

Weekly Water Report

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COMMENTARY

Water Rich, Water Management Poor

LIMA, Peru (OOSKANews)

The water sector in Latin America, home to nearly half a billion people and growing, is as diverse as the 20 countries that make up the region.

Water resources and access to these resources vary not only from country to country, but within country from watershed to watershed, and from urban to rural areas.

Management of these resources also reflects the diversity of the region, with participatory cooperatives managing a city's water system in Santa Cruz, Bolivia to a private operator running the system in San Pedro Sula, Honduras.

Latin America does not suffer from inadequate water resources: four of the world's largest rivers are found in the region and the amount of rainfall the region receives each year is much greater than other geographical areas of comparable size.

Water resources, like many other resources in Latin America, are not naturally distributed equitably or found where the greatest population centers are located.

Rain falls for a few months out of the year in the vast majority of Latin America, from its mega-cities to its rural highlands, creating the need for adequate storage and distribution mechanisms to meet needs year round.

As in most regions of the world, water is primarily used for agricultural purposes, with industry and human consumption following, with some exceptions. Mexico stands out as its water resources are primarily used for energy purposes, followed by agriculture. The rivers found in the region have been developed into income-generating entities, from the massive hydroelectric dams in Mexico to the river-rafting tourism industry in Costa Rica.

Latin America is frequently cited as the most unequal region in the world. While wealth and natural resources are abundant, the distribution of them is not. This division extends to access to improved water and sanitation facilities, as well.

When the rural/urban divide is taken into account, Latin America ranks third from the bottom in terms of coverage. The high urban coverage of 97 percent masks the much lower rural coverage of 73 percent, which is higher only than Sub-Saharan Africa and Oceania. The region is characterized by a relatively low population density, but with more than $\frac{3}{4}$ of its population living in urban areas.

The water sector is carefully measuring its progress towards the Millennium Development Goals—a series of global benchmarks to track progress in water and sanitation.

In the recently released World Health Organization's report, the entire Latin American region is on track to reach the Millennium Development Goal of halving the percentage of people without access to water by 2015.

"One of the determining factors if a country is going to meet these goals is the commitment of the national government," says Pilar Alva of Peru's Ministry of Housing, Construction, and Sanitation. "Peru's current government has adopted the Agua Para Todos program to provide leadership and coordination in the sector. Without direction and support from this level, the possibility for duplication of efforts and inefficient spending of resources greatly increases."

Three Latin American countries have made great strides in achieving the sanitation Millennium Development Goal -- Mexico, Honduras, and Guatemala -- but many remain off track to providing sanitation facilities to those without.

A concerted effort of governments, donors, the private sector, international financial institutions and civil society are pooling human and financial resources to change this equation.

Ninety percent of wastewater is discharged untreated into rivers and streams, further polluting an already contaminated environment. As water and sanitation coverage is near universal in urban areas, the challenge in these locales is developing, financing, and sustaining effective wastewater treatment systems to protect human health and the environment. Moreover, the quality of drinking water in large cities in the region is unpredictable, leaving many residents to further treat their water before consumption.

Kenyan Nobel Peace Prize winner Wangarai Maathai, opened the 2008 Transparency International report on corruption in the water sector arguing that the water crisis is a crisis of governance. As water resources become scarcer with population growth and the effects of climate change, the need for improved governance is paramount.

Latin America exhibits a range of different examples in governance from small-scale private service providers in Paraguay to cooperatives in Bolivia.

The World Water Forum, held in Mexico in 2006, created a global and regional forum for water sector experts. Nearly 25 sub-topics were identified as areas for strategic intervention, but both industry leaders and civil society both agreed that the following areas were of utmost importance for modernizing the sector and sustaining investments:

- Decentralization
- Legal and regulatory frameworks for Integrated Water Resource Management
- River basin organizations and the appropriate institutional levels for management

Decentralization has been a trend in the region for the last 10-15 years. What used to be the responsibility of the central government, providing access to water and sanitation services, has been delegated to local authorities.

In particular, the role of local governments in urban areas and local communities in rural areas, are often unclear and do not receive sufficient funding to complete the mandate. Peru's Alva tells OOSKA news that "the first step towards improving our service delivery has been to modernize the sector through clarifying roles of key actors, updating norms, and developing a plan at the national and local level."

While many national level policies delegate service provision to local authorities, conflicting policies, unclear procedures, and inadequate financial and human resources at the local level result in generally poor service quality from small towns to large cities.

Inefficient management, unsustainable tariffs, and aging infrastructure are just a few of the challenges that the sector faces. Many countries within the region have gone through institutional restructuring in the last few years in an effort to complete their mandates of providing water and sanitation in a more effective and cost-efficient manner.

For example, Honduras is implementing the changes written in the 2003 National Framework Law for Water and Sanitation and Bolivia recently created a Ministry of Water to coordinate all water-related activities.

At the local level, service providers range from local government managing water systems, mixed public-private concessions, and private contracts to build, operate, and maintain systems. In the rural areas, management is most frequently delegated to a community-based organization.

Integrated Water Resource Management (IWRM) is an increasingly popular management strategy for the water sector in Latin America. IWRM includes several principles to a holistic management of water resources: 1) water is a scarce resource; 2) stakeholders at all levels, from users to policy makers, need to be included in the planning and decision-making process; and 3) water has an economic value and needs to be seen as a resource with competing uses.

By including IWRM in planning and implementing water use projects, it is assumed that the potential conflicts that arise when

demand for water for various uses will decrease. As evidenced by the need for increased legal and regulatory frameworks, however, scaling up IWRM to the national and trans-national level remains a challenge in the region.

Similarly, the last challenge, river basin management, is linked to the implementation of trans-boundary IWRM as many river basins include multiple nations.

For a region with such ample water resources, the challenge is to govern them in such a way that those who have service continue to be served with a high quality product and that those that do not, are covered in the near future.

Brazil's Sanitation and Hydroelectric Projects Safe from Financial Crisis

BRASIIA, Brazil (OOSKAnews)

Brazil's government and private agents agree that sanitation and hydroelectric projects in the country will not be constrained by the effects of the international financial crisis.

Last week both President Luis Inacio Lula da Silva as well as four investment banks and consulting firms made public their evaluations that projects in these two areas are connected to long-term needs and therefore will not be suspended due to conjunctural problems.

In this week's speech on a national radio network, President Lula said that his government will not allow investments in sanitation and energy to be suspended nor have their momentum diminished.

He reaffirmed that those projects included in the Growth Acceleration Program (PAC) will continue to be examined by official credit agencies as priorities to have access to subsidized rates for lending.

Lula da Silva especially meant the National Bank for Economic and Social Development (BNDES), a 100 percent state owned giant financial group with an annual budget of \$43 billion USD – an amount by far larger than the budget of the World Bank.

At the same time, four of the largest financial consulting firms and banks – Unibanco, Coinvalores, Ativa and Citigroup – released sectorial reports that point towards similar evaluations of companies in the sanitation and hydroelectric fields.

According to these evaluations the average company in both fields have low indebtedness rates, has long-term service contracts, has stable cash flow and is among the federal government's priorities –

making such companies eligible to obtain subsidized lines of lending at official banks, especially the BNDES and Caixa Econômica Federal (CEF).

BNDES only recently started investing in the expansion of the sanitation system, but Caixa Econômica Federal (CEF) is a traditional source for housing and sanitation programs.

Recently, the bank reorganized internally to accelerate the evaluation process for lending money for PAC projects.

In addition, the Treasury passed in Congress a measure to lend \$7.1 billion USD to BNDES, an amount above the bank's original budget.

The infrastructure sector involves large, long-term projects with stable invoices. They are not currently suffering from the oscillations of the current crisis according to a Citigroup report.

Another show of strength is that these companies are oriented toward the internal market that in recent years has grown solidly with projected good financial health in the short and mid terms noted Unibanco, the third largest privately owned bank in Brazil.

In 2007, the National Gross Product rose 5.1 percent mainly due to internal demand.

Economists project a similar rate for 2008 banking that the domestic market will stay alert and be immune from international turbulence.

FINANCE AND FUNDING

Chile Seen as Safe Haven for Investment by Spanish Agbar

BACELONA, Spain (OOSKAnews)

Angel Simón, general director of Spanish water group Agbar, has told investors that he regards Chile as a safe haven for his company's investments despite the current financial turmoil gripping the world's markets.

Speaking in Madrid earlier this month at a seminar on business opportunities in Chile, Simón said the country, "...takes first place for its political stability." He added that Agbar, and many other fellow Spanish firms, looked to Chile as a "great destination" for investment opportunities, said a Chilean government news release. Agbar already owns significant water concessions in Chile.

"Regarding the question of where to invest I say, without a doubt, it must be Chile, which is an opportunity when facing this crisis," Simón continued. "Chile is a great destination for investment and large Spanish firms have taken advantage of what our country has to offer while helping us develop our infrastructure."

Chile's deputy foreign relations minister, Alberto Van Klaveren told business executives during the seminar that his country was keen to attract Spanish investment, and said the favorable business climate in Chile gave preferential treatment to investors.

"We want small and medium Spanish firms in Chile and our strengths can be summarized in economic stability, legal security, an active trade policy with a tariff below 2 percent and a network

of 58 trade agreements that cover nearly 88 percent of our exports, which means preferential conditions in this area," he said.

The company has extensive water interests throughout Latin America and is looking for opportunities to extend its investments in Chile, Mexico, Cuba and Colombia in addition to other areas such as the United States Agbar president Jordi Mercader said.

Despite the turbulence in world markets, Mercader said he was optimistic about his company's prospects, saying it would be a "good year" for Agbar, with profit growth in line with expectations.

Cedae to Invest \$18 million USD in Rio de Janeiro's Rural Areas

RIO DE JANEIRO, Brazil (OOSKAnews)

Rio de Janeiro state owned sanitation company Cedae will invest \$18 million USD in the expansion of sanitation systems to 19 cities mainly in the state's rural areas.

First movements are scheduled to start this year as the money is already reserved in the company's budget for this year.

Cedae, which is based in the Rio de Janeiro city metropolitan region, plans to build water distribution and sanitation systems within the upcoming 12 months.

Cedae Plans Debenture and IPO Launch for 2009

RIO DE JANEIRO, Brazil (OOSKAnews)

State-owned company Cedae plans to raise both the national and international market up to \$173 million USD through a debentures offering to be launched between December 2008 and January 2009.

This is the first step to capitalize the company for the IPO operation at Bovespa, the São Paulo State Stock Market, to be developed in mid-2009.

The objective is to raise around \$1.2 billion USD with the Bovespa operation.

The money will fund expansion projects both in domestic as well as in industrial areas. In this case, the expansion is connected with the tremendous growth of the oil sector in the state of Rio de Janeiro specifically on two projects — the petrochemical sector in Itaboraí city and oil exploitation in Macaé city.

Ninety-nine percent of Cedae's voting capital belongs to the Rio de Janeiro State government.

In 2007, the company invoiced \$1.1 billion USD by providing water and sanitation services primarily to the metropolitan area of Rio de Janeiro city.



Brazil to Invest in Spring Water Improvements Near Dam Areas

BRASILIA, Brazil (OOSKAnews)

The Brazilian government announced in early October plans to invest \$54 million USD to build 2,548 housing units for poor families residing in high risk or illegal areas of Billings and Guarapiranga dam, the two major sources of water in São Paulo.

The urbanization project will focus on improving the quality of the spring water that supplies almost 5 million people in Brazil's largest city, São Paulo.

State authorities will supplement with an additional \$5.3 million USD of federal financing.

This is the fourth phase of a joint venture by the federal and state

governments to bolster housing construction for low-income families and, at the same time, improve the quality of water.

The entire program has \$336 million USD available for urbanization of the dam's surroundings.

In addition, President Luiz Inácio Lula da Silva says the government has up to \$400 million USD to invest in the region for sanitation and urbanization.

The entire sanitation and urbanization projects will benefit almost 45,000 families with average incomes of \$400 USD who live in 45 favelas (slums) built illegally in the dam's surroundings.

The government has an overall plan to build up to 5,340 housing units.

Ministry of Cities, Márcio Fortes, says the money will be used to improve water networks with installation of individual hydrometers in each household and the construction of sewerage and drainage systems now sorely lacking in the favelas.



Paraíba State to Build \$278 Million Water Pipeline

JOAN PESSOA, Brazil (OOSKAews)

By the end of the year, the government of the northeastern state of Paraíba plans to solicit bids for the construction of a 112,440 kilometer pipeline to transport water from Acauã dam to 200,000 people in 12 cities.

The project, estimated to cost \$278 million USD, will be included in the federal governments Growth Acceleration Program (PAC) program.

This means that official banks, such as the National Bank for Economic and Social Development (BNDES), would see the project as



IDB Supports Panama Canal Expansion with \$400 Million Loan

WASHINGTON, D.C. (OOSKAnews)

The Inter-American Development Bank (IDB) has approved a \$400 million USD loan for the expansion of the Panama Canal, currently the largest infrastructure project in Latin

America.

IDB President Luis Alberto Moreno said in a bank news release the IDB was happy to contribute loan funds towards the expansion of the iconic Canal, despite the recent world economic crisis.

“The IDB has been a steadfast partner for Panama for nearly 50 years,” he said. “We are proud to assist in this key investment in the future of Panama’s greatest national asset, especially when conditions in international financial markets are so uncertain.”

IDB’s Board of Executive Directors approved the loan for Autoridad del Canal de Panamá (ACP), the autonomous Panamanian government-owned body which operates and manages the 77 kilometer canal linking the Pacific and Atlantic oceans.

An estimated 5 percent of the world’s shipping passes through the Panama Canal each year.

However, the major expansion is required to accommodate larger ships and to ensure long-term competitiveness of the waterway, in order that it continue to serve in its vital role in trade.

The ACP is looking to raise around \$2.3 billion USD in loans towards the estimated \$5.25 billion USD expansion of the canal. Planned to be ready for the canal’s 100th anniversary in 2014, the expansion program will include the construction of a third set of locks; the dredging of the canal at both the Atlantic and Pacific entrances; the deepening and widening of the existing canals and the raising of Gatun Lake, which provides the waterway with its fresh water, according to ACP.

“This announcement is a matter of national pride for Panama, because it is the result of the business model we use to manage the Canal to ensure its efficiency, safety and profitability,” said ACP Administrator/CEO Alberto Alemán Zubieta.

The ACP has already called for tenders for the next phase of the expansion program, a dry excavation project to help create expansion’s critical access channel that will link the new Pacific locks with the Canal’s existing Gaillard Cut (the narrowest stretch of the Panama Canal), said an ACP statement.

“[The tender process] is yet another example that the Expansion Program is on track and proceeding with great progress,” said Executive Vice President of Engineering and Program Management Jorge L. Quijano. “We look forward to selecting the best firm for the job, as we complete this crucial component of expansion.”

The IDB said it had provided the Panamanian government support in the evaluation of expansion alternatives for the canal and in the preparation of a sustainable development strategy for the waterway. It also helped finance studies to quantify the benefits of the expansion program.

Chile Plans to Raise Water Prices This Month

SANTIAGO, Chile (OOSKANews)

Water prices in Chile are expected to rise again this month in line with the country’s rising rate of inflation. Chileans will face an average 3.4 percent rise in water costs in October, bringing the year-to date increase in water costs to 12.4 percent.

The price rise this month is the second since August 2008, when the water costs were raised by an average of 5 percent. The water price increases will not be uniform across the country and will vary according to where the residents live, according to Chile’s Superintendent of Sanitary Services (SISS), which controls water and sanitation services in urban areas of the country.

SISS said water supply and sanitation companies are lawfully following Chile’s Consumer Price Index (IPC) to keep up with inflationary increases in the world economy. The recent price increases have come in the wake of a series of rises in the nation’s main economic indexes, which reflect inflation.

Chilean water utilities have reportedly been legally authorized to readjust service rates whenever these economic indexes show variations over 3 percent.

Local news reports indicated that SISS residents in the Los Rios Region, where water utility company Aguas Decima supplies and treats water, will see a 4.3 percent price increase this month.

Consumers in Arica, Parinacota and Tarapacá will see their water rates go up by 3.8 percent. These regions are supplied water by Aguas Altiplano.

Santiagounos served by Aguas Andinas will see their water bills increase by 3.7 percent, while those served by Aguas Cordillera will see a rise in prices to the tune of 2.5 percent. Aguas Cordillera serves three of Santiago’s wealthiest municipalities -- Vitacura, Las Condes and Lo Barnechea. Aguas Cordillera is a sanitation company that operates as a subsidiary of Aguas Andinas.

Aguas Andinas is Chile’s largest sewerage and potable water utility, servicing a total 1.36 million clients in the country’s metropolitan region with 100 per cent drinking water coverage and 99.9 percent sewerage coverage.

Chile is the only country in Latin America that has privatized its entire urban water supply and sanitation sector. It has also managed to transfer ownership of assets to the private sector.

Spanish group Agbar controls Aguas Andinas through Chilean wa-

ter group Inversiones Aguas Metropolitanas (IAM), through which it has a 51.2 percent stake in Aguas Andinas.

According to news reports, Aguas Andinas has just started a \$113 million USD cleanup project -- Urban Clean Mapocho -- on Mapocho River. The project is scheduled to be completed in 2009 and calls for the treatment and redirection of all of the wastewater that is currently dumped into the Mapocho River.

Once the project is completed, Santiago will be the first Latin American capital to recycle all of its wastewater.

The plan will redirect water from all 21 sites into a 28-kilometer

duct that will run parallel to the Mapocho River and deposit the dirty water in western Santiago's La Farfana and El Trebal treatment plants.

The hike in water costs come in a year when Chile suffered its worst drought in almost eight decades and the government was forced to hand out emergency drinking water to several parts of the country.

The drought in the Andean nation was blamed on the weather phenomenon La Nina.

ENVIRONMENT & WASTE

Guarany Aquifer is 10 Percent Smaller

SÃO PAULO, Brazil (OOSKANews)

Considered a true "sea" in the subsoil, Guarany Aquifer – a tremendous mass of 40,000 cubic meters of fresh water that runs under the territories of Argentina, Brazil, Paraguay and Uruguay – is almost 10 percent smaller than previous estimates according to researchers from São Paulo State University (UNESP).

Using new geological parameters, the scientists, members of the Environmental Protection and Sustainable Development of the Guarany Aquifer System (SAG), gathered specialists from the four countries and concluded that the aquifer has around 1,087 square kilometers rather than the previously estimated 1,200 km² area.

SAG was organized by officials from the the four countries with financial aid from international donors, including the International Atomic Energy Agency.

They plan to develop a monitoring system for the aquifer, considered the world's largest, that would help governments create public policies to support the use of the aquifer's reserves.

The researchers are now creating a hydrogeological map of the Guarany Aquifer, expected to be finished by the end of the year.

The study found that the Guarany Aquifer has no significant divisions and conforms itself as a continuous mass of circulating water.

However, they also discovered that the Guarany Aquifer is fed by external waters flowing a lower speeds than expected.

This raises the risk of contamination – mainly from large agrobusiness industries.

According to Didier Gastmans, a professor at the University of Mato Grosso do Sul State, these findings, contrary to previous studies, would indicate that the Guarany Aquifer cannot be used to feed the needs of that population that inhabits the regions surrounding the aquifer.

Previous estimates calculated that the recharge of the aquifer would reach 160km of water per year but these estimates have dropped dramatically due to recent studies of Dr. Chang Hung Kiang, also of UNESP University.

In fact, Kiang has determined that the recharge rate is no larger than 5km per year

Potability of the Guarany Aquifer waters also differs from region to region depending on the concentrations of different polluter components.

Looming Water Quality Crisis in Northern Peru

LIMA, Peru (OOSKANews)

Peru's Direction of Environment, under the Ministry of Health, issued a warning last week about the deteriorating water quality in seven of Peru's northern states. High quantities of untreated wastewater and heavy metals left behind by mining operations are threatening public and environmental health in the region.

According to the last census, only 23 percent of wastewater in Peru is treated before being released into the environment.

The Northern region's track record is much lower. For example, in the region of Cajamarca, only 3 percent (7 of 200 systems) include a wastewater treatment process. Frequent testing for E.coli in the rivers of northern regions are four times the amount permissible by law.

In the mining regions of Tumbes and La Libertad, arsenic, manganese, and iron frequently appear in tests above permissible limits.

Alfonso Morales Peralta, the Executive Director of Environmental Health told El Comercio, "I don't know how to solve the problem since citizens always erect new plazas or community centers over water and wastewater projects."

Peru's decentralized budgeting process allows citizens to prioritize which public infrastructure projects are implemented each year, and water and wastewater does not appear to be a priority.

This phenomenon is echoed in a July 2008 World Bank baseline study on perceptions of water quality and quantity and the links between quality and health.

While 56 percent of people felt that wastewater should be treated before being released into the environment, only 27 percent of people interviewed in four cities throughout Peru said they would be willing and able to increase their monthly water tariff to cover treatment of wastewater.

When the results are disaggregated to the same northern region that the government is worried about, the percentage of people willing and able to pay skyrockets to nearly 60 percent.

Furthermore, only 2.3 percent of people interviewed (sample of over 1,300) found that the contamination of water was the most urgent environmental problem facing Peru.

Poor quality of water seems to be an expectation, not the norm, as over 90 percent of people mentioned that they treat their water before consumption.

The World Bank is launching an intensive communications campaign, via radio, to promote a culture of water conservation and to try to change these perceptions that wastewater treatment is not a valuable expense.

Colombia Plans \$4.2 Billion USD Investment in Water, Sanitation

BOGOTA, Colombia (OOSKAnews)

Colombia plans to invest over \$4.2 billion USD on water and sanitation during the 2016-19 period and will expand wastewater treatment to 50 percent. A major portion of the proposed investment, \$3.2 billion USD, is slated to flow in potable water and sewerage services during the four-year period.

The investment is aimed at increasing the coverage in the country's urban areas, where the government priority is to increase services to the poor. The investment will go toward setting up potable water treatment plants and water and sanitation networks along with their respective infrastructure. The projects on potable water and sanitation will be developed together with housing and urbanization programs.

The amount of \$4.2 billion USD is part of the government's overall \$14 billion USD investment plan to build potable water treatment plants as well as water and sanitation networks, to be implemented during the 2007-19 period.

Local news reports indicate that Colombian authorities expect water and sanitation investments to reach \$4.5 billion USD during the 2007-10 period, of which, almost half, or \$2.7 billion USD is expected to be invested to increase urban potable water and sewer-

age services.

During the four-year period ending in 2019, water and sanitation investment in rural areas is expected to reach \$432 million USD, covering the expansion of services in isolated and small communities. During this time, investment in wastewater treatment will reach \$155 million USD.

The government will also spend \$394 million to improve the final disposal of domestic solid waste, which forms part of another plan to eradicate open air dumps and reduce pollution, an official from the country's national planning department (DNP) was quoted as saying in local news reports.

The investment plan has been designed based on the UN's Millennium Development Goals. Though experts predict the country is expected to slip in meeting the targets by 2015, the government has stepped up efforts to pass on the benefits to as many people as possible.

The overall investment plan is also part of a national effort to provide urban and rural sanitation services to most of the population. This is seen bringing down health risks and optimizing public investment to reduce poverty.

The investment is proposed to be financed through contributions from the government and its national budget besides the local entities and water utilities.

A major portion of the investment, \$2.3 billion USD will be covered by the Sistema General de Participaciones (SGP) Agua, or general revenue sharing system for water issues.

Local entities will provide \$549 million USD, water utilities will bring in \$1 billion USD while the national budget will cover \$273 million USD.

Overall, the national budget is expected to cover \$1.2 billion USD over the 13-year period, while SGP will provide \$6.7 billion USD. Local entities will contribute \$2 bil-

lion USD and water utilities will invest \$4.2 billion USD in the initiative.

According to the DNP official, the initiative also shows that the government policies encourage long-term investment and development and are tuned towards people and not merely for presidential terms.

When the current program ends in 2019 and the government evaluates the achievements made during the last few years, a new plan is

expected to be announced.

Water supply and sanitation coverage in Colombia has improved over the past few years, but rural areas still lag behind.

Between 1990 and 2004, access to sanitation increased from 82 percent to 86 percent, but access to water increased only marginally to 93 percent from 92 percent.

The quality of service available also remains largely inadequate

GOVERNMENT MOVES

Sunass to Offer Financial Help for Wastewater Treatment

LIMA, Peru (OOSKANews)

Peru's national regulation authority for sanitation, Sunass, has announced it will provide financial support for the construction of industrial wastewater treatment plants in the country.

President of the authority José Salazar told media that the \$5 billion USD investment in the country's sanitation will include the availability of low-interest financing through a trust fund set up for such a purpose.

"Asking mid-sized companies to pay the cost of building wastewater treatment plants is unrealistic as their incomes are not sufficient," Salazar said. "With the new financing mechanism, firms can work out investment plans together with the bank, using the fund as a guarantee."

The president of the authority also declared Sunass will introduce a new range of differentiated water rates in November to encourage firms to invest in wastewater treatment. All water treated under the initiative would be recycled back into the companies' operations.

"In November, we will present the new system of differentiated rates, which will be sustained by the trust fund," Salazar said. He added that most larger firms had already signed on to better treatment procedures under stricter guidelines put forward by the authority and called for assistance from local mayors to introduce the new pricing plan as they carry sway with smaller firms.

"In practice, big industries have already committed to and have changed their processes, only small companies are still contaminating," he said.

The regulatory authority has recently signed an agreement with the development bank Cofide which will use its expertise to structure each wastewater project individually to best facilitate the required funding.

Salazar added the initiative was designed to attract pension fund investment in the wastewater infrastructure, a move which is expected to provide up to 40 percent of the funds for the venture.

It also hopes the financial inducement to construct wastewater facilities will improve the country's trade competitiveness where companies, once they invest in the project, could take advantage of Peru's 10 free trade deals which require exporting firms to treat their wastewater.

Finance for wastewater projects will begin to be structured by 2009, said the authority.

The semi-autonomous Sunass regulates and supervises water service providers in the country as well as approving tariffs, establishing norms, imposing sanctions for violations of the law, and resolving user controversies and complaints.

Decenal Sanitation Investment Plan Criticized

BRASILIA, Brazil (OOSKANews)

Scheduled to be launched by the end of the year through a joint action of four ministers, Brazil's Decenal Sanitation Investment Plan aims to zero the deficit of millions of residencies with no access to fresh water and sanitation services within 10 years.

The total cost is estimated at \$43.3 million USD.

However, civil society groups say the plan is “local and fragmented” and does not address the country’s historical giant deficit in water and sanitation services.

Preliminary details of the plan were released on October 9 in a press conference of the Ministers of Environment, Health, National Integration and Cities, the latter to be the leader of the governmental consortium.

According to Ministry of Environment Carlos Minc, each of the projects listed under the Economic Growth Acceleration Plan (PAC), a package of construction projects in the fields of energy transportation and other infra-structure interventions, will generate sanitation projects as a counterpart.

“For instance,” said Minc, a grassroots environmentalist who turned into a specialist to make projects environmentally feasible when converted to government programs, “the construction of the two big hydroelectric plants on the Madeira River in Rondonia State will lead to the construction consortium adjusting the plans with the government to build up the sanitation structure in the capital Porto Velho.”

“Twenty-two million USD in sanitation projects is peanuts compared to the total cost of the plants, of about \$9 billion USD,” he said.

SUPPLY

Guyana Water Inc Says Improved Water Supply Available in Georgetown by April

GEORGETOWN, Guyana (OOSKANews)

Two new water treatment plants cited for construction in the city of Georgetown, capital of Guyana, will be ready for use in April 2009, said the Chief Executive of Guyana Water Incorporated (GWI) Karan Singh earlier this month.

Speaking to reporters during a visit to one of the two plants, Singh said the facilities will be capable of producing up to 12 million liters of purified water daily with over 40,000 of the city’s population benefiting from the improved supply.

He added the \$600 million USD project, which was funded by the Inter American Development Bank (IDB), was on target and expected to be complete by April 24, 2009.

Work on the project commenced in June and Guyana press sources

The same mechanism applies to the construction of nuclear plants in Rio de Janeiro State. These projects can easily fund \$15 million USD projects in the city of Angra dos Reis,” he told journalists.

“It is the kind of fragmented perspective, founded in punctual interventions that contribute very little to the effectiveness of the project as a whole,” said the National Urban Sanitation Front, a coalition of civil society, environmentalists and trade union groups, in a public statement.

“Facing big regional problems or resolving problems that affect whole basins is much more difficult with this vision,” said the Front.

All of these infra-structural projects, mainly those based in the Amazon region, are controversial and face legal contestation. The plants in the Madeira River and the nuclear plants in Rio de Janeiro, mentioned by Minc, are some of them.

According to Macio Fortes in the same press conference, another action of the plan would be the orientation of sanitation programs toward the revitalization and de-polluting of hydrographic basins.

Sanitation companies would be reimbursed for each cubic meter of waste that was treated and returned clean back to rivers and the

have quoted GWI sources as saying the work is currently 20 percent complete after the contract was handed to a Trinidad firm UEM.

The chief executive told reporters that the water treatment plants would improve the current poor quality of the water in the capital which has a polluted reddish brown quality. He said the treated water would be “as safe as any bottled water” and said residents would be able to use the water without fear of any contamination.

The filtration system works by collecting raw water and transporting it to two aerators which are located above retention/oxidation tanks. Iron in the water reacts with oxygen in the air at the aerators and the liquid iron forms solid particles which are then removed. The water is then taken to the six Rapid Gravity Filter units, where any remaining iron particles are removed using media such as various grades of sand and gravel.

As water is pumped into a storage tank, chlorine is used to disinfect it from any other impurities before consumption.

The project is part of three-part strategy by the IDB to fund and improve the quality of Georgetown’s water supply and sewerage

capacity. According to the IDB, the aims of the projects are: (a) further improving the availability and quality of potable water and the reliability of the distribution system; (b) improving the sewerage system; and (c) strengthening the Georgetown Sewerage and Water Commissioners, the service provider for Georgetown at the time of the project's approval and one of the two predecessors of GWI.

Costs Expected to Increase at BHP's Escondida Mine as Desalinated Water Use Rises

SANTIAGO, Chile (OOSKANews)

Costs at BHP Billiton's giant Escondida copper mine in Chile will rise by around 10 to 15 percent when the company begins to use desalinated water from the coast from 2012, a company spokesman has said.

Escondida services and processes manager Patricio Ibáñez Martínez told media that desalinated water from the second plant to service the mine from Puerto Coloso would increase cash costs.

"Water from the desalination plant will be used to compliment current water sources and will not be used to replace them. We are still looking for other water sources," Ibáñez told reporters at a water management conference in Santiago, Chile.

Using water from desalinated seawater was approximately five times as expensive as that from fresh water sources such as underground aquifers, said a mine spokesman.

The company's environmental impact study statement has said the \$3.5 billion USD desalination plant will send 3,200 liters per second of desalinated, industrial-quality water around 180 kilometers to the mine site, which sits at 3,100 meters above sea level.

The plant has an expected life span of 40 years, said the company.

BHP Billiton says it hopes to receive the necessary approvals and begin work on the expansion project by the end of 2009, the newspaper The Australian reported.

The Escondida copper mine is situated in the Atacama Desert, 170 km southeast of Antofagasta in northern Chile, and is the largest in the world, with 9.5 percent of world output and 26 percent of Chilean production, according to the US Geological Survey's preliminary estimates of 2007 world mine output.

Its copper production in 2007 was 1.483 million tons, worth

around \$10.12 billion USD.

The mine is owned by BHP Billiton, who control 57.5 percent with the Rio Tinto Group owning another 30 percent of the mine. Japan's JECO corporation has a 10 percent interest with a branch of the World Bank, the International Finance Corporation, the remaining 2.5 percent.

Water Use Charges in Paraíba do Sul Basin to Reach \$4.5 Million in 2008

SAO JOSE DOS CAMPOS, Brazil (OOSKANews)

The charge for the use of water in the Paraíba do Sul hydrographic basin must reach, by the end of 2008, a total tax of \$4.5 million USD.

The prediction was announced by the Agency of Paraíba do Sul hydrographic basin and the Water National Agency, the regulatory agency of the Brazilian Government.

Since the beginning of the charging process, in 2003, it has raised the sum of \$17 million USD. From 2004 to 2007 the money raised was invested in the basin area as follows: 78 percent in structural projects (construction of water treatment stations, residual treatment), 15 percent in planning projects and 6 percent in management projects, which includes campaigns and environmental education programs.

According to Hendrik Mansur, AGEVAP's management coordinator, in 2008 the strategy for the use of the money raised was different, with only 34 percent being invested in structural projects.

"The basin committee, which decides the best investment strategy, believes that from now on it should have more effort to use the money in projects that could lead to new ways of raising more funds to the recuperation of the river," explained Mansur.

Paraíba do Sul is one of the most important rivers in Brazil and it is located between the two largest Brazilian cities: Rio de Janeiro and São Paulo.

It crosses along 1.12 kilometers through a region with high population density and great concentration of industrial activities. The whole hydrographic basin comprehends three states in the south-east – Rio de Janeiro, São Paulo and Minas Gerais.

The charge for the use of water in Paraíba do Sul basin was the first one implemented in the country.

LOCAL PRESS REPORTS

REGIONAL MEDIA BRIEFS

BRAZIL

Water Forum of the Americas Scheduled for November

FOZ DO IGUAÇU

The Americas Regional Consortium (ARC) is organizing the "Water Forum of the Americas," scheduled to take place on November 24-25 in Foz do Iguaçu, Paraná, Brazil.

The ARC is responsible for the Regional Preparatory Process for the 5th World Water Forum.

The Water Forum of the Americas (WFA) will bring together professionals specialized in water resources management.

Participants will range from government representatives to members of civil society, academia and water user organiza-

tions as well as politicians and decision-makers.

The agenda will focus on the state of water policy and management in the Americas and developing adequate policy solutions to address issues posed by global changes in general and climate variability and change, in particular.

During WFA, participants will

analyze the development and progress that the 30 countries of the four sub-regions (North America, Central America, Caribbean and South America) achieved over the last decade in the area of water policy.

Source: WASH Latin America

CANADA

BioteQ Environmental Technologies Named Top Exporter

VANCOUVER, B.C.

For the second year in a row, BioteQ Environmental Technologies, Inc., a leader in the treatment of metal and sulphate contaminated water, announced it has been named one of British Columbia's Top 25 Exporters by

the Canadian Manufacturers & Exporters Association.

The awards recognize the positive impact exporters make to the provincial economy.

"These awards underscore our international growth and the increasing importance of environmental sustainability to the mining industry," said Brad Marchant, CEO, BioteQ Environmental Technologies.

"We have five water treatment plants in operation around the world, including new plants commissioned this year in Mexico, Australia, and China and another eight projects are in development in Chile, China, Mexico, Canada and the US. It is an honour to be recognized for the work we are doing to reduce the environmental liability associated with industrial wastewater."

BioteQ builds, owns and operates water treatment plants for the world's mining companies and utility operators. BioteQ's technology treats acid mine drainage and other metal-laden wastewater producing clean water that can be safely discharged to the environment.

BioteQ is headquartered in Vancouver, Canada.

Source: Hazmat

DOMINICA

Hurricane Omar Hits Dominica

ROSEAU

While leaving little damage in St. Croix, Hurricane Omar, hit The West Coast of Dominica hard last week leaving around

30 families homeless.

Landing around midnight on October 15, the Office of Disaster Management reported that there was widespread infra-structural damage to roads, sea defenses, ports and utilities from sea swells.

Located in the south, the community of Scotts Head, with a population of 450, was cut off from the rest of the country as there was extensive damage to the coastal road leading to that community.

They were affected by loss of water, electricity and landline

telephones.

Source: SmallShop-Caribbean News

MEXICO

Water Project Benefits Mexican Village

BELLEVELLE

Now, in its seventh year, The Tlama Clean Water Project will be hosting a Mexican Fiesta and Silent Auction on November 7 at the St. Theresa Catholic Secondary School.

This annual event helps raise money for the Nahua villagers of Tiamacazapa, Mexico. "The Tlama Clean water project has been in existence for eight years, and our sole purpose is to support the work of an organization in Mexico that used to be called

Caminamos Juntos meaning walking together, and is now called Atzin which is a Nautl word for sacred water," said President Janice Brown.

The town of Tlamacazapa is located in the mountains of central Mexico. Villagers live in extreme poverty plagued by malnutrition and parasitic infestations due to an inadequate water supply.

According to the Caminamos Juntos website, "in the dry season, poor villagers wait hours for water that trickles into the four main village wells from cracks in the limestone bedrock. In the rainy season, these wells fill with a dirty runoff of garbage and

excrement."

"There were quite a number of people in the Belleville area that have visited the community through an educational program in Mexico," said Brown. When the group realized there was a way of supporting the community of Tlamacazapa through Atzin they created the Clean Water project that holds events like the Mexican Fiesta."

Brown said that the annual fiesta is their primary fundraiser. They have raised over \$100,000 USD to support the community.

The Tlama Clean Water Project is located in Belleville,

Ontario, Canada. A team of supporters will be at the fiesta to talk about their ongoing water sanitation work and education initiatives.

Co-President of The Tlama Clean Water Project Tony Orrick will be attending.

Orrick, a member of Loyalist College's IT support team, has visited Tiamacazapa twice through other social justice groups.

"You become overwhelmed with the feeling that you need to do something about it," said Orrick "You can't get over what you've seen."

Source: Pioneer Plus

PUERTO RICO

Heavy Rains Drench Puerto Rico Leaving Four Dead

SAN JUAN

Puerto Rico suffered from a deluge of heavy rains last week that turned hillside streets into torrents of water. Four people died.

Streets and neighborhoods were flooded and firefighters and rescue crews focused on

helping stranded people in water-soaked towns along the southern coast.

Walter Torres Maldonado, the mayor of Penuelas, said that burial vaults were popping up out of the drenched ground.

Rivers crested their banks near the southeast town of Yabucoa.

Governor Ainibal Acevedo Vila stated that more than 24

inches of rain fell in 24 hours in Patillas county in southeastern Puerto Rico.

Police Superintendent Pedro Toledo said that among the dead was a 76-year-old man who suffered a heart attack as he swept water from his house.

According to Ramon Gonzales, president of Puerto Ricos Farmers Association, damage from the rains is estimated at

\$14 million.

Gonzales said that bananas and coffee were the crops hardest hit.

The storm arrived on the 10th anniversary of Hurricane Georges, which caused more than \$2 billion USD in damage in Puerto Rico.

Source: Alanat News

UNITED KINGDOM

Coates Concert to Benefit CAFOD

TOTTON

This coming Saturday, October 25, well-known singer, songwriter and poet Gerry Coates will be performing in

a free concert at St. Therese of the Child Jesus in Commercial Road, Totton.

Coates said that he wanted to do something when he learned that 5,000 children die every day from drinking dirty water.

When he discovered that a

simple water filter costing roughly \$54 USD can turn river water into safe drinking water and that for \$1,200 USD an entire community could have a clean supply of drinking water, he decided to raise money toward that effort by arranging a series of concerts across southern England

for CAFOD.

Admission is free but donations gratefully accepted.

Source: Southern Daily Echo

UNITED STATES

Imperial Valley Water Reservoir Construction Begins

LOS ANGELES, Ca.

U.S. federal and state officials gathered on Tuesday to launch the construction of a \$172.2 million USD reservoir that will store water from the Colorado River that otherwise would flow to Mexico.

The reservoir will provide more water for coastal Southern California, southern Nevada and central Arizona. Water agencies from those areas have agreed to split the cost.

However, it will mean less water for Mexico where farmers and cities are suffering from drought and a crippled infrastructure that is challenged delivering water to its customers.

In past years, Mexico has

received more water from the Colorado River than it was assured under a 1944 treaty.

The excess water was made available when Imperial Valley farmers had all they could use.

But the region is currently suffering a historic drought.

The U.S. Interior Department took a pro-active position by devising a project that will collect excess water from the All-American Canal rather than allowing it to flow south to Mexico.

"It's not Mexico's water," said Stella Mendoza, a member of the Imperial Irrigation District board. "It's California's water. Mexico has been using it for free all these years. They should have realized that someday it would stop."

Scheduled to be completed in August 2010, the reservoir is the second Imperial Valley project that will provide more

water for the United States and less for Mexico.

With a price tag of nearly \$250 million USD, a 23-mile stretch of the All-American Canal is being lined with concrete to prevent seepage.

The Mexicali Valley aquifer has been the beneficiary of seepage from the canal as well as excess flows from the Colorado River.

Research on the part of the Mexican government and San Diego State warn of grave consequences to thousands of Mexican farmers due to the double effect of lining the canal and reservoir projects.

Last year, Interior Secretary Dirk Kempthorne and his Mexican counterpart agreed to create a binational study group to explore ways that both countries could benefit from the Colorado River water supplies.

Kempthorne was the key

speaker at Tuesday's groundbreaking. With drought as a common problem, Kempthorne is optimistic that the two countries will find solutions.

Kempthorne called the reservoir "a triumph for common sense water-management policy" and noted that it brought together three agencies that have battled for years over allocations from the Colorado River.

The cost will be split among the Southern Nevada Water Authority (\$115 million), the Central Arizona Project (\$28.6 million) and the Metropolitan Water District of Southern California (\$28.6 million).

Each agency will receive a share of water in proportion to how much it has paid.

In times of surplus, the water will be sent from the All-American Canal into the 500-acre reservoir. When farmers

in the Imperial Valley need water, they can draw it from the reservoir.

Under the 1944 treaty, Mexico will still receive its allocation despite the canal lining and reservoir projects. The reservoir will be located next to the All-American Canal, 35 miles east of El Centro.

Source: Los Angeles Times



ITT Announces Partnership with Mercy Corps

CHICAGO, Ill.

As part of its corporate philanthropy program, ITT Watermark which was launched this summer, ITT Corporation announced on Monday a new partnership with Mercy Corps.

Since 1979, Mercy Corps, a global relief and development agency, has provided help around the world in times of disaster and conflict.

The partnership includes a three-year, \$1 million commitment to help provide safe water during emergencies created by natural catastrophes such as floods, droughts and earthquakes.

ITT's announcement was made from the Water Environment Federation's annual

conference in Chicago.

ITT will assist Mercy Corps' efforts by providing dewatering and water purification equipment. In addition, they will aid Mercy Corps' on-the-ground staff with rebuilding and recovery of water and sanitation infrastructure long after disaster strikes.

Mercy Corps works in tandem with the United Nations to address water and sanitation solutions when disasters strike around the world.

"Since the 2004 Indian Ocean tsunami, there has been an increasing number of devastating natural disasters, including Hurricane Katrina, the 2007 floods in Tabasco, Mexico, as well as the recent China earthquake and Myanmar cyclone. ITT has utilized its strength and expertise in fluid technology in each of these situations to meet the water needs of affected communities," said Steve Loranger, chairman, president and chief executive officer, ITT.

"Through ITT Watermark and our partnership with Mercy Corps, we are building on our legacy of commitment, formalizing our proactive emergency response strategy and increasing our ability to deploy our resources as quickly as possible."

"With ITT as a partner, we will have the opportunity to tap into their expertise and resources to respond quicker

and deliver real-time impact on the ground," said Nancy Lindborg, president of Mercy Corps. "Our priority is to help families rebuild their lives after a disaster and ITT shares our goal to implement solutions in a sustainable way that builds local capacity."

Source: ITT



Badger Meter Moves to Factory in Mexico

MILWAUKEE, Wis.

Meeusen is optimistic. He said that the company is currently in the process of moving into a new factory in Nogales, Mexico.

It is anticipated that they will be operational by the end of the year.

This move should not only expand production capacity but will also allow the company to reduce costs.

Milwaukee-based Badger Meter said last week that customers are delaying purchases.

They are not sure if this is a temporary trend or part of a longer-term slowdown due to the current economy.

Badger Meter makes high-tech residential water and gas meters. Third-quarter earnings were up slightly but

missed Wall Street's expectations.

Business has been brisk with more and more municipalities updating their water systems – specifically meters that read the amount of water being used.

Makers of drive-by utility meters, utility companies can save time and reduce staff by making in-person meter reading obsolete.

"We are pleased that we were able to increase sales and maintain earnings at a comparable level in the third quarter, given the difficult economic environment and a challenging comparison against our record third-quarter results in 2007," said Chairman Richard A. Meeusen.

Badger Meter reported its earnings rose 1.3 percent, to \$5.82 million USD, or \$39 cents a share, up from \$5.75 million USD in the prior year. Sales rose 9.6 percent, to \$68.8 million USD, up from \$62.8 million USD.

Recent price increases and higher sales of commercial water meters also contributed to the sales growth.

Meeusen is optimistic. He said that the company is currently in the process of moving into a new factory in Nogales,



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