wiki/Jatropha_oil

[5] Jatropha For Biodiesel Figures. Look at the financial costs of commercial Jatropha growing for Biodiesel
<http://www.reuk.co.uk/Jatropha-for-Biodiesel-Figures.htm>

19.05.2010: Dams and irrigation projects will reduce Nile flow [1]

Dam projects are planned by Nile upstream countries suffering from power shortage. These countries signed an agreement on the use of the Nile's water. Egypt, however, is afraid that the 460 megawatts Beles Dam built by Ethiopia, reduces the flow of water. Nearly 85 percent of the Nile's waters originate in Ethiopia. The new commission would ostensibly have the power to veto energy and irrigation projects in signatory states. Egypt, desperately dependent on the Nile, claims that the Nile river agreement lacks legitimacy. Egypt will exert pressure on donors for support of the project: The African Development Bank, the Danish Development Agency, Netherlands, Germany, FAOI and the World Bank.

Egypt calls on its rights to block dams and other projects upstream on the Nile, based on historic water sharing arrangements under a 1929 pact between Egypt and Britain, and in 1959 with Sudan. According to Egypt's Water Resources and Irrigation Minister Mohamed Nasreddin Allam, any project that reduces the river's flow has to be approved by Egypt and Sudan. [2]

Nile River Basin Commission [3]

Tanzania, Uganda, Rwanda and Ethiopia created a permanent commission to manage the Nile's waters. Kenya, Burundi and Democratic Republic of Congo will also join the commission. Egypt and Sudan did not sign the framework. The new commission will be empowered to veto energy and irrigation projects in signatory states.

The Nile discharges about 300 million cubic metres of water daily (109.5 billion cubic meters/y) and provides Egypt. Egypt says to have to have no objections to dams upstream as long as the country's share of 55.5 billion cubic meters was not reduced. The river's flow will however decline as a result of the irrigation projects of the upstream countries.

Solar energy, wind turbines and hydrogen technology is a solution for the energy shortage of the region.

[1] Egypt asserts right to block Nile dams. Kuwait Times, May 19, 2010.
http://www.kuwaittimes.net/read_news.php?newsid=MjA5NjU0OTY1

[2] Dispute over Nile could polarize the region – ICG. ethiopianreview.com May 19, 2010.
<http://www.ethiopianreview.com/articles/32079>

[3] Nile Basin Initiative (NBI)
<http://www.icp-confluence-sadc.org/rbo/61>

09.05.2010: Impact of Crude Oil on Seafood, the Horizon oil spill [1]

According to the National Oceanic and Atmospheric Administration (NOAA) crude oil has the potential to taint seafood with flavours and odours imparted by exposure to hydrocarbon chemicals. The U.S. Food and Drug monitors the oil contamination of seafood. The agency says the public should not be concerned about the safety of seafood they are buying at this time.

NOAA conducts a combination of both sensory analysis (of tissue) and chemical analysis (of water, sediment, and tissue) to determine if seafood is safe following an oil spill. The results will be made public as soon as possible. This inspection program is based on lessons learned from major oil spills such as the 1989 Exxon Valdez spill in Alaska; 1996 spill in Rhode Island; 1999 spill in Coos Bay, Oregon; and, several spills in San Francisco including the most recent in 2007.

Meanwhile all commercial fishing is prohibited in waters in front of Louisiana. Oil has reached the islands in front of the mainland. The marshland of the Mississippi delta is endangered. [2]

Ocean Studies Board (OSB) rises doubts on the use of dispersants to fight the Horizon oil spill [3]

The Ocean Studies Board (OSB) in 2005 cited possible harms to the environment when oil dispersants are used. Fishes corals, shrimps, oysters and other marine life may be poisoned by the chemicals and the toxic components of the dispersed oil. The use of dispersants reduces the threat posed to marine mammals and birds that frequent the air-water interface where oil slicks form. The

dispersed oil plume affects other portions of the ecosystem, such as the fish and the fauna in water column and on the seafloor. Dispersants may also affect the water-repellent layer of the feathers of seabirds.

Dispersants are chemical agents such as surfactants, solvents, and other compounds that reduce interfacial tension between oil and water in order to enhance the natural process of dispersion by generating larger numbers of small droplets of oil which spread in all directions. Oil spill dispersants do not reduce the total amount of oil entering the environment.

The oil spill dispersant Corexit 9500 used at the Horizon spill [4]

The Corexit oil spill dispersant is biodegradable, has low toxicity and enhanced penetration of the surfactants and helps to counter the “mousse” forming tendencies of the spilled. Its ingredients are distillates, petroleum, hydrotreated light 30%, Propylene Glycol 5% Organic sulfonic acid salt 30%. Sulfonic acids and their salts (sulfonates) are used extensively in such diverse products like detergents. [5]

Hydrogen economy to phase out carbon fuel

A strategy to decarbonise the fuel economy is most important for a sustainable future. Solar energy and wind turbines, together with hydrogen technology is the solution for the environmental harm which is done by exploiting oil, gas, coal and uranium mines.

[1] NOAA Fishery Service: Impact of Crude Oil on Seafood.

http://www.deepwaterhorizonresponse.com/posted/2931/Seafood_safety_FACT_SHEET.542647.pdf

[2] Kampf gegen Oelpest: Umstrittene Chemikalien. Spiegel Online 08.05.2010

<http://www.spiegel.de/fotostrecke/fotostrecke-54635-2.html>

[3] Oil Spill Dispersants, Efficacy and Effects: Committee on Understanding Oil Spill Dispersants: Efficacy and Effects. Ocean Studies Board. Division on Earth and Life Studies. National Research Council of the National Academies.

http://www.nap.edu/openbook.php?record_id=11283&page=1

[4] Corexit 9500(EC9500A) Oil Spill Dispersant. Nalco Energy Services. Product Bulletin PB-EC9500A

http://www.cleancaribbean.org/docs/9500A%20Product%20Sheet_01_06.pdf

[5] Corexit 9500, NALCO Material Data Sheet

http://www.deepwaterhorizonresponse.com/posted/2931/COREXIT_9500_UsCuEg.539287.pdf

04.05.2010: The Deepwater Horizon disaster is a lesson for the future [1]

Obama and the US secretary of energy Steven Chu follow a strategy which supports the oil, coal, gas and nuclear energy. The mix of the three most dangerous fossil fuels, together with nuclear facilities generating radiating waste for millions of years, undermine the subsistence of future generations.

The President and his administration follows the politics of industrial and financial world supremacy. To keep the machinery going enormous quantities of energy are needed. Obama held a speech in March lifting the moratorium on off-shore drilling calling for increased oil drilling on America's East Coast and in the Gulf. It is denotable that the speech was not held at a university or any scientific forum. He spoke at the centre of the power, the Andrews Airforce Base in Maryland.

Who has to pay for it?

Consuming carbon based energy leaves behind carbon dioxide accumulating for centuries and acidifying water resources and marine environment. Nobody pays for its disposal. Nobody pays for a safe disposal of nuclear waste from power plants for million of years. Germany's repository in Asse already demonstrated the safety failure of the repositories. The consumer does not pay for the cleanup.

Costs of the Horizon oil spill

Obama says BP pays for the oil spill of the oil rig Deepwater Horizon. This calms people and is good for public image. Anyhow, the costs of technical assistance will have to be paid by the insurance companies, mainly the Munich Ruck, which resold most of the papers on the insurance market. The costs will therefore have effect on life insurance and other products of the market.

Fire in Conoco Phillips refinery in Germany was caused by cost reduction strategy [2]

According to the Nordwest Zeitung a fire at the distillation column of the refinery of Wilhelmshaven in 02.05.2010, took several hours to be extinguished. The refinery is run by the Conoco Phillips Corporation, Houton/Texas. The corporation had ordered a stand still of the distillation column for six month following a cost reduction strategy. After restarting the plant was leaking and fuel ignited.

According to the Nordwest Zeitung a fire at the distillation column of the refinery of Wilhelmshaven in 02.05.2010, took several hours to be extinguished. The damage of the system was heavy.

The refinery is run by the Conoco Phillips Corporation, Houton/Texas. The corporation had ordered a stand still of the distillation column for six month following a cost reduction strategy. After restarting the plant was leaking and fuel ignited.



Picture source: Florian Siebenmarck

The former executive director of the Conoco Phillips refinery, Johan Anton van Veelden rises doubt about the safety of the refinery. He says that it must be cleared that the necessary pressure checks were performed. Such tests are necessary after a prolonged stop of the system. The oil industry expert says that the compound should never have been closed during Winter. Freezing temperatures may cause substantial damages on the equipment.

Cost reduction strategies are compromising the safety of the oil industry. Conoco Phillips is such an example.

The President's hydrogen fuel initiative [3]

President Bush announced a \$1.2 billion hydrogen fuel initiative to reverse America's growing dependence on foreign oil by developing the technology for commercially viable hydrogen-powered fuel cells to power cars, trucks, homes and businesses with no pollution or greenhouse gases. The hydrogen fuel initiative will make it practical and cost-effective for large numbers of Americans to choose to use clean, hydrogen fuel cell vehicles by 2020. This will dramatically improve America's energy security by significantly reducing the need for imported oil, as well as help clean our air and reduce greenhouse gas emissions.

Obama stopped the Hydrogen Fuel Initiative of George W. Bush and supported coal, oil and nuclear power. Obama and Steven Chu missed the chance to change the energy economy to the use of environmentally friendly hydrogen, solar and wind energy. They used the cheapest way, which will lead to a catastrophic future such as seen at the blow out of Deepwater Horizon. Cost reductions will mutate in enormous cost which the taxpayers have to pay.

Changing political strategy of Germany [4]

In Bonn Petersberg, Germany delegates of 47 nations met three days between 2 and 3 of May 2010. They came together to prepare the next meeting in Cancun, Mexico late this year.

This meeting is also dominated by the same lack of a consistent plan for a sustainable future found in the energy industry. According to the magazine Spiegel Chancellor Merkel gave up to pursue a global limit for greenhouse gases and the 2 degree target. Together with her environmental minister Norbert Roettgen more concrete goals will be followed, such forest protection and transfer of sustainable technology for developing countries. Merkel presented these ideas in here inauguration speech at the conference at Petersberg.

Scientists are failing to present a consistent plan how to proceed for the next centuries. Their organisations are undermined by the energy corporations which do everything to maintain their Status Quo and low costs. Such a consistent plan could be the use of hydrogen as described in "[The Global Hydrogen Initiative](#)".

A lesson for the future [5]

The German newspaper Sueddeutsche Zeitung sees the disaster of the Deepwater Horizon as a lesson for the future saying that our energy supplies must be decentralized, the facilities must be smaller and the industry must be more flexible and more environmentally friendly.

Solar energy, wind power and hydrogen, as described in "[The Global Hydrogen Initiative](#)" meet all the requirements of the lesson derived from the disaster of the Horizon. Photovoltaic arrays and wind generators are decentralized, the facilities are small, flexible and environmentally friendly.

[1] The World From Berlin: 'The Oil Catastrophe Will Be BP's Katrina, Not Obama's'. Spiegel Online 3 May 2010.
<http://www.spiegel.de/international/0,1518,692677,00.html>

[2] Kritik nach Raffinerie-Brand in Wilhelmshaven: Ex-Geschäftsführer fragt nach Sicherheitskontrollen. NWZ Online 3 May 2010.
<http://www.nwzonline.de/Region/Artikel/2326887/Kritik+nach+Raffinerie-Brand+in+Wilhelmshaven.html>

[3] Fact Sheet: Hydrogen Fuel: a Clean and Secure Energy Future. The White House. February 6, 2003.
<http://georgewebush-whitehouse.archives.gov/news/releases/2003/02/20030206-2.html>

[4] Merkel rückt von Weltklimavertrag ab. Spiegel Online 24 April 2010.
<http://www.spiegel.de/spiegel/vorab/0,1518,691013,00.html>

[5] Grenze des Machbaren. Sueddeutsche Zeitung 3 May 2010
<http://www.sueddeutsche.de/wissen/973/510097/text/>

30.04.2010: The electric cars increase emission of greenhouse gases in China, say experts [1]

The German Automobile Club (ADAC) says that a Smart running on Diesel fuel emits 86 g CO₂/km. An electric Smart using electricity from coal power plants 107 grams of CO₂ emissions in China and 71g in Germany.

According to a study by Deutsche Bank, about 5 million electric cars could be registered in the European Union in 2020, which would still only amount to 2 percent of all cars. Very high costs of the battery and low range makes the electric car not interesting for general use.

Securing a position in the government's circle of advisers is hat top priority among the industry and also among scientists.

A fight between E.on and Siemens in the claim of a leading position, could only be ended by Chancellor Merkel creating two positions, so both can be seen on her side during talks concerning government aids to the electric car on 5 May 2010

[1] The Great E-llusion, Germany to Promote Electric Cars with Massive State Aid.
<http://www.spiegel.de/international/business/0,1518,691457,00.html>

14.04.2010: Increasing demand of water and electricity, sea level rise and depletion of agricultural land in Arab region, says report [1]

The commission of Arab Environment Ministers and the Arab League asked a number of scientific centers in various Arab countries to carry out an assessment on the environment and future expectations. The Kuwaiti Greenline Environmental Group (GEG) based in Kuwait will publish the report this month.

Thari Al-Ajmi of the Kuwait Institute for Scientific Research (KISR) made a short summary of the outcomes of the report. He says that the Arab world's carbon dioxide emissions represent only 4.7 percent of global emissions but the region will be heavily affected by any increase of sea level as a result of global warming because 50 percent of the Arab world's population lives at sea level.

The Arab population of 334 million is expected to reach 586 by 2050. Another challenge is the demand of water, because 66 percent of the region's surface water resources come from outside the Arab world. The Arab citizens' annual share of water dropped from 3,500 cubic meters in the year 1960, to 1,000 cubic meters now. Urgent actions need to be taken to cope with the future demand of water and confront poverty.

Agricultural land in the Arab world dropped from 23 percent in the year 1980 to 5.1 percent today. The study also revealed that the vast majority of Arabs, 90 percent, live in dry or semi-dry areas.

The Kuwaiti Greenline Environmental Group (GEG) [2]

The Kuwaiti Green Line Environmental Group is the first green group of its type in the gulf region promoting the environmental awareness and confronting any risks, which may be directed against the environment. A group of Kuwaiti activists established the first core of Environmental Green Line Group. Its activists have succeeded in uncovering many crimes against the environment that led to serious health problems among the members of the society as well as bringing environmental issues to the attention of government officials.

Looking at global remediation of environmental issues [3]

Small local actions cannot remediate the wrong doings of leading pollution emitters. According to the report only 4.7% of the global

emission comes from the Arab countries. Unfortunately the big polluters will reduce their pollution only if there is a financial gain. To start a new green economy the Kuwait Energy Initiative was developed to present economic incentives to get big energy corporations together on board .

The Kuwait Energy Initiative can be started immediately. It produces revenues right from the beginning and it is scalable to global dimension. [http://www.desertenergyproject.net/ 9 Kuwait Energy Initiative.pdf](http://www.desertenergyproject.net/9%20Kuwait%20Energy%20Initiative.pdf)

[1] Arab environment report to be released this month. Kuwait Times. April 12, 2010.
http://www.kuwaittimes.net/read_news.php?newsid=OTI4NDc5NTc0

[2] United Nations Environment Programme : Green Line Environmental Group
http://www.unep.org/civil_society/Registration/index2.asp?idno=1411
Website: <http://www.greenline.com.kw>

[3] The Kuwait Energy Initiative.
[http://www.desertenergyproject.net/ 9 Kuwait Energy Initiative.pdf](http://www.desertenergyproject.net/9%20Kuwait%20Energy%20Initiative.pdf)

10.04.2010: UN Climate Change Talks in Bonn is a hydra without profile [1]

The talks from 9-11 April 2010 aims to set targets for the conference in Cancun to be held in November this year. Right now there is no plan to be followed. There is only a firm hold on to well paid government projects and good jobs. The researchers which gather in Bonn are far away from the reality of life. Personality cult is put ahead of environmental issues. There is no consistency in their work.

The world needs urgently a plan. It is important to form a pact of nations to move ahead and exclude the bad guys who are only interested in power and wealth for their country. The head of the black polluter list is dominated by USA and China. Steven Chu, a servant of the interests of the polluting industry wants to wash everything green promoting mini-nuclear power plants, disregarding the pollution of radiating nuclear waste and environmental issues of uranium mining. This is the Hiroshima and Nagasaki revival. Westinghausen, Bill Gates and other fellows are on the way to make remittance.

If the United Nations have still some guts left, they should act now.

Do not make the cheapest choice to save the climate, take the best: Solar energy and hydrogen as energy storage and as fuel for transportation. Have a consistent plan for the next 100 years.

The consistent plan

Here is a consistent plan which brings countries together and tackles the global dimension of climate change.

The United Nations should motivate governments to use wind and solar energy primarily based in the sun belt of the deserts. These isolated array must be united to a global electrical grid. The surplus energy may be used to hydrolyse water. Hydrogen is the best energy storage and can be used as carbon-free fuel for transportation.

How to start

The financial aid planned for developing countries should be invested in the construction of wind turbines and solar energy constructions, starting in the most impoverished regions. Wind turbines and photovoltaic arrays are technologies which allow small immediate starts and may grow organically. Hydrogen may be produced near water resources. It may start small and is scalable to global dimensions.

Who should start

It is important to let aside the countries which are not willing to cooperate. USA and China, which are the real big polluters, will never join such action. They should be excluded from the talks. Europe, the Arabian countries, India and Australia are god for an alliance to move forward to a new world of cooperation between the whole humanity.

You may find more informations at http://www.desertenergyproject.net/Global_Initiative.pdf

Nuclear power plants in the Arabian and Persian region [2]

While the UN talks at Bonn lead to nowhere, nuclear power is increasingly being considered to be included in the energy systems of North Africa and the Persian Gulf region, especially OPEC members.

The interest in nuclear power plants are triggered by promises of cheap electricity. It is being concealed that there is no way to get rid of nuclear waste which will turn out to be an unsolved problem for generations to come. Nuclear power plants bring their owners in dependence of few countries which produce the fuel rods. Such examples are the United Arab Emirates which hand over a part of their energy independence to someone else which sells them the fuel rods.

Due to high investment costs nuclear power plants are only economically feasible if they are operated under full load. They are inflexible in operation, are used for base load electricity generation and cannot provide peak load electricity. This leads to high base-load generation, which does not match consumption of smaller countries. Such concentration of power generation increases a blackout risk, which is reduced with decentralised systems.

Small nuclear power plants proliferation [3]

The mini nukes that could produce up to 300 megawatts of electricity which date from 2006 out of the portfolio of George W. Bush administration are being promoted by President Obama and his Secretary of Energy Steven Chu. Their administration provides \$54

billion in loan guarantees for the nuclear industry. [4]

Small underground nuclear power plants are supposed to be safer, produce cheaper electricity as great plants and will cost less than \$600 million instead of more than \$5 billion for one GigaWatt plant. According to Tom Sanders, president of the American Nuclear Society, the mini nuclear power plants can be made available to developing countries around the world. The technology comes from the development of the cold war when nuclear submarines were built.

The mPower reactor is a conventional, 125-megawatt pressurized water reactor to be buried underground, with a life of 60 years. The spent fuel rods are stored in the reactor shell, making them virtually inaccessible. [5]

The Iris reactor of Westinghouse is planned to produce 335 megawatts of power. The IRIS reactor vessel houses not only the nuclear fuel and control rods, but also all the major reactor coolant system components including pumps, steam generators, pressurizer, control rod drive mechanisms and neutron reflector. It is scheduled to be accepted by the Global Nuclear Energy Partnership (GNEP). [6]

The Global Nuclear Energy Partnership GNEP [7]

Since 2006, the US government has championed the GNEP project, which it hopes could meet the growing energy demands of developing countries. Under GNEP, complete mini-reactors with sealed reactor cores are to be sold to developing countries. They are planned to operate for 30 years without maintenance and be delivered like empty deposit bottles, to the manufacturer. The United Kingdom, France, Canada, China and Japan will manage the GNEP

TerraPower, the company of Bill Gates and Toshiba, is working on a traveling-wave reactor where the fission zone travels slowly through an elongated fuel core. Plutonium is bred from depleted uranium and then immediately burned off. It may work for 50 to 100 years without refueling or removing any used fuel from the reactor. [8]

[1] UNFCCC: Bonn Climate Change Talks 9-11 April 2010
http://unfccc.int/meetings/intersessional/bonn_10/items/5533.php

[2] Energy systems in OPEC countries of the Middle East and North Africa. System analytic comparison of nuclear power, renewable Energies and energy efficiency. Wuppertal Institute for Climate, Environment and Energy.
http://www.wupperinst.org/uploads/tx_wiprojekt/OPEC-Energy-Systems_report.pdf

[3] Small is beautiful: Nuclear Industry Pins Hopes on Mini-Reactors. Spiegel Online 10.04.2010
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[4] Small modular reactors will expand the ways we use atomic power. The Wall Street Journal. March 23, 2010.
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[6] Carelly et al: The design and safety features of the IRIS reactor. Nuclear Engineering and Design 230 (2004) 151–167
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<http://www.gneppartnership.org/>

[8] Intellectual Ventures: Terra Power
<http://www.intellectualventures.com/TerraPower.aspx>

08.04.2010: German technology to store wind and solar energy as methane [1]

According to Gregor Waldstein of Solar Fuel, the German electric grid has the capacity to store a maximum of 0,07 Terawatt hours, which stands for only one hour of the electricity demand of Germany. Half of it comes from pumped-storage power plants.

Wulf Bernotat Ceo of the electricity giant E.on stresses the importance to build a solid energy storage system if renewable energy is going to be increased from the actual 16 per cent to 50 per cent in 2050.

Several strategies are being under development:

- Evonik is working on an enormous lithium-ceramic battery with a capacity to store 700 Kilowatt hours.
- The electricity supplier RWE wants to use compressed air reservoir technology to power their turbines when wind and sun power are lacking.
- Car batteries may be integrated in an intelligent grid.
- Netherlands scientists suggest to cool warehouses when excess of energy are available and reduce the demand when energy is scarce.

These strategies, however, are unable to bridge days or even months of energy shortage. Therefore the Government of Germany initiated an hybrid power plant which stores surplus wind energy in hydrogen at the Enertrag power plant with six megawatt capacity. [2]

Bavarian scientists are planning to react hydrogen won by electrolysis with carbon monoxide to produce methane. This gas can be handled as normal natural gas and use the already existing pipelines and infrastructure. Methane may thus be used as fuel for cars and be used in power plants.

Dirk Uwe Sauer of the RWTH Aachen University says that the efficiency is less than 40 per cent, however, improvements may attain a better score. The German natural gas infrastructure provides a storage capacity of 200 Terawatt hours, sufficient for the demand of 4 months.

[1] Forschung und Technik: aus Wind werde Gas. Focus Online 13.03.2010
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[2] Enertrag to invest 19 million in the first hybrid biomass-wind power-hydrogen power station.
<http://news.mongabay.com/bioenergy/2007/10/enertrag-to-invest-19-million-in-worlds.html>

29.03.2010: Oil producing countries meeting of the IEF in Cancun, 29-31 March 2010 [1]

Kuwait's Minister of Oil Sheikh Ahmad Abdullah Al-Sabah announced in Cancun, that Kuwait will host the next IEF and IEBF conference this year. He added that on the sidelines of the conference there will be meetings with chairmen of several companies.

The Mexican Secretary of Energy Georgina Kessel stressed that the conference addresses the decline in known energy reserves, the rise in the cost of energy resources, the imperative of addressing energy poverty and the threat of the effects of global warming.

The International Energy Forum (IEF) [2]

The IEF is the world's largest gathering of Energy Ministers. IEF Countries account for more than 90% of global oil and gas supply and demand. In addition to IEA and OPEC countries, transit states and key energy players, including Brazil, China, India, Mexico, Russia and South Africa, participate in the Forum. The permanent secretariat of the IEF is based in the Diplomatic Quarter of Riyadh, Saudi Arabia. Cancun, Mexico, 29-31 March 2010

The International Energy Business Forum (IEBF) [3]

The IEBF provides a platform for industry leaders to register and debate their views and concerns with a wide audience of the world's key policy-makers. The findings of the IEBF meeting are fed directly into the IEF deliberations to ensure that Ministers participating in the Forum are fully aware of the key priorities of the industry.

Report warns of biofuel effects on oil market [4]

There is need to review oil policies and climate change strategies, says a report which will be discussed at the EIF summit. Biofuels create uncertainty over future oil demand, leading to a cut on investments in oil production.

The report was written by a former head of Opec, the oil producers' cartel, and a former head of the International Energy Agency, the oil-consuming countries' watchdog.

UN International Assessment of Agricultural Science and Technology for Development (IAASTD) report [5]

The IAASTD report recommends that agricultural science place greater emphasis on safeguarding natural resources and on agro-ecological practices, including the use of natural fertilizers, traditional seeds and intensified natural practices, and reducing the distance between production and the consumer.

The European Environment Agency (EEA) recommended the suspension of the EU target of 10% biofuel use in transport by 2010, because the required land exceeds would harm the environment.

[1] Kuwait gets ready for energy conference. Kuwait Times. 29.March 2010
http://www.kuwaittimes.net/read_news.php?newsid=NTUyMzYzODUy

[2] The International Energy Forum (IEF)
<http://www.ief.org/Pages/IEF.aspx>

[3] International Energy Business Forum (IEBF)
<http://www.ief.org/Pages/IEBF.aspx>

[4] Warning biofuel targets may hit oil supply. Financial Times. March 3. 2010.
<http://www.ft.com/cms/s/0/ea030306-26e8-11df-8c08-00144feabdc0.html>

[5] Agriculture at a Crossroads. International Assessment of Agricultural Science and Technology for Development (IAASTD) report 2009
<http://agassessment.org>

03.02.2010: German politicians working for energy corporations [1]

Klaus Töpfer German politician of the CDU party, former Minister of environmental protection and nuclear safety was invited by DESERTEC to perform lobbying at governments in Europe and in Africa.

Desertec, planned investments of 400 billion Euro in solar thermal energy in the Sahara desert. Mainly German corporations are the associated founders such as the investors Munich Re, Deutsche Bank, power plant builder Siemens and the electricity giants Eon, and RWE.

Klaus Töpfer is to bring a political profile to Desertec, he will join Gerhard Schröder (SPD) former German Chancellor which lobbies for the Baltic Sea pipeline of Gasprom and Joscha Fischer (Green Party) which works for the Nabucco pipeline at the Near East, says Handelsblatt.

[1] Ein deutscher Erwecker für Wüste und Desertec. Handelsblatt. 02.02.2010

<http://www.handelsblatt.com/unternehmen/koepfe/klaus-toepfer-ein-deutscher-erwecker-fuer-wueste-und-desertec;2523344>

23.01.2010: Employee of URENCO/Germany contaminated with Uranium hexafluorid [1]

An employee of the URENCO Enrichment Company (UEC) in Gronau/Germany was contaminated and injured at arms, legs and feet with Uranium hexafluorid. The employee tried to perform a pressurising test of a transport container considered empty and washed. An amount of the radioactive hexafluorid escaped and contaminated the employee which was medicated and transferred to an hospital on January 22, 2009.

The URENCO Enrichment Company is responsible for operating centrifuge enrichment plants and marketing the enriched uranium to nuclear utilities worldwide. URENCO supplies these customers from plants in Germany, the Netherlands and the United Kingdom and has recently received the go-ahead for a fourth enrichment plant in New Mexico, the United States. Gronau is the site of URENCO's uranium enrichment plant in Germany. Here uranium is enriched in centrifuge cascades to the U235 assays required by nuclear power plants. [2]

The German company Urenco shipped nuclear material to Siberia, where the highly toxic waste was stored in containers in the open air. After disagreements about safety concerns Urenco keeps now its waste in containers at their facilities. Urenco plans to convert the uranium hexafluorid in uranium oxide which is easier to store. Urenco has a capacity for 2,750 tons/year. Uranium oxide has a half-life of almost 4,5 billion years.

In legal terms, uranium hexafluoride isn't considered nuclear waste in Germany. It is used in the uranium enrichment process. When uranium 235 for use in nuclear power stations is concentrated in it, so-called depleted uranium is left over and stored as waste. Depleted uranium is also not being considered as nuclear waste. This makes storage easy. [3]

[1] Uranfabrik Gronau: Mitarbeiter nach Strahlenunfall wohlauf

<http://www.spiegel.de/wissenschaft/technik/0,1518,673322,00.html>

[2] URENCO Germany

[http://www.urenc.com/content/45/URENCO-Deutschland-\(Gronau\).aspx](http://www.urenc.com/content/45/URENCO-Deutschland-(Gronau).aspx)

[3] Radioactive Waste: German Company Sent Nuclear Material for Open-Air Storage in Siberia. Spiegel Online. 19.10.2009.

<http://www.spiegel.de/international/spiegel/0,1518,655934,00.html>