

## Press Review 10/2012 - Vietnam, Water and Environmental Technology,

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No	Title	Date	Source	Region	Catalogue	Description
1	Craft pollution endangers northern rivers	1/10/2012	Vfej	Ha Nam	Pollution	The Nhue and Day rivers in northern Ha Nam Province are being seriously polluted by waste water from craft villages
2	Delta prepares for climate fight	2/10/2012	VN News	HCM	Climate Change	Prime Minister Nguyen Tan Dung has approved a water conservation programme for the Cuu Long (Mekong) Delta from 2012 to 2020.
3	Trillions of dong vanishes into the air, craft villages remain seriously polluted	2/10/2012	VN Net Bridge	Vietnam	Pollution	A big budget has been allocated every year to fix the environmental problems.
4	Lao Cai water system to cost \$30m	3/10/2012	VN News	Lao Cai	Water	The northern mountain province of Lao Cai plans to invest more than VND630 billion (US\$30 million) in a programme to supply clean water and improve sanitation from 2013 to 2015.
5	Song Tranh 2 hydro-power dam evacuation plan checked	3/10/2012	VN News	Quang Nam	Environment	Experts from Military Zone 5 yesterday inspected the evacuation plan for people living in earthquake-affected areas near Song Tranh Hydropower Plant.



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**Vietnamese – German Office for Water and Environmental Technology**

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6	VN, German state draw even closer	5/10/2012	VN News	Vietnam	Others	Viet Nam and the German State of Hessen will work together on a raft of key issues as they enhance their close co-operation.
7	Miners pollute household water	8/10/2012	VN News	Khanh Hoa	Pollution	Thousands of households in the central province of Khanh Hoa have been using polluted water over the past four months because of illegal tin miners upstream.
8	Residents still dump in cleaned-up canal	13/10/2012	VN News	HCM	Pollution	The HCM City People's Committee has ordered the Department of Transport to ensure districts and wards fulfill their commitment to keep the Nhieu Loc-Thi Nghe Canal clean and free of waste.
9	Cold spell, heavy rain likely to last five days	18/10/2012	VN News	Vietnam	Environment	A cold spell, hitting Viet Nam's northern region yesterday is forecast to last five days and cause heavy rain and flooding in many areas, according to the Central Hydro meteorological Forecasting Centre.



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10	Quake station is ready to rumble	20/102012	VN News	Quang Nam	Environment	Central Quang Nam Province's first earthquake observation station was put into operation yesterday in an area close to the Song Tranh 2 Dam.
11	State to clean up insecticide leaks	22/102012	Vfej	Vietnam	Pollution	A programme to curb pollution from insecticide residues will cost VND1.01 trillion (US\$48.4 million).
12	Tich River revamp urged to push on	25/10/2012	VN News	Hanoi	Pollution	The Ha Noi PPC has asked relevant parties to speed up the VND7 trillion (US\$336.5 million) project .
13	World Bank backs green projects	27/10/2012	VN News	Vietnam	Others	The World Bank will lend Viet Nam US\$50 million to build waste water treatment plants and improve environmental policies in industrial zones in four provinces of Viet Nam.
14	Growing capital feels the thirst	28/10/2012	VN News	Hanoi	Water	Ongoing urban expansion and growth in the capital has necessitated the diversification of water sources from its long-term sole dependence on underground water.



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15	Hydraulics scheming for the Central Region	29/10/2012	MONRE	Vietnam	Water Resources	PM has just released the Decision on approving the Hydraulics Scheming for the Central Region in the period of 2012-2020.
16	HCM City in top 10 for world's most air polluted cities	30/10/2012	Vfej	HCM	Pollution	.HCMC is ranked among the world's top ten cities for the worst air pollution in the world.
17	Vietnam announces green growth strategy	30/10/2012	Vfej	Vietnam	Environment	Restructuring and completing economic institutions for green growth is the major component of the national green growth strategy.
18	Water supply systems in rural area in need of public care	30/10/2012	MONRE	Quang Ngai	Water	It is to supply clean water for tens of thousands of local people across the province.
19	Storm Son Tinh leaves four dead	31/10/2012	MONRE	North VN	Environment	Son Tinh storm killed four people and injuring seven, thousands of houses were damaged, and six people remain missing.
20	Son Tinh storm tests forecasters	31/10/2012	MONRE	Vietnam	Environment	The Central Hydro-meteorological Forecasting Centre said that its forecasts for tropical storm Son Tinh, the eighth and strongest of this year, had been relatively accurate given its complicated movements.



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## **1. Craft pollution endangers northern rivers**

The Nhue and Day rivers in northern Ha Nam Province are being seriously polluted by waste water from craft villages, experts say.

The province's Natural Resources and Environment Department said the ammonia concentration in the rivers was 210 times higher than permitted while oxygen was 12 times smaller than the standard.

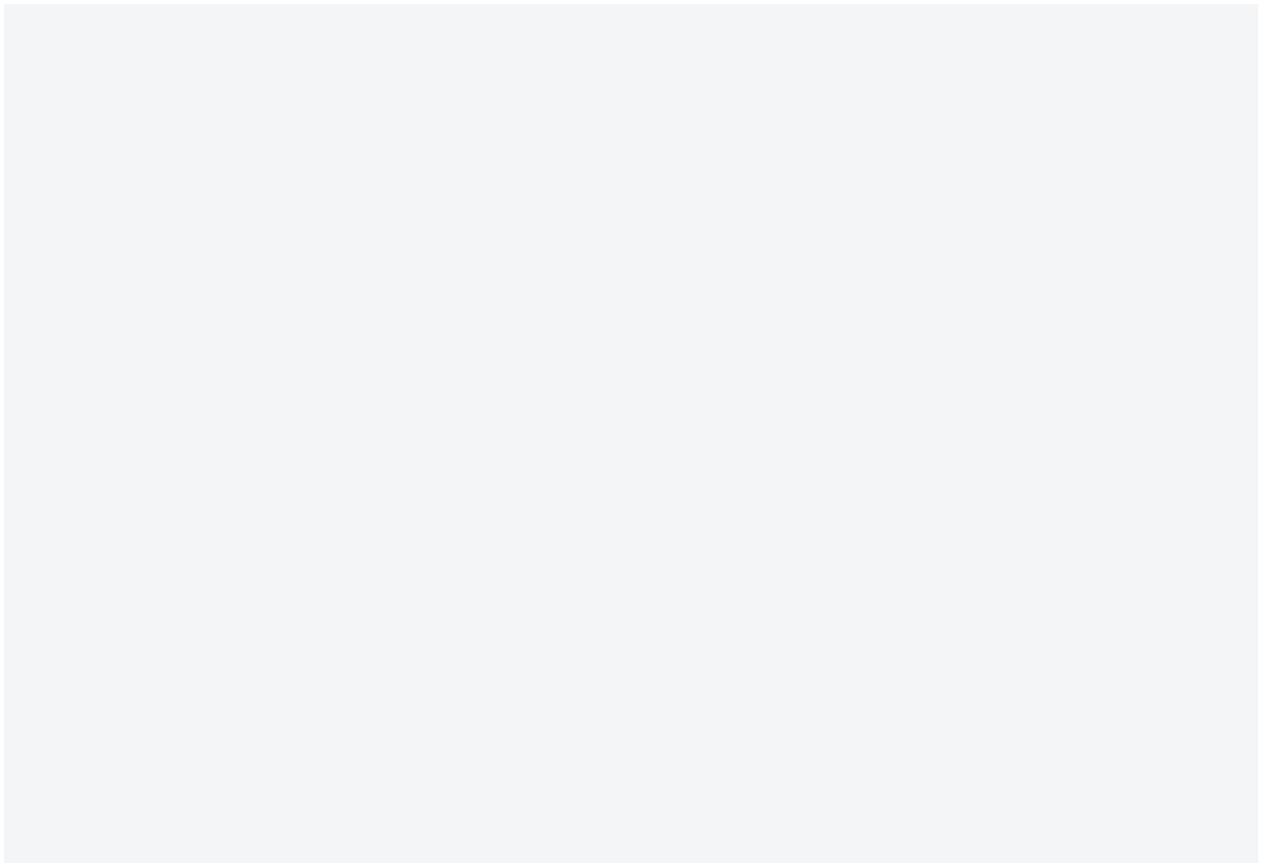
The pollution was alarming and was seriously affecting aquaculture producers downstream, the department said.

Fish had died en mass and the river stank, it said.

The department did not recommend measures to clean up the environment but suggested local authorities be active to limit losses from aquaculture.

It also asked the local water company to ensure residents and producers had an adequate supply of clean water.

The Day is a major river in the north, running through Ha Noi, Hoa Binh, Ha Nam, Ninh Binh and Nam Dinh Provinces. The much smaller Nhue passes through Hanoi and Ha



## **2. Delta prepares for climate fight**

Prime Minister Nguyen Tan Dung has approved a water conservation programme for the Cuu Long (Mekong) Delta from 2012 to 2020.

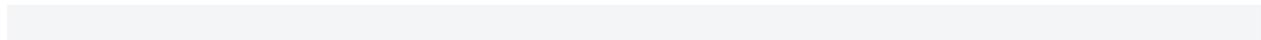
The programme, with orientation until 2050, aims to help the region face climate change challenges including rising sea levels. It covers 3.96 million ha in all the 12 delta provinces of Long An, Dong Thap, Tien Giang, Vinh Long, Tra Vinh, Ben Tre, An Giang, Hau Giang, Soc Trang, Bac Lieu, Ca Mau and Kien Giang as well as Can Tho City.

The programme is expected to benefit 32 million residents (estimated for 2050) in the delta, 12 million of them in coastal areas and the remaining 20 million people residing in flood-prone areas.

A total investment of VND171.7 trillion (over US\$8.2 billion) is required to implement projects under the scheme.

This includes VND85.26 trillion (\$4.1 billion) for irrigation works in the area between the Tien and Hau rivers; VND37.78 trillion (\$1.8 billion) for the Ca Mau Peninsula; VND33.98 trillion (\$1.6 billion) for the area to the left of the Tien River; VND13.44 trillion (\$646 million) for the Long Xuyen Quadrilateral; and VND1.22 trillion (\$58 million) for irrigation works on islands in the region.

The irrigation works will include sea and river embankments, canals, reservoirs, flood-control facilities, spillways and flood-control dams.



### **3. Trillions of dong vanishes into the air, craft villages remain seriously polluted**

A big budget has been allocated every year to fix the environmental problems. However, observers say if the huge sums of money cannot be spent in a reasonable way, the current situation would never be improved.

The government has approved the national program on pollution settlement and environment protection in 2012-2015, under which the 47 most seriously polluted craft villages would be dealt with first. Meanwhile, 100 percent of the existing craft villages have been found as polluted at different levels, which have turned into the big threat to people's health and put a hard pressure on the society.

According to the Ministry of Natural Resources and the Environment (MONRE), there are 4575 craft villages in Vietnam, including 1300 traditional craft villages, which generate 11 million jobs in rural areas.

The biggest problem now in the craft villages is that they do not have the waste treatment systems. The solid waste generated during the production has been thrown directly into the environment. Plant protection chemicals have been gradually absorbed into the earth and polluted the underground water, creating dangerous germs of diseases.

An inspection tour to the 100 metal recycling workshops in Chau Khe village of Bac Ninh province recently has found the SO<sub>2</sub> content in the specimen products higher by 48-60 times than the allowed level, the dust concentration exceeding the allowed level by 113-230 times, and the NO<sub>2</sub> by 50-76 times.

In the copper casting of Phuoc Kieu in the central province of Quang Nam, coal and FO oil has been discharged directly to the local canals, thus polluting the environment seriously.

The coal dust in the air from the craft village has been spread out to other localities, thus causing pollution to a large area, which is considered the main reason behind the 37 percent of patients hospitalized for respiratory relating diseases.

Ho Kien Trung, a senior official of MONRE, said the pollution has occurred in many other craft villages in Hoai Duc and Gia Lam districts in Hanoi, Dai Phu village in Ha Nam, aluminium casting Van Chang village in Nam Dinh, Man Xa in Bac Ninh, the liquor village of Yen Dung in Bac Giang province.

The craft villages gather small and medium scaled production households, located in residential quarters. The careers have been descended from generations to generations, while the technologies have not been upgraded, which makes the environment pollution here inevitable.

Also under the program on the pollution settlement in 2012-2015, the projects on gathering and treating waste water from urban areas which have been discharging directly to the Nhue, Day and Cau rivers in the north and the Dong Nai River system in the south would be implemented.

The total budget for the program is 5863 billion dong, a huge sum of money.

However, analysts still keep cautious when talking about the feasibility of the program. This is not for the first time the government budgets huge sums of money to fix the environmental problems in craft villages. However, the situation has not been improved much.

Dr Huynh Trung Hai from the Environment Science and Technology Institute has pointed out that the mismanagement has led to fact that the state's money has been wasted, because the money did not go to the right addresses.

#### 4. Lao Cai water system to cost \$30m

The northern mountain province of Lao Cai plans to invest more than VND630 billion (US\$30 million) in a programme to supply clean water and improve sanitation from 2013 to 2015.

Dinh Van Suu, director of the province's Centre for Clean Water and Environment Sanitation, said funds for this year's programme amounted to VND71 billion (\$3.38 million).

Next year it will triple to about \$10 million and remain at this level for the next two years.

The programme aims to ensure 85 per cent of households can access clean water. Sixty five per cent will also receive lavatories. About 50 per cent of farmers who raise animals will be guaranteed fresh, clean water and waste-treatment systems.

The programme will also make sure all schools and health centres have pure water supplies.

Suu said the province would give preferential treatment to people in disadvantaged and remote areas, including ethnic communities.

It would also accept cash contributions and work efforts from those benefiting to strengthen co-operation between authorities and communities.

To ensure the success of the programme, a communication and education network would be set up to create a positive attitude towards a clean and hygienic rural environment, Suu said.

The province would raise the capacity of staff who supervised the programme to make sure water supplies operated efficiently.

Nguyen Dac Thuy, head of the provincial co-ordination office for the project, said that it was an urgent issue.

Currently, only 18 per cent of the province's population have clean water; 39.6 per cent of households and only about half of schools have hygienic water-closets.

And only 33 per cent of farms at present have hygienic breeding facilities.



*Residents of Sa Pa District in the northern province of Lao Cai access clean water. The province will invest \$30 million to supply clean water by 2015.*

## **5. Song Tranh 2 hydro-power dam evacuation plan checked**

Experts from Military Zone 5 yesterday inspected the evacuation plan for people living in earthquake-affected areas near Song Tranh Hydropower Plant in central Quang Nam Province.

According to the plan, the military commanders of Bac Tra My District have developed evacuation strategies to prepare for the worst case scenario – the Song Tranh Dam breaking.

Thousands of households in the affected areas of Tra Doc, Tra Tan, Tra Son, Tra Giang communes and Tra My Town would be moved to the nearest high places.

At each point of evacuation, medical and search and rescue stations would also be set up. The number of stations would depend on the number of evacuated people and the water level.

The provincial Military Command would work with seven units of the armed forces, the steering committee of flood prevention and control and the department of health to prepare for any and all circumstances.

Major General Nguyen Quy Nhon, deputy commander of the Military Zone 5, stressed that it needed to take into account many details such as the distance between residents' homes and evacuation sites, means of transportation and the time it would take to evacuate.

Chairman of the district People's Committee Dang Phong said that the district would co-operate with authorised agencies to make detailed plans for relocation or evacuation in case the dam broke.

The district would help local residents understand the situation and react in time to any problem that occurred.

Recently, consecutive earthquakes ranging between 2-3.8 on the Richter scale have occurred near Song Tranh 2 Hydropower Plant in Bac Tra My District. They caused cracks in hundreds of houses and dozens of public works.

Currently, there is no water in reservoirs, but experts raised concerns that the increased water of the rainy season would raise the water level and might cause disaster if the dam is broken.

## **6. VN, German state draw even closer**

Viet Nam and the German State of Hessen will work together on a raft of key issues as they enhance their close co-operation.

Following a memorandum of understanding (MoU) on priority cooperation signed by Deputy Prime Minister Nguyen Thien Nhan and Hesse Minister-President Volker Bouffier in Ha Noi yesterday, co-operation will be promoted in economics, trade, investment, infrastructure, science-technology, transports-communication, culture, education-training, law-justice, banks, sports and tourism.

Under the MoU, both sides will assist small-to-medium-sized enterprises (SMEs) and Vietnamese enterprises' activities in Frankfurt, as well as reciprocating for Hesse enterprises in Viet Nam. They will also promote the SMEs exchange programme to increase competitiveness and exports, as well as the activities of the Viet Nam-Germany University.

The two sides will accelerate student and lecturer exchange programmes for general and vocational training, jointly involve in infrastructure, transport and communications and assist research and renewal programmes.

At a reception for Bouffier earlier the same day, Nhan said he hopes the Hesse administration will continue to encourage and assist its businesses to conduct investment and business activities in Viet Nam and facilitate Vietnamese enterprises' operations in Hesse .

He affirmed the Vietnamese Government's determination to build and develop the Viet Nam-Germany University into one of Viet Nam's finest.

Viet Nam hopes to receive financial assistance, curricula and lecturers from Hesse to enhance the university, Nhan said.

He also suggested the Hesse government assists Viet Nam in setting up a vocational training centre in the north to improve its human resources training and provide workers for German and other foreign businesses operating in the country.

For his part, Bouffier said the relationship between the two countries has been cemented by a project to build the campus of the Vietnam-Germany University in HCM City with German financial assistance.

The project, a symbol of the fine bilateral relations, helped the two peoples better understand each other and encouraged the exchange of experiences between the two countries, he said.

Many major businesses from the State of Hesse are now present in Viet Nam such as Braun Melsugen Group, Merck and Messer Group.

Last year, trade revenues between the locality and Viet Nam reached US\$970 million, a 100 per-cent increase on 2010.

## **7. Miners pollute household water**

Thousands of households in the central province of Khanh Hoa have been using polluted water over the past four months because of illegal tin miners upstream.

Many households in Khanh Vinh District have had to buy clean water for cooking, despite most of them being poor ethnic Raglay minorities who still use river water.

Nguyen Thi Thuan, of Khanh Vinh Town, lamented that water from her tap often was yellow and sometimes muddy. She had to collect rain water to cook.

Nguyen Thi Loan, another resident in the town, said her family used to spend about VND100,000 (US\$4.70) per month on clean water but now that had tripled.

"We reported the issue to local authorities, and they took water samples for tests but nothing has changed," she said.

Meanwhile, Vanh Khuyen Kindergarten, in Song Cau Commune, set up a water filter system which cost VND3 million (\$140).

The polluted water threatens their health.

Tran Hoa Nam, chairman of the Khanh Vinh People's Committee, said a report from the communes' medical stations showed about 70 per cent of women in the district suffered from gynaecological diseases.

Formerly no-one in the district had scabies but now some dozens of people were infected.

The committee and the district Agriculture and Rural Development Division had held meetings to discuss the issue, said Nam.

Representatives believed the river water was being polluted by the thousands of people from other provinces who exploited tin illegally in the Cau and Khe rivers in the district.

Water samples were taken by the district Agriculture and Rural Development for tests.

In the past two months, local authorities have dismantled miners' tents and confiscated their tools and machines, however, they returned to the site when inspectors left the scene.

In the meantime, the committee planned to mobilise youth in the district to join self-management groups who would link up with local authorities to stop the miners, said Nam.

\* Company fined for polluting environment

Central Da Nang City has fined Steel Structure Manufacture JSC, based in the Hoa Khanh Industrial Zone in Lien Chieu District, VND125 million (US\$6,000) for violating environmental regulations.

On September 6, environmental police found that it had asked Quoc Viet Ltd to destroy toxic waste. However, the Quoc Viet Company has no licence to transport or treat the waste.

## **8. Residents still dump in cleaned-up canal**

The HCM City People's Committee has ordered the Department of Transport to ensure districts and wards fulfill their commitment to keep the Nhieu Loc-Thi Nghe Canal clean and free of waste.

The local authorities have also promised to keep the streets running along the canal tidy.

In June the city officially announced the revival of the canal from being a dead one after being heavily polluted for several decades. Residents along the canal have, however, yet to change their habit of dumping waste into it.

They also occupy pavements and roads along the canal.

The committee also ordered the department to come up with a solution for these problems.

Meanwhile, the Urban Traffic Management Unit 1 has to complete installation of more rubbish bins on streets besides the canal before Monday.

After the high tide receded last week in many places the canal banks were found under a pile of waste, including daily household waste and even mattresses and blankets.

"Nearby residents dump waste into the canal night and day. Many others stop by to urinate in the canal in broad daylight," Nguyen Minh Hung, a resident of Le Van Sy Street in District 3, said.

Residents in other sections along the canal also said they witnessed similar acts. Tran Hong Nga, a resident living near the Sai Gon Zoo, said: "They dump even dead pets in the water. The city has just saved the canal but many residents do not protect it."

Truong Sa and Hoang Sa, the two streets that run alongside the canal, are filled with stalls selling food and drinks.

Nguyen Ngoc Cong, deputy director of the city Anti-flooding Programme Management Unit, said the city should carry out a communication campaign for protection of the canal and slap tough penalties on people dumping waste.

Cong told Sai Gon Giai Phong (Liberated Sai Gon) newspaper that large mobile rubbish bins should be placed in every section of the canal to collect waste.

The department has recommended penalties for dumping waste and discharging wastewater in the

## **9. Cold spell, heavy rain likely to last five days**

A cold spell, hitting Viet Nam's northern region yesterday is forecast to last five days and cause heavy rain and flooding in many areas, according to the Central Hydrometeorological Forecasting Centre.

Residents should watch out for strong winds, flash floods and landslides, said the centre.

In northern Lao Cai Province, which borders China, the temperature was below 25 degrees Celsius. Forecasts suggested that the temperature would continue to fall while the rain would continue for another day. Sa Pa would see temperatures below 15 C degree.

Director of Lao Cai Hydrometeorological Centre Luu Minh Hai said the whole system of rivers and streams in the province has seen flooding with water heights rising from 50 to 100cm. The flooding would continue for the next few days.

Hai said the province has asked relevant sectors and localities to closely monitor the rising water and alert residents about flash floods and landslides so they can protect livestock and plants from the cold and heavy rain.

Meanwhile in the southern region, especially HCM City, daily life has been strongly affected by the flooding.

The water level of flood-tide was forecast to go beyond 1.60m in the coming days in HCM City, exceeding the 2011 record of 1.59m.

Yesterday afternoon, several roads and residential areas in HCM City were seriously flooded as tidal water levels reached record highs.

According to the Southern Hydro-Metrology Station, the mid-October high tide this year would last from Oct 16 to 18, with the highest levels reaching 1.61 metres at 5.30 pm yesterday.

Many areas in HCM City would be flooded during this period, the station said.

Many residential areas and roads in HCM City were under water yesterday morning. Water levels began to rise at 4.00 am and reached their peak at 8.00 pm.

Most of the sections of National Highway No 1A in Binh Tan and Binh Chanh districts were flooded, with some stretches 0.6 metres under water. Hundreds of motorbikes broke down on these sections. In Ward Tan Tao A of Binh Tan District, many residents used sandbags and planks to prevent flood waters from flowing into their homes. The Vanh Khuyen Pre-school in Nha Be District's Phuoc Loc Commune has suffered heavy flooding in the last few days.

In southern Bac Lieu Province, one of the localities in the Cuu Long River Delta suffering the most significant effects of global climate change, a flood occurred early yesterday morning at Ganh Hoa meteorological station that was measured at 2.1 metres.

The province has about 125,000ha of shrimp ponds and 3,000ha of salt production as well as thousands of households, State offices and markets in low areas are at high risk of flooding. However, the construction of a 56-km East Sea dyke system which expectedly protect local residential and farming areas from high sea tides has not completed.

While the southern and northern people are dealing with heavy rain and flooding, the Central and Tay Nguyen (Central Highland) regions have been forecast to be sunny with temperatures from 25 to 33 C degrees.

## **10. Quake station is ready to rumble**

Central Quang Nam Province's first earthquake observation station was put into operation yesterday in an area close to the Song Tranh 2 Dam, which has been hit by more than 20 tremors and quakes since the start of last month.

The station will track and record the details of local quakes, which it will transmit to the Earthquake and Tsunami Warning Centre of the Institute of Geophysics in Ha Noi.

The centre in the capital will be responsible for giving regular quake warnings to local people.

The station is one in a network of five. The others are planned to be built in the Song Tranh 2 Dam area and neighbouring communes.

Dr. Nguyen Xuan Anh, director of the Institute, said the entire network would be operational by the end of this month.

Experts say that these stations will provide research and exact information regarding the development of earthquakes in the area. They will be able to forecast potential quakes and give advanced warnings of danger.

The stations have been commissioned as a response to the recent increase in quakes in the area. The most recent, measuring 3.5 on the Richter scale, struck the Bac Tra My District on Tuesday. The epicentre was eight kilometres below ground level.

## 11. State to clean up insecticide leaks

A programme to curb pollution from insecticide residues by targeting 100 hot spots throughout the nation will cost VND1.01 trillion (US\$48.4 million).

A Ministry of Natural Resources and Environment survey in 2009 showed more than 1,000 areas were polluted by insecticide residues. The most serious cases were in the central region, especially in Nghe An and Ha Tinh provinces.

In Nghe An alone there were about 270 polluted spots that needed to be cleared by 2025 and 31 in Ha Tinh. Most chemical warehouses built since the 1980s for storing war-time chemicals were now surrounded by residential areas. The warehouses had seriously deteriorated, the survey showed.

Currently, Viet Nam has no official report assessing the environment impact of insecticides nationwide and locals are still cultivating land, raising livestock and using water from wells.

Nguyen Xuan Hai, who lives about 500m away from an insecticide warehouse in Nghe An Province's Dien Yen Commune, said he knew the chemicals were toxic but he had become used to the smell. He said his family had no other place to go.

Hai said he was one of four labourers who had worked as porters at the insecticide warehouse. The other three had died of cancer and he was now suffering serious asthma.

In Ha Tinh Province's Khanh Loc Commune, the insecticide lindane is estimated to be 9.3 times higher than allowed in the environment near a primary school for 500 pupils.

"We told teachers to close all windows but the smell is really strong whenever it is sunny," principal Hoang Thi Ai Khanh said.

Tran Ngoc Dinh, of the Viet Nam Environment Administration's Department of Waste Management and Environmental Improvement, said lindane was among 12 poisonous chemicals that could exist in the environment for a very long time.

Lindane has been banned in 52 countries and restricted in 33 others.

"It's easy to treat pesticide residues in stations but treatment in polluted areas is quite complicated and costs a lot of money," he said.

"It costs \$2 to treat 1kg of chemical residue but up to \$200 to treat 1kg of chemical soaked into the land and up to \$2,000 to clean water resources."

Worse, in polluted areas, toxic chemicals were improperly buried, spilled or scattered during transport. This required comprehensive treatment on land and in water sources that cost much more money, he said.

In the past years, the Viet Nam Environmental Administration, in co-operation with local authorities, has built cement trenches in hot spots to bury hundreds of tonnes of insecticide residues.

The administration has also built fences, dredged canals with peat on the bottom and planted trees to improve the polluted land.

In Mau 2 Village in Nghe An Province, the administration built a 2m deep embankment around polluted areas and a kind of grass to absorb toxic chemicals in land.

Mau 2 Village resident Pham Trong Xuan said the smell had reduced and the water of his family's well was safe.

Apart from on-going measures, such as educating people in contaminated areas about risks and to avoid well water, the new programme would treat polluted land and water, isolate seriously polluted areas and build preventive systems to avoid spreading of toxic chemicals.

The ministry will be in charge of the programme.

## **12. Tich River revamp urged to push on**

The Ha Noi People's Committee has asked relevant parties to speed up the VND7 trillion (US\$336.5 million) project to revitalize the Tich River in the distant urban district of Ba Vi.

The project, started in May last year, includes dredging the polluted stream and diverting water from the Da River to freshen the 110-km long river and associated irrigation works.

In the first phase which ends next year, a 12-km canal will be opened in Thuan My Commune while the river is dredged.

In the two following years, work will be carried out in the rest of the river, including building roads along the river banks.

Land needed for the project amounts to nearly 320ha. Compensation will total nearly VND2 trillion (\$96 million).

In Thuan My Commune alone, the affected area is about 49ha, but the process is unfinished after more than a year.

According to the project management board, difficulties in identifying land users has slowed down land acquisition.

"This had led to a bottleneck in carrying out dredging and construction work," said head of the management board Nguyen Dac Thoa. Rain and floods had also affected progress.

Last year, the project investor, the Agriculture and Rural Development Department, paid VND218 billion (\$10.48 million) in advance to Binh Minh Jointstock Construction and Tourism Company to carry out the work.

However, only VND12 billion (\$575,000) is reported to have been spent on the project. The constructor said the rest of the money was spent on machinery.

This month, Ha Noi People's Committee vice chairman Tran Xuan Viet urged the contractor to finish land clearance and compensation by the end of the year to ensure progress was made.

### **13. World Bank backs green projects**

The World Bank will lend Viet Nam US\$50 million to build waste water treatment plants and improve environmental policies in industrial zones in four provinces of Viet Nam.

Under the project, at least eight waste water treatment systems are to be built in the provinces of Nam Dinh and Ha Nam in the north, and Dong Nai and Ba Ria Vung Tau in the south, the World Bank announced on Thursday.

The project would also support a comprehensive review of the legal and regulatory framework on pollution management, the bank said.

Funds for the project would come from the World Bank's International Development Association, which aimed to promote environmental sustainability.

Meanwhile, the French Agency for Development will help Viet Nam improve teaching and facilities at five vocational training colleges and schools through a loan worth 24.5 million euros (\$31.6 million) and a grant of 0.5 million euros (\$647,000). The Vietnamese Government will contribute \$5.1 million to the project.

Under the agreements signed in Ha Noi yesterday, the programme would provide more than 3,000 people each year with courses in welding, telecommunications, automotive technology, metal cutting and electricity.

At present, Viet Nam has about 1,200 job training schools and centres. It wants to have 45 per cent of the forecast 60.8 million people of working age trained by 2015 and 55 per cent trained by 2020.

## 14. Growing capital feels the thirst

Ongoing urban expansion and growth in the capital has necessitated the diversification of water sources from its long-term sole dependence on underground water.

A prospective alternative source could be the so-called "surface water" - water collected from a network of nearby rivers, as stated in a Prime Ministerial decision on water resources planning towards 2030 for the city.

According to forecasts by the municipal People's Committee, total water consumption per day would be about 1.2 to 1.5 million cubic metres in 2020, 1.9 to 2.3 million cubic metres in 2030 and 2.6 to 3.1 million cubic metres in 2050.

Ha Noi is endowed with abundant surface water which has been extracted for use since the French occupation around a century ago. However, perpetual extraction of underground water to cater for growing demand had resulted in negative impacts including depletion and quality deterioration.

The situation would only become worse if underground water continued to be the major source, senior scientists warned.

Director of Viet Nam's Environmental Science and Development Institute Le Trinh said that rapid urbanisation had increasingly disrupted the cycle of underground water.

"Normally, underground water is replenished by rainfall, but the urban area has been quickly filled with concrete buildings that in turn prevent a remarkable amount of rainfall from returning to underground aquifers. Instead, it goes into the sewers," he explained.

Trinh said if water was extracted at a faster rate than it was recharged, it would result in a lower level of underground water. Once it fell to a certain threshold, it would allow pollutants to enter the aquifers and the pollution would then be irreversible.

Some evidence of these incidents have been recorded.

According to a report led by Professor Tran Duc Ha of the University of Civil Engineering conducted in 2010, about 20 per cent of the wells had degraded and needed replacing. Some aquifers in low-lying areas in the south-eastern part of the city had already been contaminated with nitrate.

Tong Ngoc Thanh, director of the Northern Water Resources Planning and Survey Union, confirmed this but said the level was under control and contaminated water could still be treated with technology.

But Trinh insisted that if underground water was extracted at a huge volume, the negative impacts would be all the more prominent.

"The long-term impacts would be land subsidence on a large scale as has been demonstrated in Bangkok," he said.

Ha Noi has 20 factories and 15 stations that pump water from more than 280 wells, the majority of which are in the southern part of the Hong (Red) River. The current capacity of the whole water supply system is only 730 to 800 million cubic metres per day, well short of the forecast demand of 1.2-1.6 million cubic metres per day in 2020.

"That figure does not include the amount lost to leakage that could be as high as 30 per cent of the total water being transported within the pipe system," Trinh said.

The scientist, who is also the chairman of the Viet Nam Association for Environmental Impact Assessment, said that the need to find alternative sources of water therefore was imperative and a network of nearby rivers appeared to be a promising source.

He said the big rivers including the Hong and Da rivers had a relatively high volume of water which could provide a steady supply. What was more important was that the pollution in those rivers could be easily treated.

The Da River Water Plant is the first and only plant in Ha Noi so far to exploit water from a river. It is operating at a capacity of 300,000 cubic metres per day and is set to double that.

While it may take time to develop a fully-fledged system of plants that deal with surface water, we may tap into new sources of underground water, recently found at depths of 197 to 447 metres in the southern part of the city.

The Northern Water Resources Planning and Survey Union, in a ten-year project, has located a new Neogen aquifer which holds a huge volume of water of high purity. Its volume is estimated to be so big it may be possible to extract up to 1.64 million cubic metres per day.

"If there are economically viable measures to tap into this huge source, it will make a remarkable contribution to the city's total water supply," the union's chairman Thanh said.

## 15. Hydraulics scheming for the Central Region

PM has just released the Decision numbered 1588/QĐ-TTg on approving the Hydraulics Scheming for the Central Region in the period of 2012-2020 and orientations to the year 2050 in the situations of climate change and sea water rising, with the total estimated expenditure of 140,770 billion dong.

The scheming scope is in 12 provinces, cities along the Central Coast from Thanh Hoa to Khanh Hoa, including Phu Yen, the total natural area is 84,726km<sup>2</sup>, and a population of approximately 18 million.

The given overall method is to concentrate on repairing, upgrading the reservoirs to ensure the safety, particularly the small and medium hydraulics reservoirs; consolidating, upgrading the clue works, reinforcing, gradually modernizing the current systems; constructing and completing the major inter-region works to serve multi-target, supply water to industrial zones.

Besides, consolidate the river dyke systems, sea dyke systems; prevent and fight against regional flood in urban areas, focused residential areas; as for the Central South Region, be active in preventing and fighting as well as adapting to main season floods, prevent early and end-of-crop torrential rain.

Continue with constructing the operating process of the inter-reservoirs in the river basins during both the flood and dry season, to serve the multi targets.

As for the Ba River downstream, for water supply: the system of the works making use of general, supplementary water in the dry season, including the reservoirs An Khe-Kanak, Ayun Ha, Krong H'ngang, Song Hinh, Ba Ha river; upgrading 97 current works to irrigate 14,925ha, water 1,354ha of planting and breeding marine products; newly constructing 95 works to supply water for 24,593.5ha of plants, 210ha of bred marine products.

As for water drainage: cleaning out and dredging the axles of: Bao Dai, Hoa Tan, Hoa Thanh.

As for flood and torrential rain prevention: the total capacity of flood prevention at the above-mentioned works on main currents is 259m<sup>3</sup> (including the reservoirs of : An Khe-Kanak, Ayun Ha, Krong H'ngang, Song Hinh and Ba Ha river); consolidating, completing the river side dyke routes preventing torrential rain with the frequency of P=10% for Tuy Hoa city; dredging the currents with the flood avoiding axles for the rivers of Ba, Ky Lo, Ban Thach; consolidating and completing the coastal dyke routes to enable fighting against level 10-12 storm with the tide frequency of P=5.0%.

## **16. HCM City in top 10 for world's most air polluted cities**

Due to industrial pollution and vehicles, HCMC is ranked among the world's top ten cities for the worst air pollution in the world.

The results were announced at the National Scientific Conference of Vietnam Public Health Association with the participation of 300 domestic and foreign delegates.

An air quality monitoring project has been implemented in HCMC with six stations placed at key traffic points over the past 20 years. Another nine automatic stations were placed inside the city to measure the concentration of NO<sub>2</sub>, CO, dust and sound pollution along with radioactivity, toluene, xylene and benzene.

The results showed that the air pollution in the city has worsened.

In the dry season, dust concentrations were recorded at 1.47mg/m<sup>3</sup>, five times the national safe level, while 45% of the results on NO<sub>2</sub> concentrations and 67% of the results on benzene concentration also exceed national standards.

Associate Professor, Ph.D. Nguyen Dinh Tuan said HCMC is mostly polluted by benzene, NO<sub>2</sub> and dust. Though the concentration of lead in the residential areas is lower than allowable national standards, it is still higher than many other countries' standards.

Fuel could be the main cause for this pollution since HCMC currently has about 447,000 cars, five million motorbikes and 60,000 cars from other provinces. Frequent traffic congestion throughout the city also adds to the severe air pollution.

Though the dangers of air pollution are well known, such as respiratory diseases and lung cancer, they are still ignored by many people due to the lack of domestic research and clear links between air pollution and diseases.

## **17. Vietnam announces green growth strategy**

Restructuring and completing economic institutions for green growth is the major component of the national green growth strategy announced by the Ministry of Planning and Investment (MPI) on October 29.

The strategy, which was approved by the Prime Minister on September 25, encourages economic sectors to promote energy efficiency and use natural resources with high added value.

It promotes the application of advanced technologies to boost the effective use of natural resources, reduce the green house gas emissions and adapt to global climate change.

The strategy also emphasizes the need to improve standards of living and develop an environmentally-friendly lifestyle by generating more jobs in the agricultural and green service sectors.

MPI Deputy Minister Nguyen The Phuong suggested that Vietnam should develop a green economy as a crucial factor in realizing the country's sustainable development plan. It is essential to boost energy conservation and organic food production, utilize renewable energy, and change consumer habits towards using environmentally friendly products, he said.

The Country Director of the World Bank (WB) in Vietnam, Victoria Kwakwa, spoke highly of Vietnam's strategy, saying it shows the country's determination to apply modern green technologies.

Effectively managing the use of natural resources will bring back many traditional values for younger generations. The approval of the strategy lays a firm foundation for sustainable economic growth in Vietnam, she noted.

She suggested reforming policies to facilitate the national strategy's implementation.

Kwakwa also called on the private sector to become involved in Vietnam's strategy implementation process, and pledged further WB support for green development projects.

The UN Resident Coordinator for Vietnam, Pratibha Mehta, said Vietnam is one of the pioneers in implementing a green growth strategy in line with the global strategy on climate change adaptation until 2020.

The newly-approved strategy indicates the Vietnamese Government's efforts to cope with climate change, and also creates an opportunity for the country to sharpen its competitiveness, she added.

## **18. Water supply systems in rural area in need of public care**

As statistics informed by the Department of Agriculture and Rural Development of Quang Ngai province, since 1994, in the entire province of Quang Ngai 362 rural water supply systems have been invested at remote and extremely difficult communes with the total cost of up to VND 222 billion.

It is to supply clean water for tens of thousands of local people across the province.

However, in practice, there are 86 out of 362 water supply systems running out of water or out of work for a variety of causes, the main reason found for no water supply is due to the shortage of fund for maintenance of equipment damaged or degraded.

It is necessary to point out the issue is that all community should be responsible for public facility as so far they have been under the thought that all would be supplied and provided for without any charge.

Maintenance fee should be sourced from community or the beneficiaries but no one else.

Therefore, the local authorities shall be in charge of raising awareness of the their residents in contributing to the protection and maintenance of public facilities for their long use to save state budget as well as local contribution budget.

It is time for local people to think of their obligation to the maintenance of community facilities supplied or donated by the state or any organization for public use.

## **19. Storm Son Tinh leaves four dead**

The tropical storm Son Tinh turned into a low depression yesterday after killing four people and injuring seven. In northern and central coastal provinces from Quang Ninh to Nghe An, thousands of houses were damaged, and six people remain missing.

Hai Phong City was the most devastated area, with one killed, four missing and seven injured - all aquaculture farmers and sailors anchored in Cat Hai District.

The storm also blew over a 180-m television tower in Nam Dinh City, which cost more than VND40 billion (US\$1.9 million) and was the highest and most modern in northern Viet Nam. As winds hit 133kph, dozens of boats in the northern provinces of Quang Ninh and Thai Binh were destroyed, the National Committee for Search and Rescue said.

Thousands of hectares of vegetables and rice fields were battered and many cattle were swept away. Landslides and power cuts also occurred in northern provinces, and trees were violently uprooted.

The provinces continue to report more losses.

The storm weakened into a tropical low yesterday morning after crossing the coast at Quang Ninh Province. The Central Hydro-Meteorology Forecasting Centre said winds were expected to drop to 39kph at the eye and move northeast at 10kph over the next 12 hours from 10am yesterday until they dissipate.

Up to 300-400mm of rain inundated the northern provinces of Quang Ninh, Nam Dinh, Hai Phong and Thai Binh.

The affected provinces are making efforts to repair damage caused by the storm and help local people recover their production.

More than 10,000 parcels of food, clothes and other necessities have been delivered to local people.

The Central Flood and Disaster Control Steering Committee said 1,500 soldiers were mobilised for search and rescue and to help victims repair houses.

## 20. Son Tinh storm tests forecasters

*The Central Hydro-meteorological Forecasting Centre said that its forecasts for tropical storm Son Tinh, the eighth and strongest of this year, had been relatively accurate given its complicated movements.*

*"The national hydro-meteorological network worked to keep people informed about the storm and its changes. We tried our best," said Bui Van Duc, general manager of the National Centre for Hydro-meteorological Forecasting at a meeting on Monday.*

The statement was made after some authorities and locals in the storm-hit areas of Thai Binh, Hai Phong, Nam Dinh and Quang Ninh commented that forecasts for the storm had not been accurate, causing big losses for those areas.

On Saturday, the storm, which was moving at speeds of between 25-30 kmh from the East Sea, was forecast to hit the central region from the provinces of Thanh Hoa to Ha Tinh.

However, it suddenly switched to the north and became stronger, with wind speeds of up to 150kmh on the same day. The storm then wreaked havoc across coastal provinces from Quang Ninh to Nghe An and turned into a low depression in the coastal area of Hai Phong-Quang Ninh.

The sudden change and lack of preparation time for local authorities left seven people dead, five missing and 43 injured. Thousands of houses and tens of thousands of hectares of crops were damaged, causing losses of thousands of billions of dong.

The storm-hit provinces are still overcoming the consequences of the storm.

Director of the Central Hydro-meteorological Forecasting Centre Bui Minh Tang said that the direction and the strength of the storm were complicated and hard to predict.

"It passed the central region and gained strength from level 12 to 14 within five hours before moving to the north. Most forecasting centres would have found this difficult to predict," Tang said.

He said a west-south wind suddenly had come from the south on Saturday and changed the direction of the storm.

According to Duc, the west-south wind was still developing and changing at that time. The centre reported it to authorities, but decided to keep following it until 2pm that day.

On Friday, the US Navy's Joint Typhoon Warning Center reported the storm was expected to gain strength over the next 24 hours, and projected the storm would move northwest.

A cold spell hit the north region last night, bringing heavy rain to nor