

ORSAM

ORSAM WATER BULLETIN

Events-News-Politics-Projects-Environment-ClimateChange-Neighbourhoods-Cooperation-Disputes-Scarcity and more







WATER RESEARCH PROGRAMME -Weekly Bulletin-

Issue 119

ORSAM WATER BULLETIN

11 March 2013 – 17 March 2013

- * Iraq gears up for 'Grand Basra Water' project
- ***** UN program in Iraq declares its readiness to develop Iraq's water sector
- ◆ IDB, Ecobank earmark €377m for Iran's water and wastewater projects
- * President Obama, When in the Middle East, Walk on Water
- * Lake Kinneret Still Rising with Approach of Spring
- * Gaza Desalination Facility: EIB launches tender for technical assistance
- * Israel to help curb water crisis Collins Dauda
- ***** Is green reporting facing a hostile business environment?
- Middle East faces alarming water loss
- * The Political Economy Of Climate Change in the Arab Region
- * Climate change and water mismanagement parch Egypt
- * Water challenges increasing for countries in Middle East
- ***** UN bodies want to tackle drought to avert food crisis
- * Why It's Hard To Celebrate World Water Day In the Middle East
- ♦ Q&A: Water Disputes Get Resolved While Other Conflicts Rage
- Review: Water: Asia's New Battleground
- * Revived water wheels power India's rural mountain economy
- * Rains or Not, India Is Falling Short on Drinkable Water
- Deodorising system key to new wastewater DBO in India
- * Local people demand halt to dam construction in Mekong River
- * Laos Chided for Lack of Sustainability in Dams
- * Economic losses from disasters top \$100 bln for third year
- ***** Water policy: regional councils ready to bring expertise



* Iraq gears up for 'Grand Basra Water' project

The Iraqi Ministry of Municipalities and Public Works is preparing to begin work on the "Grand Basra Water" project, the largest of its kind in Iraq, officials said.

Work is slated to begin in earnest in the second half of 2013.

"Our ministry took on the task of meeting Basra residents' need for drinking water by executing several projects that purify and desalinate water," said Khaled Jumaa Ali, director of the Basra Water Directorate. "One of the most remarkable and the biggest such project in Iraq is the 'Grand Basra Water' project."

The project will cost about \$700 million, he said. The Iraqi government will finance 42% and the remainder will be covered under an easy-term loan the Japanese government has pledged Iraq.

PREPARING A HUGE NETWORK

The project will involve preparing a water distribution network; building a major pipeline to carry water to all parts of the province; and constructing a strategic storage tank with a capacity of 50,000 cubic metres, along with a pipeline to carry water to it.

In addition, all damaged lines and networks will be rehabilitated and repaired; two large water treatment units will be built, each with a capacity to treat 16,000 cubic metres of water per hour; and a desalination station will be constructed, with a capacity to process 10,000 cubic metres of water per hour, he said.

"The overall capacity of the project will come to 666,000 cubic metres a day, an amount sufficient to meet the water needs of Basra residents," he said.

Japanese water company NGS completed studies on the project, drafted its designs and prepared bills of quantities for the items and lists of materials needed, Ali said.



NGS will supervise each phase of the project, which is being carried out by other Japanese firms, and will train technical and engineering staff from the Basra Water Directorate, he said.

"Actual project work and implementation will begin next October at the latest, and will be completely finished and operational by the end of 2016," Ali said.

MEETING DRINKING WATER NEEDS

Once the project is complete, it will "meet about 80% of the Basra population's need for drinking water, and will provide a real solution to the problem of water salinity, which the people have suffered from for long", said Ghanem al-Maliki, a member of the Basra provincial council.

"The local Basra government will try, as part of its short-term plans, and before the project is completed, to build several water treatment and desalination stations to provide drinking water, in particular to the southern parts of Basra," he said.

Jawad al-Bazouny, an Iraqi MP from Basra province, said "for many decades, the salinity of water in Basra was a chronic problem for residents."

"As Arab Gulf waters crept into Shatt al-Arab, and with water quality declining considerably in recent years due to decreasing water levels from the Tigris and Euphrates, residents' hardship increased tremendously," he said.

"We hope the government will hasten to execute and complete the Basra water project, and go on to build more treatment and desalination plants in Basra to help eliminate that problem completely," al-Bazouny said.

"Iraq gears up for 'Grand Basra Water' project", 15/03/2013, online at: <u>http://mawtani.al-shorfa.com/en_GB/articles/iii/features/2013/03/15/feature-02</u>

BACK TO TOP



***** UN program in Iraq declares its readiness to develop Iraq's water sector

BAGHDAD / obelisk: The Director UNDP, Saturday, willingness of the international organization to do more in order to developing situation Allarroaii in Iraq as it leads to investing in available water to improve the status of agriculture and environmental protection.

The director of the UN program in Iraq who led a delegation of experts from the UN inspectors to Iraq Peter Batchelor's "obelisk" "The program has more ideas and plans and applications in the water resources sector in Iraq."

The following a meeting with the Minister of Water Resources Muhannad al-Saadi said that "Iraq still needs to integrated infrastructure irrigation work to keep pace with the needs and potential in the agricultural field of arable land and viable investment."

He noted that "the program seeks to assess the institutional structure of the arms of the Ministry of Water Resources and Rehabilitation leaders of integrated water resources and support of the Iraqi negotiator in international negotiations on common rivers and water consumption."

He added that "the program and the delegation of experts also asked to contribute to the field research carried out by the ministry to resolve field problems facing business and agricultural sectors Allarroaii."

"UN program in Iraq declares its readiness to develop Iraq's water sector", 11/03/2013, online at: <u>http://iraqidinarchat.net/?p=16868</u>

BACK TO TOP



◆ IDB, Ecobank earmark €377m for Iran's water and wastewater projects

TEHRAN - The Islamic Development Bank and the Ecobank have allocated €377 million to Iran's water and wastewater projects, IRNA quoted Iranian water and wastewater company official Hossein Bonakdari as saying.

The IDB and the Ecobank allocated €342 million and €35 million, respectively, he noted. He added that 8.75 trillion rials (about \$714 million) worth of bonds were issued and a major portion of which were sold to finance water supply projects

"IDB, Ecobank earmark €377m for Iran's water and wastewater projects", 12/03/2013, online at: <u>http://tehrantimes.com/economy-and-business/106387-idb-ecobank-earmark-377m-for-irans-water-and-wastewater-projects</u>

BACK TO TOP



***** President Obama, When in the Middle East, Walk on Water

The Israeli-Palestinian political process has been stalled for too long. It could soon be replaced by a third Intifada or a Palestinian version of the Arab Spring. If the renewed Obama Administration wants to try and avoid this possible turn of events, it has to change the paradigm that has guided all previous efforts to reach a solution to the Israeli-Palestinian conflict since the 1993 Oslo Accords. All of these efforts were predicated on the premise that a simultaneous solution to the three core issues -- Jerusalem, borders and refugees -- is attainable. It is time to change the paradigm.

Israelis remain divided between those who wish for a two state solution and those who want just one state all under Israeli control. Palestinians remain divided geographically and politically, between Gaza/Hamas and West Bank/Fatah. The longer it takes to resume the negotiations, the more difficult it will be to attain the two-state solution. Tackling the toughest issues first, such as Jerusalem, have proven to only prolong the stalemate.

We suggest renewing negotiations between the two sides on key issues that present immediate benefits for both sides, if a solution is found. Water is an excellent case in point. Given the dire Palestinian need for more water; Israel's increased water supplies due to large scale desalination; and a joint need to deal with untreated sewage; advancing water as a first priority makes economic, ecological, and not least importantly, political sense. An agreement on water would concretely improve the current living conditions of both peoples. For Palestinians increasing fresh water availability will improve living conditions in every home and for Israelis water cooperation would remove pollutants that originate in the West Bank from rivers and streams that flow through our main cities.

Politically, the two sides can proceed with minimal political cost. The Palestinian President, Abu Mazen could present an achievement in the form of additional much needed water for the Palestinian people. The Israeli Prime Minister Netanyahu could show progress in dealing with the conflict. We well understand however that increasing water availability to Palestinian cities and villages and removing sewage from Israeli streams will not suffice. The agreement struck would need to be not only a 'Final Accord on Water' and not another interim process, building much needed trust, but it must be time linked to negotiations on the tougher issues. This is where the U.S. will be most needed:



WATER RESEARCH PROGRAMME -Weekly Bulletin-

creating the roadmap and the timeline linking agreements such as the one on water to the end result -two states, Israel and Palestine. We call on President Obama when next month here in the Middle East to 'walk on water' and create a real chance for serious peace negotiations beyond just the photoop.

"President Obama, When in the Middle East, Walk on Water", 15703/2013, online at: http://www.huffingtonpost.com/oded-eran/obama-israel-palestine_b_2883257.html

BACK TO TOP



✤ Lake Kinneret Still Rising with Approach of Spring

With the approach of spring, Lake Kinneret (Sea of Galilee) is still rising and is now barely one meter short of its maximum capacity.

With the approach of spring, Lake Kinneret (Sea of Galilee) is still rising thanks to the blessing of an abundant rainfall this winter. The lake is barelyone meter short of its maximum capacity.

The level of the lake increased by four centimeters this week alone. Last weekend the surface of the lake rose by 2.5 centimeters.

At present, the surface of the lake stands at 210.5 meters below sea level, only 1.25 meters shy of the level before which the gates to the Degania Dam must be opened to avoid flooding in Tiberias.

Heavy winter precipitation and snow melting from the slopes of Mt. Hermon have continued to increase the level of the lake even into the approach of the spring season, which begins next week.

Israelis may not realize it, but **during Passover their water comes from underground wells**, rather than from the Kinneret, which feeds public water systems throughout the rest of the year.

The Israel Water Authority years ago arranged to stop pumping water from the lake into the National Water Carrier three days before Passover.

The move came in order to accommodate Israelis who chose not to drink tap water during the holiday out of concern the water from the lake, an open body of water, might contain chametz, leavening forbidden for consumption by Jews on Passover.

BACK TO TOP

[&]quot;Lake Kinneret Still Rising with Approach of Spring", 14/03/2013, online at: http://www.israelnationalnews.com/News/News.aspx/166221#.UUNsyxfwmz4



Gaza Desalination Facility: EIB launches tender for technical assistance

The European Investment Bank (EIB) has launched a tender for a €4 million service contract for Technical Assistance for the Desalination Facility for the Gaza Strip project, under the title "Assistance to the Palestinian Water Authority (PWA) for the implementation of the water supply to Gaza, Seawater Desalination Project".

The overall objective of this one-year technical assistance operation is to support the Palestinian Water Authority (PWA) with the implementation of a seawater reverse osmosis (SWRO) desalination plant with an annual capacity of 55 million cubic meters. This includes the preparatory work, additional studies and concept design for the plant, among other tasks. In addition, the consultant is expected to ensure cooperation with related projects and, generally, to support the PWA over the duration of the assignment in carrying out its duties and responsibilities in relation to the project.

This €4 million contract is financed by the European Commission through the European Neighbourhood and Partnership Instrument (ENPI) and the Facility for Euro-Mediterranean Investment and Partnership (FEMIP).

The Desalination Facility for the Gaza Strip project will be capable of delivering concrete benefits for 1.6 million impoverished citizens living on the southern shores of the Mediterranean, not only from humanitarian and health perspectives, but also contributing to job creation and future economic and sustainable development in this highly populated region of the Mediterranean. (<u>EU Neighbourhood</u> Info)

"Gaza Desalination Facility: EIB launches tender for technical assistance", 12/03/2013, online at: <u>http://www.enpi-info.eu/medportal/news/latest/32311/Gaza-Desalination-Facility:-EIB-launches-tender-for-technical-assistance</u>

BACK TO TOP



* Israel to help curb water crisis - Collins Dauda

The Israeli Ambassador Madam Sharon Bar-Li, has expressed the readiness of her country to support the water sector with modern and appropriate technology.

Speaking during a courtesy call on the Minister of Water Resources, Works and Housing Alhaji Collins Dauda, Madam Bar-Li stated that Israel places a high premium on water production as 75 per cent of waste water is recycled and used for industrial and agricultural purposes.

According to her, Ghana and Israel have had a solid tradition of the corporation even before Ghana gained independence.

She pledged the Embassy's readiness to support all sectors of the economy including the private sector.

Meanwhile the Minister of Water Resources Works and Housing, Alhaji Collins Dauda, expressed satisfaction about the Israeli company Armadi Construction's readiness to venture into water production.

According to him, Armadi is a reliable company that delivers on its promises.

He further stated that Government is committed to ending the water crisis that had engulfed the nation.

A conference on water management for officials is slated for June and October in Israel.

BACK TO TOP

[&]quot;Israel to help curb water crisis - Collins Dauda", 16/03/2013, online at: <u>http://www.citifmonline.com/index.php?id=1.1304851</u>



***** Is green reporting facing a hostile business environment?

While The Guardian has expanded its environmental reporting through corporate partnerships that might raise ethical issues, The New York Times has simply disbanded its environmental desk. By Zafrir Rinat | Mar.13, 2013

It can be said that global media coverage of environmental topics entered into a decline just at the time that they were really coming into their own.

Even as such reporting is continually shrinking and even disappearing because of the general crisis in journalism, its level of professionalism is increasing as it delves into greater depth on environmental issues to include their socioeconomic aspects. Because of these circumstances, green journalism in some instances is forced to make compromises and adjustments that challenge journalistic ethics.

Journalists who report on the environment were trapped for many years in a fairly isolated niche, in which they addressed topics like pollution prevention or nature preservation without almost any economic, social or political context. All of this changed in recent years, after the global financial crisis created a tight link between economic and social policy and the implications they have for environmental resources. Unsurprisingly, two of the newspapers that led the process of both broadening and deepening environmental reporting were The Guardian and The New York Times, among the world's leading and most highly regarded newspapers. The New York Times even established an environmental desk, with a large staff of writers and editors.

The Guardian added to its routine environmental reporting websites specializing in broad aspects of sustainability. Its reporting is based on a worldview that believes that market forces should be constrained and supports the egalitarian distribution and exploitation of natural resources. However, the British newspaper didn't just satisfy itself by defending the principles of social justice, but also decided that there was a need to create a channel with those that threaten justice and equality. Consequently it began a dialogue with executives at the world's largest corporations with the goal of creating a conversation about environmental protection and sustainability.

"One needs to criticize them, but also to encourage them when they try to change," says Joe Confino, the newspaper's executive editor who spoke this week at the Israel 2050 conference, which focused on the environment from its economic, social and media perspectives.



WATER RESEARCH PROGRAMME -Weekly Bulletin-

In addition, The Guardian promoted developing business ties with corporations leading to the creation of the websites such as Global Development Professionals, which received financing from the Bill and Melinda Gates Foundation and a host of corporations. The Guardian is also involved in several environmental ventures that are expected to yield profits. This is how the editors will assist the paper, which has been weighed down by heavy debts for several years now, in creating new sources of revenue.

Confino, who is responsible for several of the Guardian's Internet ventures that focus on sustainability, both reporting on the environment while assists in its protection, is convinced his paper will find a way to address the ethical problems that are likely to arise from its ties with corporations.

"We are partners in ventures with businesses that we are convinced are going in the right direction on sustainability," said Confino. "The condition for all cooperation is preserving complete editorial independence."

Behind this cooperation lies a pretentious worldview that it is possible to convince corporations to operate differently along the entire production chain, from the raw materials stage up through handling the refuse from the final products that are sold. In environmental jargon, this is known as a "circular economy," which means to recycle and reuse again and again material taken from nature.

According to Confino, some of the corporations have already answered the challenged and reduced their use of raw materials and greenhouse gas emissions. He acknowledges, however, that there is still a long way to go and in the interim the world continues to march toward an uncertain future of water and energy crises. "Today, even the executives of the large corporation understand that it's impossible to continue with the current way of doing things, and that they, too, won't have an economic future without a sustainable approach," he says.

Confino also doesn't deny that the media is still part of the problem because it continues to promote in its reports the culture of consumerism that depletes the planet's resources.

While the Guardian continues its efforts to make adjustments economically and organizationally and to create new ties with corporations, the New York Times decided recently to dismantle the



environmental desk it had created. In the past month, the paper announced that the seven reporters on the desk would be reassigned to other departments in the organization.

At the paper's headquarters they stated that the step wasn't taken as the result of cutbacks tied to the paper's financial situation. According to senior editors at the paper, when the environmental desk was set up in 2009 there was still a prevailing view that environmental reporting should exist its own right from a professional perspective. However, now views have changed and senior personnel at the paper believe there was more logic in having environmental reporters integrated into in the financial and economic parts of the paper.

The statements made by New York Times management didn't convince other journalists and media experts in the United States. Several of them termed the newspaper's decision as disappointing. All of them spoke of the need for journalists committed to the environmental field even in a period of serious economic recession. They recalled that it was a New York Times environmental reporter who had warned in recent years of the consequences of climate change in a series of articles that garnered broad exposure.

"Is green reporting facing a hostile business environment?", Haaretz, 15/03/2013, online at: http://mideastenvironment.apps01.yorku.ca/?p=6991

BACK TO TOP



* Middle East faces alarming water loss

The Middle East is facing a critical water crisis because of poor management and a 2007 drought, the American Geophysical Union warns in a new report.

BEIRUT, Lebanon, March 15 (UPI) -- The Middle East, one of the most arid regions on Earth, is facing a critical water crisis because of poor management and a 2007 drought, the American Geophysical Union warns in a new report.

It published a NASA study that showed in 2003-09 the Middle East lost a volume of water equivalent to the needs of up to 100 million people in the region. That amount of fresh water is almost the size of the Dead Sea shared by Israel and Jordan.

The region has long grappled with several major disputes over water involving Israel, Jordan, the Palestinians, Egypt, Sudan, Iraq, Iran, Syria, Turkey and Yemen, and these are getting more serious as water levels fall.

The latest report underlines concerns that the water crisis is worsening almost by the day at a time when the region is engulfed in political turmoil. This is largely due to the upheavals of the so-called Arab Spring in which four longtime dictators were toppled, triggering bloodshed and power struggles that show no sign of abating.

In this highly charged atmosphere, with a massive expectation of a new democratic era that has largely gone unfulfilled, the possibility of conflict over water resources must grow.

Despite fears over the years that nations would go to war over water, no such conflicts have broken out, although there have been heavy skirmishes caused by the quest for water security, most notably involving Israel and its Arab neighbors.

"However," Oxford Analytica observed Feb. 28, "groundwater depletion is now more serious than the contentious cross-border sharing of river flows. Associated conflicts will be on a community level rather than between nations."



That may be so. The incentive for cooperation rather than conflict on such a fundamental issue is considerable.

But the alarming rate at which water resources are shrinking could well ignite shooting wars among peoples cast adrift in the political maelstrom sweeping a region whose history is dominated by warfare.

The AGU study, published in its journal Water Resources Research Feb. 15, showed that freshwater reserves in Turkey, Syria, Iraq and Iran along the Euphrates and Tigris rivers that rise in Turkey and flow southward into the Persian Gulf have lost 144 cubic kilometers of the total stored fresh water in 2003-09.

That, the study says, constitutes the second fastest loss of groundwater storage after India.

The main reasons for this loss of water were listed as increased demand, poor management -- a perennial problem in the Arab world -- and the impact of the devastating 2007 drought, whose effects are still being felt. Over pumping of ground water was the primary cause.

With water run-off in the region expected to decline 10 percent by 2050 and demand set to rise 60 percent by 2045, "these findings have heightened concerns of an impending regional water crisis," Oxford Analytica said.

The region's main rivers -- the Euphrates, Tigris and Nile -- are the focus of major water disputes, with little prospect any of them will be resolved in the foreseeable future.

Iraq and Syria, which rely heavily on the Euphrates and the Tigris for water supplies, have suffered greatly since Turkey cut the flow of these two rivers that rise on its northern highlands by building a series of huge hydroelectric dams designed, in part, to expand the country's agricultural sector.

For instance, the flow rate of the Euphrates through Iraq, after it reaches there from Syria, has fallen 70 percent, in part because of the drought.



Egypt depends on the Nile for almost all its water, and for food production in the fertile Nile basin but it and Sudan are in dispute with eight upstream African states that want a more equitable share of the great river's waters.

Under colonial-era agreements with Britain, Egypt gets the lion's share of the Nile's waters.

But that's in doubt because the African states are buildings massive dams for irrigation and hydroelectric schemes to meet domestic demands.

Even with the 2011 overthrow of longtime Egyptian dictator <u>Hosni Mubarak</u> in the Arab Spring upheavals, Cairo remains at odds with Ethiopia, the main dam builder, and the other upstream states, and refuses to agree to any reduction in its water supplies.

"Middle East faces alarming water loss", 15/03/2013, online at: <u>http://www.upi.com/Business_News/Energy-Resources/2013/03/15/Middle-East-faces-alarming-water-loss/UPI-67421363375974/</u>

BACK TO TOP



* The Political Economy Of Climate Change in the Arab Region

Executive Summary

The policy process in the Arab world is poorly understood. That observation is even more pertinent with respect to policies aimed at adapting to climate change. Nonetheless, we can draw lessons from the literature on policy-making with respect to economic reform in the Arab world that bear upon the challenges political leaders face in undertaking adaptive measures to climate change. In short, the fiscal crises of the 1980s did elicit significant policy responses but more as a result of external pressures than of concern for domestic constituencies. That is the case as well with policies aimed at addressing climate-related challenges.

The Arab region has been characterized by pervasive authoritarianism with weak institutions of political accountability. That could mean that political leaders are relatively unconstrained in taking bold policy initiatives or relatively unmotivated to take risks. The evidence over the past decades indicates that inaction rather than action was the norm.

The Arab uprisings of 2011 may have begun to alter this picture of predominant authoritarianism. It is to be hoped that greater accountability in some Arab states may bring environmental issues more squarely to the front of the policy agenda. But we are in very early days, and even in countries such as Egypt and Tunisia where greater accountability of political leadership may become manifest, dealing with short-term economic crises may push environmental concerns to the near-bottom of the list of policy priorities. What could move them up the list are environmental crises, international pressure, and financial inducements and investments. These incentives will prove operative regardless of political regime.

I assess the influence of conventional sources of pressure on the policy process: lobbies, interest groups, public opinion, economic crisis, and the military-security apparatus. All are present and sometimes active in the Arab world. With the exception of the security apparatus, they have been ignored with impunity in the past. Working in favor of the environmental agenda are interlocking, transnational networks of experts, sometimes with significant financial resources, which keep environmental issues in full policy view.



Despite the apparent urgency of the challenges facing the Arab region as a result of climate change, inaction is a viable political strategy and, in ways I attempt to specify, the most likely one. The Arab and MENA regions have long suffered from symptoms we associate with global warming. For that reason there are already in place an array of policy responses, legal infrastructure, as well as competent experts who understand the problems.

What is recommended, therefore, is to build on existing policies and expertise. Radical departures are not warranted nor feasible. Building on what exists avoids taking on the issues of authoritarianism

and lack of accountability, as political leaders will be asked only to continue what they have been doing, but to do it better. If the Arab uprisings enhance accountability in specific countries, so much the better.

I identify a number of policies that have been well established and call for a careful regional assessment of their successes and failures with a view to improving them going forward. I also identify a number of policies that exist in embryonic form and need strengthening. Finally, I identify policies that are quite new, such as developing renewable energy sources, but which can be developed on the strength of existing expertise and experience. The guiding principle is to do what should be done even if there were no climate change.

It is often observed that mitigation is about energy and adaptation is about water. In the Arab region adaptation will be played out to a large extent in the agricultural sector where most of the water is used. Adaptation is also quintessentially political because it entails a range of social welfare effects. Typically a fifth or more of total employment is in the agricultural sector and the bulk of poverty is concentrated there. Political leaders may find themselves asking the poorest in their societies to bear the costs of adaptation.

It is important to remember that mitigation necessarily entails collective action if it is to have significant

effects. By contrast adaptation can be undertaken at the national or even the regional level unilaterally and still have positive results. This is important for the Arab world because adaptation will be the dominant response to the challenges of global warming. Some adaptation challenges in



WATER RESEARCH PROGRAMME -Weekly Bulletin-

the Arab world can only be met regionally, but the precedents for regional cooperation and trade are not encouraging. It is recommended that regional efforts be sharply focused, especially on sea level rise or desertification. Sharp focus may simplify cooperation and coordination. Because the MENA and Arab regions are not significant contributors to GHG emissions, and because efforts they undertake to adapt to warming may be overwhelmed by the failure of the main emitters to reduce their emissions, regional stakeholders will demand compensation for their adaptation efforts. I believe that the costs of compensation in the Arab world will not be prohibitive. By the same token I cannot guarantee that compensation will always be put to the purposes for which it is intended.

"The Political Economy Of Climate Change in the Arab Region", Arab Human Development Research Papers, 15/03/2013, online at: <u>http://mideastenvironment.apps01.yorku.ca/?p=6989</u>

BACK TO TOP



Climate change and water mismanagement parch Egypt

Climate change, a fast growing population, ill-designed infrastructure, high levels of pollution and lack of law enforcement have made Egypt a country thirsty for water — both in terms of quantity and quality.

The River Nile, which is considered poor by many experts and hydrologists, lies at lower altitude than the rest of the country. Massive electric pumps extract the water from the river's bed and canals and direct it to industry, agriculture and for individual water use.

A significant portion of the water contained in Lake Nasser's 5,000 square kilometer basin is lost to evaporation, while old networks of leaking pipes also deprive the country of satisfactory access to its most important resource: water.

In order to debate water scarcity in Egypt, its causes, and how climate change makes the issue more pressing than ever, as well as looking to solutions, a panel of experts were invited to participate in the 13th Cairo Climate Talk last week entitled "Growing Thirst: Sustainable Water Solutions for Egypt."

Tarek Kotb, the First Assistant Minister in the Ministry of Water Resources and Irrigation, and a member of the panel discussion, talked about the dwindling water share per capita with a sense of urgency. "Every year, the Egyptian population grows by 1.8 million, while the annual quota of Nile water allocated to Egypt, 55 billion cubic meters, has remained unchanged since the 1959 Nile Water Agreement," he says.

While Egyptians in the 1960s could enjoy a water share per capita of 2800 cubic meters for all purposes, the current share has dropped to 660 cubic meters today—below the international standard defining water poverty of 1000 cubic meters.

Kotb estimates that Egypt is gradually going to leave the stage of water scarcity and enter a phase of drastic water stress in the next 40 years, if no sustainable water management is put in place.

"By 2050, there will be about 160 million Egyptians and only 370 cubic meters of water per capita," he says. While Egypt has other options for its water needs, such as tapping into groundwater basins and desalinating sea-water, the bulk of water is still extracted from the Nile, leading to longstanding tensions with the other Nile basin countries.

The treaty signed under colonial rule in 1959 granted Egypt and Sudan most of the Nile water share, while upstream countries were given access to a very small allocation of water. Lama al-Hatow, a hydrologist and one of the founders of the Water Institute for the Nile (WIN) condemns Egypt's



historical and ongoing hydro hegemony, by which the country claims its entitlement to benefit from most of the Nile water.

"A lot of science has been published on how not to lose water if the Ethiopian Millennium Dam is built, but it is not given much attention by the politicians," Hatow says. "The upstream countries have the right to develop," she says, "and there are ways to make it happen without Egypt losing water."

She adds that preventing water evaporation in Lake Nasser could even increase Egypt's water share.

Kotb responding to her remarks, saying that Egypt is investing millions of dollars in Sudan, South Sudan and Ethiopia to overcome losses due to evaporation in marshes and basins. "We don't deny these countries' right to development; actually, we help them," he said.

Claudia Bürkin, the Water Sector Coordinator for the German Development Cooperation and Senior Programme Manager at KfW Development Bank, explains that Egypt's water resources face two main challenges: water loss and bad quality.

"Egypt loses about 50% of its freshwater through poor maintenance of supplies and distribution problems, and the water is polluted," she says, stressing that a significant number of diseases are water borne. Polluted water also affects the ecosystems' balance, the soil quality, and seeps into the aquifers. "Egypt needs to set up strong standards for water quality and control the drainage nutrients, pesticides and waste found in the water."

Kotb admits that while most of the issues and potential solutions have been identified by the government, much needs to be done in terms of implementation of existing laws and stronger cooperation between ministries.

"Water management is not the mandate of the Ministry of Water Resources and Irrigation exclusively, which makes the implementation process so much harder," he says.

A National Water Resource Plan was established a few years ago, Kotb says, to curb the amount of pollution in the Nile emanating from cruise boats, factories, industries and villagers deprived of a waste management system. As part of this, he explains, factories located close to the Nile or the canals have been moved further away from the water streams, and new industries will be prevented from setting up a plant within 20km from the water.

"Law 48 on pollution has been reviewed and the penalties will be tougher," he says. Meanwhile, Hatow argues that enforcing stronger penalties is not the solution to prevent farmers from polluting.

"Instead of punishing them, we should give farmers incentives to make better use of water, and provide them with premium crops," she says.



WATER RESEARCH PROGRAMME -Weekly Bulletin-

The conversation then shifted to the effects of climate change, which can already be felt in the Northern part of the Delta and in the Mediterranean coastal cities of Damietta and Rosetta. The gradual rise in sea levels taking place turns fields into barren land unfit for agriculture, and the sea water that infiltrates the Nile is reaching further and further away from the coast.

"In order to keep a good yield and maintain agricultural production," says Kotb, "we need to use more fresh water to combat rising temperatures."

Lama's take on how to combat climate change is quite different from this. "We need to study community based resilience techniques to figure out how local and indigenous knowledge can provide answers and climate resilience."

"Climate change and water mismanagement parch Egypt", Egypt Independent, 15/03/2013, online at: http://mideastenvironment.apps01.yorku.ca/?p=6984

BACK TO TOP



* Water challenges increasing for countries in Middle East

The world's driest region, the Middle East and North Africa (Mena), is getting drier at an alarming rate.

And yet, despite massive population growth (the Middle East's population grew 61% from 1990 to 2010 to 205mn people)* predictions of so-called "water wars" have failed to materialise.

So how has a region that water experts say ceased to have enough water for its strategic needs in 1970 proved so resilient to water scarcity?

"Trade is the first means of being resilient; it's the process that enables an economy to be resilient. The ability to trade effectively depends on the strength and diversity of the economy," Anthony Allan from King's College London and the School of Oriental and African Studies told IRIN.

That does not literally mean that countries import water directly; it is rather that because so much water is used, not for drinking, but for agriculture (around 90%), by importing food staples like wheat you are in effect importing water, something Allan calls "virtual water".

As a result, the region's growing population imports around a third of its food - a figure that shoots up in the Gulf states where arable land is negligible.

But while such resilience may "miraculously" solve extreme water scarcity and make life that exists today possible in the Middle East, it can create its own vulnerabilities; countries need economies that can generate enough foreign currency to pay for imports.

That may be easy in oil-rich countries with small populations like the United Arab Emirates and Qatar, but it is far more difficult in places like Egypt, which struggles to find the reserves to pay for wheat imports for its 84mn citizens in a context of declining crude oil exports and a slump in tourism.

Such trade "resilience" is also largely unaffordable in a place like Yemen - the region's poorest country, which has 25mn people in an extremely water scarce (and hence food scarce) environment.



Each Yemeni only has access to about 140 cubic metres of water annually and the capital, Sanaa, is on track to be the first in the world without a viable water supply.

While trade, an abundance of historically cheap food on international markets, and for some oil - sold at high prices - have combined to create an unexpected resilience in the face of water scarcity, such lessons may not travel well in the developing world.

Trade may have reduced dependency on local water supplies, but it has shifted dependency to international markets and exposed people to fluctuating world prices.

It has also hidden the gravity of the water scarcity situation in the Middle East and made it easier to neglect the development of other solutions to a problem that shows no sign of going away.

A recent study of Nasa satellite data published found that parts of Turkey, Syria, Iraq and Iran along the Tigris and Euphrates river basins had lost 144 cubic kilometres of water from 2003 to 2009 - roughly equivalent to the volume of the Dead Sea.

An analysis of the data published in the *Water Resources Research* journal attributes about 60% of the loss to the pumping of groundwater from underground reservoirs - reserves people fall back on when rivers dry up.

Underground reserves can only last so long, and importing ever increasing amounts of food to feed a growing population is not an option for poorer countries.

Nevertheless, there are other lessons in water scarcity resilience from the Middle East - either measures that have been shown to build resilience, or that water experts have come to understand would improve the strength of the system to further shocks if they were broadly implemented.

Some of these solutions are not new.

For a start, though the region may be drying, it has been dry for a long time.

"Water scarcity is not new to the region," Hamed Assaf, a water resource management specialist at the American University of Sharjah in the UAE, told IRIN.



"It has been the norm for thousands of years and people have adapted their survival strategies to changes in rainfall and temperature," he told IRIN.

With scientist predicting an increase in extreme weather events, adaptability has become increasingly important. It is also true that there remains a degree of unpredictability in the system, particularly in Egypt where it is not clear if future rainfall will increase or decrease.

Resilience is about being strong in the face of whatever happens. And in any situation, strong water systems make the most of what they have - including through treating and reusing waste water like at the Al Gabal Asfar water treatment plant in Egypt.

One old technique is rainwater harvesting. "In Jordan there are indications of early water harvesting structures believed to have been constructed over 9,000 years ago," Rida al-Adamat, director of the Water, Environment and Arid Regions Research Centre at Jordan's al-Bayt University, told IRIN.

Jordan harvests 400-420mn cubic metres of water annually, according to Ministry of Water and Irrigation spokesperson Omar Salameh.

"We have 10 major dams with a total capacity of 325mn cubic metres, in addition to hundreds of sand dams in different locations to develop local communities and recharge groundwater."

Water harvesting can be done at the household level especially in areas that get enough rainfall during the rainy season. "If your area gets 500mm of rain per year, you can collect enough water for household use," said Assaf.

"In Lebanon, people used to build ponds to collect water during winter and use it later on for irrigation and breeding animals," said Assaf.

"The main idea of water harvesting is to increase green water or soil moisture... Farmers in the region used to build small sand barriers on slopes to prevent the water from going down and thus recharge the area. Then they used to plant in the areas behind the barriers," he added.

A key aspect of efficient water use is data collection - important for sound water management at the country level.



"As the saying goes: what you cannot measure you cannot manage," Heba Yaken, water and sanitation operation analyst at the World Bank office in Cairo, told IRIN. "It is important to know how much you are consuming in order to manage it in a good way."

Jordan, which some say has one of the most monitored water scarcity situations in the world, has gained widespread recognition for its data collection.

"Jordan's data is relatively well organised, especially when it comes to agriculture. The volume of water consumption is precisely known in every area. They have installed measuring tools in every area so they know what kinds of crops are being cultivated and the amount of water they consume," Hiba Hariri from the Arab Water Council told IRIN.

Data-sharing in the region is limited, according to Yaken. "Countries are not as transparent as they should be," she said.

A whole range of solutions are being piloted and recommended in the Middle East.

In Egypt, the Arab Spring has encouraged farmers to become more outspoken in demanding their water rights, says Yaken from the World Bank.

Farmers have come together in "water users' associations" to help manage supplies and become more aware of water scarcity issues.

"Farmers are now responsible for the 'mesqas' (canals)", Yaken told IRIN.

"People at the tail of the `mesqa' don't get as much water as the people upstream. People are receiving much more training so that they can manage those disputes between the different farmers, and different demands," she said.

Elsewhere, capacity building is being carried out by the German Agency for International Cooperation (GIZ), which is running a climate change adaptation scheme designed to help Arab states climate-proof water systems.



While trade provides substitutes for much agricultural water use, the remaining 10% of water needs are increasingly being met by desalination, half of which globally is carried out in the Middle East.

Recent years have seen a large increase in desalination, clearly useful in a region without any landlocked countries, but it is an energy-intensive phenomenon almost entirely powered by fossil fuel power, which raises other environmental concerns.

Saudi Arabia uses 1.5mn barrels of oil a day to power its desalination plants, although it is looking to develop solar-powered plants.

Solar is a largely unexplored option for desalination, but also for increasing the efficiency of water systems, through technologies like solar-powered water pumps.

But although desalination may become an increasingly affordable, and renewable, solution, water experts say it can only be used as part of wider reforms.

A more resilient water system will also need adaptions on the demand side, including more efficient consumption of water, as well as co-operation between countries on the sustainable use of current resources.

"The problem is that we have short-term plans that change with the change of personnel or ministers," said Hariri from the Arab Water Council.

As climate change and population growth increase pressure on water systems, the Mena region will need to be increasingly efficient in its use of water - and may have lessons for other parts of the world.

*The definition of the Middle East used in the OECD/World Bank figures is Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, the UAE, Yemen, but not Israel or occupied Palestinian territories.

"Water challenges increasing for countries in Middle East", 10/03/2013, online at: <u>http://www.gulf-times.com/opinion/189/details/345046/water-challenges-increasing-for-countries-in-middle-east</u>

BACK TO TOP



***** UN bodies want to tackle drought to avert food crisis

GENEVA: U.N. agencies want to strengthen national drought policies after warnings that climate change would increase their frequency and severity.

Droughts cause more deaths and displacement than floods or earthquakes, making them the world's most destructive natural hazard, according to the Food and Agriculture Organisation, one of the groups taking part.

"We must boost national capacity to cope before droughts occur," Ann Tutwiler, FAO deputy director-general told the five-day talks on drought in Geneva attended by scientists, politicians and development agencies.

"Unless we shift towards such policies, we face the prospect of repeated humanitarian catastrophes and the repeated threat of drought to global food security."

In 2012, the United States experienced the worst drought since the 1930s "dustbowl", pushing grains prices to record highs. In the past years, droughts have also affected the Horn of Africa and the Sahel region as well as China, Russia and southeast Europe.

U.N. Secretary-General Ban Ki-moon said in December that extreme weather was the "new normal", adding that drought had decimated essential crops from the United States to India, from Ukraine to Brazil.

"No one is immune to climate change – rich or poor. It is an existential challenge for the whole human race – our way of life, our plans for the future," he said at the time.

However, governments have often been slow to act on drought as, unlike other natural disasters, they tend to develop more gradually and often do not generate an instant media buzz.

"As opposed to other natural disasters it's a slow creeping phenomenon," said Mannava Sivakumar a director for the World Meteorological Organisation's (WMO) climate prediction and adaptation division who assisted with the talks.



"If people say let's what and see what happens, before you realise it, you see crops dying, orchards dying and millions of dollars in damage," he added.

The four U.N. bodies that launched the "National Drought Management Policies Initiative" were the FAO, the WMO, the U.N. Convention to Combat Desertification and the U.N.-Water Decade Programme on Capacity Development.

The project aims to develop early warning systems, following the example of the U.S. National Integrated Drought Information System, and mitigation measures which might include helping farmers change their planting schedule to adapt to water shortages.

They said they would proceed through four regional workshops in eastern Europe, Asia-Pacific, Latin America and the Caribbean throughout 2013.

The conference also urged governments to develop stronger regional and global cooperation to improve observation systems and to put in place national emergency relief measures.

"UN bodies want to tackle drought to avert food crisis", The Daily Star, 15/03/2013, online at: http://mideastenvironment.apps01.yorku.ca/?p=6987______

BACK TO TOP



• Why It's Hard To Celebrate World Water Day In the Middle East

With the region getting drier 'at an alarming rate', what is there to celebrate this World Water Day?

In the lead up to World Water Day which will take place next Friday, I have gathered some interesting water-based facts on the issue. The Middle East and North Africa region is famously one of the <u>driest regions in the world</u> and things don't look like they are getting better. So what is there to actually celebrate? Read on for <u>the bad news</u> and also some rather great news...

Firstly, the bad news. According to the <u>latest statistics gathered by IRIN</u>, the Middle East and North Africa region (MENA) is getting drier at an alarming rate. And whilst trading and importing food brings in 'virtual water', it also makes the region extremely vulnerable to trade disruptions caused by dwindling supplies, higher prices or lack of money to pay for the imports. <u>As a report on the issue of climate change and the Arab Spring points out</u>, a winter drought in China contributed to global wheat shortages and skyrocketing bread prices in Egypt, which is the world's largest wheat importer. The report also points out that as the region's population continues to climb, "the water availability per capita is projected to plummet... Rapid urban expansion across the Arab world increasingly risks overburdening existing infrastructure and outpacing local capacities to expand services." Whats more, the reliance of Gulf countries on oil sold at high prices to buy food and also remain resilience in the face of water scarcity can't last forever.

As a the <u>report at IRIN states</u>, this trade has simply hidden the gravity of the water scarcity situation and made it easier to neglect the development of more sustainable solutions <u>(that doesn't include desalination)</u>. So is the region headed towards a perfect storm of water scarcity? That's not clear yet. For one, water scarcity is not new to the region. The Middle East has been slowly drying for thousands of years and people have always come up with strategies to survive. Adaptation strategies are slowly gaining more importance with Egypt investing more into its water infrastructure – the World Bank has granting Egypt US\$6.7 million to improve its management of water resources. And Jordan is taking more measures to harvest rainwater. The water-scarce country is also leading the way in terms of collecting water use data, especially in the agriculture sector which is consuming a huge portion of their water. So it's not all bad news.



WATER RESEARCH PROGRAMME -Weekly Bulletin-

Indeed another piece of good news is that <u>predictions of bloody conflict over water</u> have so far failed to materialise. Despite a growing population and more pressure on water resources than some predicated, people haven't taken to their guns to secure their share of water. This is something we can all celebrate as it not only demonstrates the region's maturity but also its willingness to tackle the issue with care and consideration.

"Why It's Hard To Celebrate World Water Day In the Middle East", Arwa Aburawa ,14/03/2013, online at: http://www.greenprophet.com/2013/03/why-its-hard-to-celebrate-world-water-day-in-the-middle-east/

BACK TO TOP



✤ Q&A: Water Disputes Get Resolved While Other Conflicts Rage

UNITED NATIONS, Mar 13 2013 (IPS) - What has education, science and culture to do with one of the world's most scarce and finite resources?

Plenty, says the United Nations, which has designated the U.N. Educational, Scientific and Cultural Organisation (UNESCO) as the lead agency to promote the 2013International Year of Water Cooperation (IYWC).

Asked if water is more an area for potential conflicts or an area for mutual cooperation, UNESCO Director General Irina Bokova told IPS, "Water acts as a unifier."

She said the historical record shows that water disputes do get resolved, even among bitter enemies, and even as conflicts drag out over other issues.

"Some of the most vociferous enemies around the world have negotiated water agreements or are in the process of doing so," said Bokova, a former foreign minister of Bulgaria, who studied at the University of Maryland and at Harvard University's John F. Kennedy School of Government.

In an interview with IPS, she said "it is often said that water can be a source of conflict.

"But at UNESCO, we are guided by the opposite idea – we want to see water as a tremendous resource for cooperation, for exchange and joint work between States and societies," said Bokova, the first woman to head UNESCO, and who is expected to run for a second four-year term, come October.

According to the United Nations, the IYWC will highlight "the history of successful water cooperation initiatives, as well as identify burning issues on water education, water diplomacy, transboundary water management, financing cooperation, national/international legal frameworks, and the linkages with the Millennium Development Goals (MDGs)."

Bokova said, "We need a new vision that marries social equity, environmental protection and sustainable economic development as part of a single agenda for a more sustainable world."

She said UNESCO strongly believes that water must lie at the heart of this vision, and water diplomacy is an essential tool of 'soft power' for a more peaceful world.

Excerpts from the interview follow.

Q: What are the specific areas of cooperation between, and among, countries now?

A: The Mekong Committee has functioned since 1957, exchanging data throughout the Vietnam War. Secret "picnic table" talks have been held between Israel and Jordan since the unsuccessful Johnston negotiations of 1953 to 1955, even as these riparians until only recently were in a legal state of war.



The Indus River Commission survived through two wars between India and Pakistan. And all ten Nile riparians are currently involved in negotiations over cooperative development of the basin.

There are numerous examples where trans-boundary waters have proved to be a source of cooperation rather than conflict. Nearly 450 agreements on international waters were signed between 1820 and 2007. And over 90 international water agreements were drawn up to help manage shared water basins on the African continent.

Q: Are the U.N.'s efforts at "water cooperation" feasible against the backdrop of water-sharing conflicts between India-Pakistan? Israel-Jordan? Palestine-Israel?

A: The role of the United Nations is to offer a platform for dialogue and communication through the tools that are available to the system. Each agency facilitates cooperation from a specific angle of intervention.

UNESCO, for example, uses education and science as a means to intervene in a situation where cooperation needs to be established or enhanced. Two unique programmes provide the organisation's member states with the scientific backbone needed for any water management issue at any level – from the local to the national, regional and international levels.

Firstly, the International Hydrological Programme (IHP) is the only intergovernmental scientific cooperative programme that aims at helping member states manage their water resources and address the needs of their peoples through science and education.

And, secondly, he World Water Assessment Programme (WWAP) which provides invaluable data and regular assessments of the planet's water resources, without which decision makers cannot move forward with their decisions making processes.

Q: Any concrete examples?

A: Example 1: UNESCO's Potential Conflict to Cooperation Potential (PCCP) programme, which is an associated programme of both IHP and WWAP, facilitates multi-level and interdisciplinary dialogue to foster peace, cooperation and development by building capacity to manage transboundary water resources.

For example, research on Lake Titicaca involved stakeholders from both Bolivia and Peru. A joint document was prepared outlining the status of conflict and cooperation in this trans-boundary water body.

In 1992, Bolivia and Peru created the Bi-national Autonomous Authority of Lake Titicaca recognising the importance of the joint management of the lake.

The PCCP programme worked to build on this cooperative will and to facilitate a joint vision common to all stakeholders through a joint case study providing a forum for cooperative action, and a joint management strategy while at the same time increasing knowledge of the shared water body.



Example 2: Arab countries are cooperating on the management of shared water resources through various intergovernmental fora.

These include the Arab Ministerial Water Council, which adopted the Arab Strategy for Water Security in the Arab Region to meet the challenges and the future needs of sustainable development (2010-2030).

The strategy highlights the importance of regional cooperation among Arab states for the management of shared water resources, the protection of Arab water rights, and the improvement of access to water supply and sanitation services.

Regional cooperation at the basin level is also being pursued to improve the management of shared surface and groundwater resources by adopting a common vision and the establishment of an inventory of shared surface and groundwater resources in the Western Asia subregion, which is being prepared by the U.N. Economic and Social Commission for Western Asia (UN-ESCWA).

"Q&A: Water Disputes Get Resolved While Other Conflicts Rage", 13703/2013, online at: <u>http://www.ipsnews.net/2013/03/qa-water-disputes-get-resolved-while-other-conflicts-rage/</u>

BACK TO TOP



Review: Water: Asia's New Battleground

Brahma Chellaney warns that Asian countries, which are drilling deeper to quench their thirst, will soon start stealing from their neighbours

Water will acquire the same strategic significance in the 21st century as oil did in the past century. Indeed, water will play a very crucial role in the rapidly drying regions of Asia and create a new battleground .

The implications of water scarcity in Asia were recently explained by Brahma Chellaney at the Asia Society in New York while presenting his latest book Water: Asia's New Battleground, which portrays water scarcity as "Asia's defining crisis of the 21st century". Chellaney, a professor at the Centre for Policy Research in New Delhi and a leading Indian strategic thinker and analyst, has won the Asia Society's 2012 Bernard Schwartz Book Award, which carries a cash prize of \$20,000 (Dh73,400).

Asia is much more susceptible to conflicts over water resources than other regions of the world, according to Chellaney. "Water has emerged as a critical issue that will determine if Asia is headed towards greater cooperation or greater competition," he said. "Asia, which has the lowest per-capita fresh water availability of all the continents, is at the centre of global water challenges. In an ever-deeper search for water, millions of pump-oriented wells threaten to suck Asia's groundwater reserves dry, even as the continent faces river depletion."

Chellaney contends that few people know that the driest continent in the world is not Africa but Asia, where availability of fresh water is not even half the global average. For every inhabitant, Asia has less than one tenth of the water of South America, Australia and New Zealand; less than one fourth of the water of North America; almost one third of the water of Europe; and 25 per cent less water than Africa. Yet it has the world's fastest-growing demand for water for food and industrial production, and municipal supply. To make matters worse, Asia has the world's largest number of people without basic or adequate access to water, in addition to very high water-distribution losses, a lack of round-the-clock supply in many cities, and drinking-water contamination due to unregulated industrial and agricultural practices.



Water, the most essential of all natural resources, is crucial for producing virtually all the goods and amenities — from generating electricity, mining energy resources to refining oil and gas.

Most countries in Asia, except China and archipelagoes such as Japan and Indonesia, are heavily dependent on waters from transnational rivers or aquifers. Often, securing a larger portion of the shared water resources becomes contentious in inter-country relationships. The discussion at the Asia Society was generously peppered with terms such as "hydro-hegemony", the "new Asian Great Game", etc.

Chellaney says that Asia was relatively unaffected by water shortages — other than in arid regions — before the era of rapid economic growth began in earnest about three decades ago. Thanks to the continent's dramatic economic rise, water resources have come under increasing pressure.

The risk of water becoming a trigger for conflict or diplomatic strong-arming is high across large parts of the continent, considering that treaties covering water sharing or other forms of institutionalised cooperation have been signed for only four of the 57 transnational river basins. These four are the Mekong, where the non-participation of upper-riparian China has stunted the development of a genuine basin community; the Ganges, where there is a treaty between Bangladesh and India; the Indus, which boasts the world's largest water-sharing treaty in terms of the quantum of cross-border flows; and the Jordan, a four-nation basin whose resources are the subject of a peace-treaty-related arrangement between Israel and Jordan.

Chellaney asserted that water disputes exist not only between countries but also within individual countries. Intra-country water disputes, he pointed out, are rife across much of Asia — from Southeast Asia and the Indian subcontinent to Central Asia and China. "Intra-state water conflicts tend to be more frequent and violent than inter-state conflict," he said. "Yet intra-state conflicts rarely get the kind of international attention that inter-state discords do. This is partly because inter-country water disputes carry greater security and economic risks."

One frequent source of intra-state water conflict is a government or corporate decision to set up a water-intensive operation in an already water-stressed area, or a national supply-side project. When water availability is already low, new plants or projects tend to spur greater competition over the scarce water resources. The building of large dams and other diversion structures has run into grassroots opposition in a number of Asian nations, especially those that are democratic, due to



displacement and submergence issues. Indian tempers recently flared at China's decision to construct dams on the Brahmaputra — the river originates from China-controlled Tibet — because of the adverse effects on India's water-stressed regions.

Chellaney argued that it is inadequate to look at water scarcity issues through the environmental lens alone. In Asia, water's role is no longer just an environmental issue; it has become a strategic issue.

Asia's population growth may have slowed, but its consumption growth continues unabated due to rising prosperity. An average Asian consumes today more resources, including water, food and energy. What were earlier luxuries have become necessities today, bringing the availability of water and other natural resources under strain. To protect Asia's economic growth and development goals, Chellaney felt that private-public partnerships could help create synergy in the water, energy and food sectors, improving water productivity and optimising water availability.

A comprehensive framework is also required to help advance internal and external security, including through inter-riparian cooperation. Chellaney's book recommends a cooperative, rule-based approach to addressing water resource concerns in Asia. However, as Chellaney acknowledged, there is little incentive to conserve or protect water supply for users beyond national borders unless, of course, specific water-sharing arrangements are in place.

The focus on narrowly defined national interests is the main reason why most transnational basins lack any cooperative regime. Often, commercial contracts, joint research, flood-control projects, and non-binding memorandums of understanding masquerade as water agreements. Yet there are just a handful of water treaties in Asia that incorporate a sharing formula on trans-boundary basin resources or provide for institutionalised cooperation.

Challaney predicts that China will exploit its control of the Tibetan Plateau to increasingly siphon off the waters of the international rivers that are the lifeblood of the countries located in a contiguous arc from Vietnam to Afghanistan.

At present, China looms large as a common factor in more than a dozen crucial river basins in Asia that lack any kind of institutionalised cooperation among key co-riparian states. China does not have a single water-sharing treaty with any co-riparian country, and has water disputes with multiple neighbours, including Kazakhstan, Russia, India, Nepal, Myanmar and Vietnam. Indeed, China's



conflicts with a number of water-sharing countries seem to be programmed for the future. Asia's water map changed after the 1949 communist victory in China. Most of the continent's important international rivers originate in territories that were forcibly absorbed by communist China, according to Chellaney. The Tibetan Plateau is the world's largest freshwater repository and the source of Asia's largest rivers, including those of mainland China. And although China is now the source of cross-border water flows to the largest number of countries, it rejects the very notion of water sharing or institutionalised cooperation with downriver countries.

The United States State Department has recognised the potential for a conflict due to Asia's growing water scarcity and upgraded the problem to "a central US foreign policy concern". Indeed, American intelligence agencies, in their 2012 reports, pointed to the water-related security risks in several Asian basins, creating new tensions and challenges and complicating US diplomacy.

Today's security concerns are mainly over maritime and territorial disputes in northeast Asia. Yet conflicts over access to water across Asia look equally likely and serious. Asia's exploding demand for water makes it the most water-scarce continent on a per capita basis. Many of its water sources cross national boundaries and, as less water is available, international tensions may rise.

The water security challenges facing China and India, in particular, may have consequences not just for the two rising powers, but also for Asia as a whole, calling for greater attention to the rising demand and cross-border disputes.

"Review: Water: Asia's New Battleground", 14/03/2013, online at: <u>http://gulfnews.com/about-gulf-news/al-nisr-</u>portfolio/weekend-review/review-water-asia-s-new-battleground-1.1158154

BACK TO TOP



* Revived water wheels power India's rural mountain economy

DEHRADUN, India (AlertNet) – Living in an isolated Himalayan hamlet, 2,500 metres (5,600 feet) above sea level, Govind Singh Rana seems an unlikely candidate for wealth. But by the standards of other villagers in northern India's Uttarakhand state, he earns a fortune by harnessing the power of the mountain stream that runs across his land.

Rana uses a water-powered turbine to run a saw mill, press apricot oil in season and generate electricity, at little cost to himself and without the need for environmentally unfriendly power sources like diesel generators.

He is one of 28,000 people in Uttaranchal who have discovered the advantages of a modern incarnation of the traditional wooden water wheel, or gharat. The turbines, which harness hydro power for small-scale industry by day and for generating electricity by night, have brought an ecologically sustainable economic revolution to the Himalayan states of Uttaranchal, Jammu & Kashmir and Himachal Pradesh, as well as the so-called Seven Sister states in India's northeastern Himalayas.

During the day, the turbines grind wheat flour and spices, thresh rice, press apricot oil and comb cotton. At night, the turbines in the first three states alone generate a total of 264 megawatts of electricity per hour, all without burning any of the fossil fuels that could exacerbate the effects of climate change on the Himalayan environment.

Spearheading the sustainable exploitation of mountain resources is Anil Joshi, a former professor of botany. Inspired by the Gandhian philosophy of rural self-sustainability, Joshi launched a grassroots movement to help Himalayan villagers stop using coal-intensive power and instead turn the region's thousands of fast-flowing streams into personal mini hydro-electric power stations.

Water wheels are a centuries-old technology in the Himalayas, but one that was becoming obsolete until Joshi and the Himalayan Environmental Studies and Conservation Organisation (HESCO), which he founded 29 years ago, taught villagers to develop alternative livelihoods by modernizing the wheels and using them for traditional industry during the day and to provide electric power to as many as 60 village homes per wheel at night.



UPDATING THE TECHNOLOGY

Improving the technology was key to HESCO's strategy. The old water wheels were inefficient, taking a day to crush around 10 kilos (22 pounds) of wheat. Making a single wheel was a laborious process that required the wood from an entire pine or deodar (Himalayan cedar) tree. And environmental considerations had led to restrictions on tree-felling which drove up the price of timber to as much as 500,000 rupees (\$9,200) for a single tree.

"These factors made the gharats unviable," Joshi explained. "And gradually, the system started dying out."

From a high of around 187,000, the number of water wheels in Uttarkhand, Jammu & Kashmir and Himachal Pradesh over time fell to around 98,000, said Joshi, who has undertaken surveys of mountain villages on foot and by bicycle in numerous states of India's north and northeast.

HESCO's solution was to improve the gharats by fitting them with modern gears and ball bearings.

"This doubled the output," said Manmohan Singh Negi, a HESCO worker, as he helped three other employees upgrade an old gharat into a modern one at Ghontu Ka Shera, a remote village around 22km (14 miles) from Dehradun, the capital of Uttarakhand state.

"Today a powerful gharat can turn out about two quintals (80 kg) of wheat flour a day, making it a very profitable option for villagers," Negi added.

The modernization of the technology has continued with the introduction of wheels made of steel. Wooden wheels were liable to break when torrential monsoon rains washed rocks downstream, and repairing the blades was time-consuming and costly.

"In the olden days, when a blade of a wooden turbine would break ... we would need to take the entire turbine out and make a different one, costing time and money," said Negi.

Using steel instead of wood has made it possible to repair a single broken blade – and most repairs can be done locally.

"With the new material used, one can simply take off the screws of the single turbine blade and get it welded and repaired locally, at very little cost and time," he explained.



GENERATING POWER

Originally, gharats were used simply to grind wheat for flour. But the improvements to the wheels gave HESCO an idea.

"It struck us that with this massive availability of water from the streams we can actually generate electricity, and this is what we started to do," Negi said.

HESCO continues to introduce innovations. At Ghontu Ka Shera, for instance, it has recently constructed its first horizontal turbine, rather than the traditional vertical ones.

"Due to the tremendous force of the hill streams, roughly 15 to 20 percent of the generative capability is lost when the water crashes into the turbine vertically. But in a horizontal turbine, we save that (capacity)," Negi said.

The Ghontu Ka Shera water mill does not simply crush wheat and spices by day and produce electrical power at night. The single horizontal turbine has four conveyor belts attached to separate machines for milling wheat, threshing rice, grinding spices and generating power, though to ensure maximum efficiency only two of the machines will be operated simultaneously.

HOW THE ECONOMICS WORK

Each gharat is run by an individual family. The owner of the Ghontu Ka Shera gharat is 45-year-old Kamal Singh Panwar. He will charge villagers up to 1 rupee (around 2 cents) to grind a kilogramme of wheat. They would otherwise pay twice as much for the use of a diesel-powered mill in Raipur, the nearest town.

From the 80-100 kg of wheat Panwar expects to grind each day, he should receive around 12 kg of wheat flour as well as cash in remuneration. Under an agreement, he will give HESCO around 1 kg of flour per day, which the organisation will then sell to gradually earn back its 200,000 rupee (about \$3,700) investment in the turbine.

Panwar points out that that there are further economic benefits to having his own mill, since he no longer has to pay 80 rupees to take a taxi to and from Raipur to have his wheat ground. And he will earn additional income by handling spices and rice.



For HESCO, the reduction in the carbon footprint from milling wheat is an important aspect of the programme. But it is above all a sustainable, environmentally friendly way to revive rural economies.

Panditji, a priest and another gharat owner from Ganeshpur, near the holy town of Uttarkashi, recounted how his son left the village to earn a living working in a town elsewhere in the state. By reviving his gharat for grinding wheat and spices and threshing rice, Panditji now earns an average of 25,000 rupees (\$460) every month, making him wealthy by local standards. But for him, the best part is that by improving his economic status he has been able to recall his son back to the village.

"Revived water wheels power India's rural mountain economy", 14/02/2013, online at: http://www.trust.org/alertnet/news/revived-water-wheels-power-indias-rural-mountaineconomy/?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=8984d20940-RSS_EMAIL_CAMPAIGN&utm_medium=email

BACK TO TOP



* Rains or Not, India Is Falling Short on Drinkable Water

CHERRAPUNJI, India — Almost no place on Earth gets more rain than this small hill town. Nearly 40 feet falls every year — more than 12 times what Seattle gets. Storms often drop more than a foot a day. The monsoon is epic.

But during the dry season from November through March, many in this corner of India struggle to find water. Some are forced to walk long distances to fill jugs in springs or streams. Taps in Shillong, the capital of Meghalaya State, spout water for just a few hours a day. And when it arrives, the water is often not drinkable.

That people in one of the rainiest places on the planet struggle to get potable water is emblematic of the profound water challenges that India faces. Every year, about 600,000 Indian children die because of <u>diarrhea</u> or<u>pneumonia</u>, often caused by toxic water and poor hygiene, according to Unicef.

Half of the water supply in rural areas, where 70 percent of India's population lives, is routinely contaminated with toxic bacteria. Employment in manufacturing in India has declined in recent years, and a prime reason may be the difficulty companies face getting water.

And India's water problems are likely to worsen. A report that McKinsey & Company helped to write <u>predicted</u> that India would need to double its water-generation capacity by the year 2030 to meet the demands of its surging population.

A <u>separate analysis</u> concluded that groundwater supplies in many of India's cities — including Delhi, Mumbai, Hyderabad and Chennai — are declining at such a rapid rate that they may run dry within a few years.

The water situation in Gurgaon, the new mega-city south of Delhi, became so acute last year that a judge <u>ordered a halt</u> to new construction until projects could prove they were using recycled water instead of groundwater.

On Feb. 28, India's finance minister, Palaniappan Chidambaram, proposed providing \$2.8 billion to the Ministry of Drinking Water and Sanitation in the coming fiscal year, a 17 percent increase.

But water experts describe this as very little in a country where more than 100 million people scrounge for water from unimproved sources.

Some water problems stem from India's difficult geography. Vast parts of the country are arid, and India has just 4 percent of the world's fresh water shared among 16 percent of its people.

But the country's struggle to provide water security to the 2.6 million residents of Meghalaya, blessed with more rain than almost any place, shows that the problems are not all environmental.



Arphisha lives in Sohrarim, a village in Meghalaya, and she must walk a mile during the dry season to the local spring, a trip she makes four to five times a day. Sometimes her husband fetches water in the morning, but mostly the task is left to her. Indeed, fetching water is mostly women's work in India.

On a recent day, Arphisha, who has only one name, took the family laundry to the spring, which is a pipe set in a cement abutment. While her 2-year-old son, Kevinson, played nearby, Arphisha beat clothes on a cement and stone platform in front of the spring. Her home has electricity several hours a day and heat from a coal stove. But there is no running water. When it rains, she uses a barrel to capture runoff from her roof.

"It's nice having the sunshine now, but my life is much easier during the monsoon," she said.

Kevinson interrupted her work by bringing her an empty plastic bottle. "Water," he said. Arphisha bent down, filled the bottle and gave it back to him. "Say, 'Thank you,'" she said. "Say, 'Thank you.'" When he silently drank, turned and went back to playing, Arphisha laughed and shrugged her shoulders.

In the somewhat larger town of Mawmihthied several miles away, Khrawbok, the village headman, walked nearly a mile on a goat path to point out the spring most residents visit to get drinking water. Taps in Mawmihthied have running water for two hours every morning, but the water is not fit to drink.

Khrawbok said that officials would like to provide better water, but that there was no money.

Even in India's great cities, water problems are endemic, in part because system maintenance is nearly nonexistent. Water plants in New Delhi, for instance, generate far more water per customer than many cities in Europe, but taps in the city operate on average just three hours a day because 30 percent to 70 percent of the water is lost to leaky pipes and theft.

As a result, many residents install pumps to pull as much water out of the pipes as possible. But those pumps also suck contaminants from surrounding soil.

The collective annual costs of pumps and other such measures are three times what the city would need to maintain its water system adequately, said Smita Misra, a senior economist at the World Bank.

"India is lagging far behind the rest of the world in providing water and sanitation both to its rural and urban populations," Ms. Misra said. "Not one city in India provides water on an all-day, everyday basis."



And even as towns and cities increase water supplies, most fail to build the far more expensive infrastructure to treat sewage. So as families connect their homes to new water lines and build toilets, many flush the resulting untreated sewage into the nearest creek, making many of the less sophisticated water systems that much more dangerous.

"As drinking water reaches more households, all the resulting sewage has become a huge problem," said Tatiana Gallego-Lizon, a principal urban development specialist at the Asian Development Bank.

In Meghalaya, efforts to improve the area's water supply have been stymied by bickering among competing government agencies, said John F. Kharshiing, chairman of the Grand Council of Chiefs of Meghalaya. In one infamous example, the state built a pump near a river to bring water to towns at higher elevations.

"But they didn't realize that the pump would be underwater during the monsoon," Mr. Kharshiing said. "So it shorted out that first year, and it's never been used since."

"Rains or Not, India Is Falling Short on Drinkable Water", 12/03/2013, online at: http://www.nytimes.com/2013/03/13/world/asia/rains-or-not-india-is-falling-short-on-drinkablewater.html?pagewanted=all&utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=53876bcd99-RSS_EMAIL_CAMPAIGN&utm_medium=email&_r=0

BACK TO TOP



* Deodorising system key to new wastewater DBO in India

The Delhi Jal Board, the authority responsible for water management in New Delhi, has awarded Degrémont a DBO (design, build, operate) contract to build an urban wastewater treatment plant at Delhi Gate Nalla with a capacity of 70,000 m³ per day.

This investment is part of the Yamuna Action Plan II, a bilateral project between the Indian and Japanese governments aimed at rehabilitating the quality of water in the Yamuna River, which provides over 70% of New Delhi's water needs.

The new plant will take two years to build, followed by 11 years of operation and maintenance for a total sum of approximately €29 million. The <u>treated wastewater</u> will be reused as make-up water by local industries and the Delhi Gate Nalla power plant.

Degrémont will equip the plant with two technologies: Densadeg, a decantation process, and Biofor, a fixed-biological-culture treatment system, enabling the plant's surface area to be limited to $25,000 \text{ m}^2$.

Also, in what will be a first for India, the plant will be equipped with a deodorising system for the treatment of wastewater in order to limit <u>unpleasant odours</u>.

In a second contract, the Bangalore Water Supply & Sewerage Board has awarded Degrémont a DBO contract worth $\in 12$ million for a tertiary wastewater treatment plant with a capacity of 40,000 m³/day at Raja Canal.

Following the design and construction phase, which is scheduled to last 15 months, Degrémont will be responsible for operating and maintaining the plant for five years.

Degrémont will help the Bangalore Water Supply & Sewerage Board to tackle these new issues using its technical processes, Densadeg and Flopac, enabling the wastewater to be reused in industry. The plant will meet the water needs of the new IT and automobile park at Raja Canal, according to the company.

"Deodorising system key to new wastewater DBO in India", 13/03/2013, online at: http://www.waterworld.com/articles/2013/03/deodorising-system-key-to-new-wastewater-dbo-inindia.html?cmpid=EnlWaterWorldInternationalMarch142013

BACK TO TOP



Local people demand halt to dam construction in Mekong River

UBON RATCHATHANI, March 14 – A boat procession cruised along the Mekong River Thursday as part of a campaign by locals who oppose the planned dam construction for power production here.

About 70 activists of a group calling themselves the Mekong River Lover Network of Ubon on Thursday held an activity to oppose the dam construction in the Mekong River.

Sime 30 boats with anti-dam banners floated along the nearly 20 kilometre trail in Khong Chiam district.

The campaign was initiated after a report that Thailand and a neighbouring country will jointly build a dam at Ban Khum-Tamui in Khong Chiam district to generate electricity.

Villagers are worried that the dam, if constructed, will lead to extensive flooding along the river from Khong Chiam district to Khemarat district in Ubon Ratchathani. In addition, it will also have an impact on tourist sites along the river.

Wai Pongpim, chairman of the group, demanded that the Thai government and governments of the Mekong River countries -- China, Laos PDR, Myanmar, Cambodia and Vietnam -- call off all dam construction plans, review studies on possible impacts in all aspects as well as to consider rehabilitation for those affected by the dam if it is built.

They also call for promoting the use of sustainable energy such as solar energy and power production in households.

"Local people demand halt to dam construction in Mekong River", 17/03/2013, online at: http://www.pattayamail.com/news/local-people-demand-halt-to-dam-construction-in-mekong-river-23450

BACK TO TOP



* Laos Chided for Lack of Sustainability in Dams

The government of Laos must devise a comprehensive plan for the development of dams in the landlocked country, a dam expert said Thursday, as villagers downstream along the key Mekong River express concern that the new Xayaburi dam will adversely affect farming and fishing.

The expert, who spoke to RFA's Lao Service on condition of anonymity, said that he does not oppose the construction of dams in Laos, but wants the government to form a plan of action that will result in more sustainable use of the country's river systems.

"I do not mean stopping all dam construction, but the government should better consider which dam should be built where, and which dam should not," he said Thursday in marking International Day of Action for Rivers.

"They must consider which dam should be built first and which should be built later," he said.

"The government needs a development plan."

According to Ittiphon Khamsouk, a Thai representative of eight riparian provinces along the Mekong River, one example of a dam project that the Lao government has not thoroughly evaluated is the Xayaburi dam, which will become the first dam to be built across the mainstream of the Mekong River.

Resource-starved Laos, which has a total of over 70 dams under construction or in the planning or consideration stages, is aiming to become the "battery" of Southeast Asia by selling hydroelectric power to its neighbors.

But it has drawn ire for pushing forward with the U.S. \$3.5 billion Xayaburi hydropower dam without first getting regional consensus from downstream neighbors concerned about the project's transboundary impact.

Khamsouk said that activists in Thailand, which sits downstream on the Mekong from the Xayaburi dam, had planned a number of protests against the project in several provinces throughout the country to mark International Day of Action for Rivers.

He said dam experts and villagers who live along the Mekong were to gather at forums in the capital Bangkok, as well as in Ubon and Loei provinces, where they will exchange information about how the Xayaburi and upstream dams in China are likely to impact riparian communities.

In addition, he said, Thai senators and experts were to meet this week to discuss filing a lawsuit



against the Thai government, calling for a cancellation of its power purchase agreement with Laos's Xayaburi Power Co. An earlier agreement would send 95 percent of the dam's electricity to Thailand when the dam becomes operational.

The 1,260-megawatt Xayaburi is the first of 12 dams to be built on the Lower Mekong River.

Riparians affected

Thai villagers have recently complained that their fishing and farming has already been affected by what they allege is the opening and closing of Chinese dams upstream on the Mekong, and they say that the Xayaburi will exacerbate the problem.

One riparian villager, who gave his surname as Khaew, said access to water from the Mekong has become increasingly unpredictable, making reliance on planting crops like rice, chilies, tomatoes, corn, eggplant, lettuce, and other vegetables a risky business.

"After China completed its [first of four hydropower] dams on the Mekong in 1993, the way of life for Mekong riparian communities was changed forever," Khaew said.

"Crops used to be planted in January, February, and March, but now they can't be planted because we don't know when water will come, or if it will come," he said, adding that recently the Mekong had dropped to between 2-3 meters (6-10 feet) compared to a normal depth of 12 meters (40 feet).

"This causes difficulties for farmers, affecting their work and family finances. When they can't grow vegetables, they have no income."

The average annual income of Thai villagers living along the Mekong River is around 28,325 baht (U.S. \$950).

Khaew said that the dry season in Thailand had come earlier than usual this year and had been drier than usual. But sometimes, he said, the water level would rise rapidly.

Farmers in the area believe that the changes are a result of China opening and closing its dams in a bid to generate electricity.

"Sometimes there is too little water, but sometimes the water streams so fast that it floods our crops on the river bank," Khaew said.

A farmer from Nongkhai province who gave his surname as Tom said that the season was particularly unusual this year, with the Mekong drying up as early as December. He said villagers are



worried that the Xayaburi dam will make things even worse.

"Usually, the Mekong River begins drying up in February, March, and April, but for the past two to three years it has already dried up by the end of November or early December," he said.

"The four dams that China has built must have closed their water gates to generate electricity—that's why the water is drying up."

Fish farmers, who breed in floating stands on the Mekong, say their businesses have also been hit as a result of the lowered river levels, which they say causes higher water temperatures that kill their stocks.

"When the water is shallow, it causes fish to die," said a fish farmer from Nakhone Phanom province who spoke on condition of anonymity.

"The water was never as low as it is presently. Now it is so dry and the water is so shallow. When the water levels shrink, it becomes hot."

According to data from the Thai government, at least 562 families in nine villages of five northeastern provinces lived along the Mekong River in 2012.

Mekong flooding damaged around 70 percent of crops in the villages, while drought on the Mekong destroyed about 40 percent of crops last year.

Action for Rivers

In an article published by the *Bangkok Post* on Thursday, Pianporn Deetes, Thailand Campaign Coordinator with the California-based International Rivers, said that as countries open up to free trade and try to boost transborder investment, corporate giants in Asia have jostled with one another to exploit smaller, resource-rich countries like Laos, Cambodia, and Burma.

"As investors, with support from their governments, seek only to maximize profits, they pay little attention to the impacts on local villagers and river ecology," she said in an editorial highlighting the 16th anniversary of International Day of Action for Rivers.

"They seem to forget that environmental problems have no boundaries, and that they too cannot avoid the negative consequences of their own projects."

She said that a number of studies indicate that the Xayaburi dam, if built, will severely curtail the fish populations of the Mekong and that the project, along with the other 11 dams planned for the river



"will deal a heavy blow to 2.1 million people and the environment" while only generating 11 percent of the region's power demand.

"Laos Chided for Lack of Sustainability in Dams", 15703/2013, online at: <u>http://www.rfa.org/english/news/laos/dam-03142013184331.html</u>

BACK TO TOP

WWW.ORSAM.ORG.TR

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr



* Economic losses from disasters top \$100 bln for third year

LONDON (AlertNet) - Economic losses from disasters have exceeded \$100 billion for three years in a row, the first time this has happened, the U.N. Office for Disaster Risk Reduction (UNISDR) said on Thursday.

The high costs are due to a huge increase in the exposure of industrial assets and private property to disasters, the agency said. Economic losses caused by disasters were \$138 billion in 2012, \$371 billion in 2011 - a large proportion due to the Japan earthquake and tsunami - and \$138 billion in 2010, it added.

"A review of economic losses caused by major disaster events since 1980 shows that since the mid-90s there has been a rise in economic losses and this has turned into an upward trend as confirmed by the losses from last year when, despite no mega-disaster such as a major urban earthquake, economic losses are conservatively estimated in the region of \$138 billion," UNISDR Director Elizabeth Longworth said in a statement.

In 2012, some 310 disasters killed 9,330 people and affected 106 million others, according to preliminary data. The deadliest event was Typhoon Bopha which hit the Philippines in December with over 1,900 dead and missing.

The annual average number of disasters from 2002 to 2011 was 380, and the annual average number of affected people was more than 245 million, suggesting that 2012 experienced relatively fewer disasters than recent years, with lower human impact.

Asia showed itself to be the most disaster-prone part of the world once again in 2012, both in terms of the number of disasters and the number of victims, UNISDR said. More than 42 percent of disasters occurred in Asia in 2012, and it had the highest share of deaths at 64 percent and the largest share of affected people at 68 percent. China reported the largest number of natural disasters globally, at 23, followed by the Philippines with 20.

But 63 percent of economic losses were in the Americas, mainly from Hurricane Sandy - which hit the Caribbean and the United States, where it caused damage of \$50 billion - and the drought that affected the U.S. Midwest, at \$20 billion. Two successive earthquakes in Italy in May 2012 resulted in losses of nearly \$16 billion.

Two long cold waves at the beginning and end of last year killed almost 1,000 people in Europe. Africa was severely affected by drought in the Horn and Sahel regions, and also by floods, including those in Nigeria that took over 360 lives.



WATER RESEARCH PROGRAMME -Weekly Bulletin-

Debby Guha-Sapir, director of the Centre for Research on the Epidemiology of Disasters (CRED) at Belgium's University of Louvain, which compiles the disaster statistics, noted that floods and droughts were responsible for nearly 80 percent of all disaster victims in 2012. But the economic losses from these disasters were small, as they occurred mainly in poorer countries.

"Even so, the floods of Pakistan cost nearly 2 percent of its annual GDP which is a lot to recover," the professor said. "Disasters are a major problem in all poor countries and threats to global security. They should be taken seriously."

"Economic losses from disasters top \$100 bln for third year", 14/03/2013, online at: http://www.trust.org/alertnet/news/economic-losses-from-disasters-top-100-bln-for-thirdyear/?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=8984d20940-RSS_EMAIL_CAMPAIGN&utm_medium=email

BACK TO TOP



***** Water policy: regional councils ready to bring expertise

Water policy: regional councils ready to bring expertise to the table

Local Government New Zealand has cautiously welcomed the Government's proposals in *"Freshwater reform 2013 and beyond,"* launched on Saturday at the BlueGreen conference by the Minister for the Environment, Hon Amy Adams.

However, co-ordinating the proposed Government reforms to the Resource Management Act announced last week with the proposed changes to fresh water policy announced Saturday will be a challenge, says LGNZ Regional Chair, Fran Wilde.

"Water is a resource that underpins our economy, is the foundation of the nation's natural character and is culturally important. Getting it right is vital.

"Also, both reform work streams are on very tight timeframes with limited opportunity for consideration and feedback by stakeholders, including the public.

"For example, careful analysis of the practical implementation issues and costs associated with data collection should be carefully understood. This is exactly the type of issue recently highlighted by the Productivity Commission as leading to poor regulatory design and unnecessary implementation costs. Having got to this point after several years of deliberation by the Land and Water Forum, the length of the consultation period is disappointing.

"Regional councils have the collective experience to help with practical application of these types of reforms and we want to work in partnership with central government to ensure that they hit the mark and can be properly implemented with a minimum of extra cost to the community.

"National expressions of water related policy are important, but each region has particular needs relating to their catchments and other geographically specific considerations. This is where regional councils can step in and fill a vital gap," Ms Wilde said.

"Water policy: regional councils ready to bring expertise", 11/03/2013, online at: http://www.scoop.co.nz/stories/PO1303/S00118/water-policy-regional-councils-ready-to-bring-expertise.htm

BACK TO TOP