

Press Review 1+2/2013 - Vietnam, Water and Sustainability Research,

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No	Title	Date	Source	Region	Catalogue	Description
1	Waste discharges pollute nation's seas	2/1/2013	VN News	Vietnam	Waste	Waste from the mainland may be at fault for 70 per cent of marine pollution, according to the Sea and Islands General Administration of Viet Nam.
2	Anti-pollution, climate change plans unveiled	4/1/2013	VN News	HCM	Climate Change	The Government has earmarked VND379 billion (US\$18 million) for two programmes this year to improve environment quality and the country's ability to cope with climate change.
3	Contaminated groundwater blamed for commune cancer deaths	18/1/2013	VN News	Phu Yen	Water	The high number of deaths from cancer in a commune in Phu Yen Province has raised serious questions about the safety of the groundwater used by local residents in their daily lives.
4	Plans to be made in case dam breaks	18/1/2013	MONRE	Quang Nam	Environment	Around 62,000 people living near Song Tranh 2 Hydropower plant in central Quang Nam Province will be evacuated in the worst case scenario if the dam breaks.
5	Development bank to lend \$176m	18/1/2013	VN News	Vietnam	Others	Viet Nam yesterday signed four loan agreements with the Asian Development Bank for \$176 million to strengthen capacity in various areas like public-private partnerships and food safety.
6	Bac Lieu waters spoiled	19/1/2013	VN News	Bac Lieu	Water	The water surface of southern Bac Lieu Province has been significantly contaminated by untreated waste water discharged from hospitals and factories



V-D Office for Water and Sustainability Research

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7	Nix-waste treatment plant has its investment licence revoked	19/1/2013	VN News	HCM	Waste Treatment	The investment licence for a long delayed project to build a nix-waste treatment facility in the Van Phong Economic Zone has been revoked by the zone's management.
8	Land management abuse proves costly in Da Nang	19/1/2013	VN News	Danang	Land Management	Land management breaches by central Da Nang City authorities had caused a loss of VND3.43 trillion (US\$161 million) for the State budget
9	Japanese underpin waste water project	21/1/2013	VN News	Hanoi	Waste water	A waste water treatment system for seven districts in Ha Noi will be constructed with funding provided by the Japanese Government.
10	Ca Mau rivers, canals severely polluted	21/1/2013	VN News	Ca Mau	Pollution	Rivers and canals in Ca Mau City in the southernmost province of Ca Mau are being seriously polluted by waste water discharged by industries and households.
11	Scientists want climate plans changed	26/1/2013	VN News	HCM	Climate Change	Many scientists of southern cities and provinces have called for a new approach to climate change adaptation that would be tailored to each specific region.
12	Big dykes inflict major environmental damage	28/1/2013	VN News	Mekong	Environment	Dykes that encircle large rice fields in the Cuu Long (Mekong) Delta could have negative environmental impacts in the long run and any economic benefits farmers get will be short-lived, experts warn.
13	City urged to make flood plan	30/1/2013	VN News	HCM	Environment	A master plan on flood prevention should take into account the influence of rains, tidal rises and land use



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14	Salt water plagues Delta rice farms	18/2/2013	VN News	Mekong	Water	The Cuu Long (Mekong) Delta will face a shortage of fresh water as well as increased saline-water intrusion during the dry season
15	City must adapt to survive heavy toll of climate change	20/2/2013	VN News	HCM	Climate Change	Dr Ho Long Phi, director of the Centre for Water Management and Climate Change, told the newspaper Tuoi Tre (Youth) that HCM City must adapt its urban planning to the impacts of global warming.
16	World Bank supports rural water initiative	23/2/2013	VN News	Red River Delta	Water	Around 1.7 million rural people in the Hong (Red) River Delta will gain access to safe water and hygienic sanitation thanks to a US\$200-million credit agreement signed with the World Bank yesterday.
17	Mekong conference to discuss strategy for winter-spring rice crop	25/2/2013	VN News	Mekong	Water	The Mekong Delta province of Dong Thap will host a conference on the purchase of paddy/rice from the current winter-spring crop for reserves.



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1. Waste discharges pollute nation's seas

Waste from the mainland may be at fault for 70 per cent of marine pollution, according to the Sea and Islands General Administration of Viet Nam.

Hoang Nhat Thong, who has been researching this problem for the department, said that coastal areas were in significant environmental duress due to the socio-economic activities on land.

About 6.5 million tonnes of toxic chemical substances, 1.6 million tonnes of oil and 47,000 tonnes of heavy metal pollute the sea from shore, according to the United Nations Environment Programme (UNEP)-funded Marine and Coastal Ecosystems Branch, which is currently planning a global action programme to protect the marine environment.

Discharge from the mainland has ruined large swaths of seawater. In some places, the water has turned red, green, or turbid, degrading marine ecosystems and coastal fisheries, according to Thong.

The "hot spots" of coastal pollution are located in northern Quang Ninh Province, Hai Phong City, central Da Nang City, Quang Nam Province, southern Ba Ria-Vung Tau Province and HCMC, according to UNEP representatives.

Thong said most of the discharge came from 28 provinces and cities along the coast, which has a population of nearly 44 million people, as well as 55 million tourists each year.

Moreover, landfills along rivers and beaches had no wastewater treatment facilities, so dirty water goes straight into the ocean.

The problem was compounded by the significant amount of waste from the 18 marine economic zones, 500 industrial parks and clusters and thousands of other industrial manufacturing facilities along the coast.

Every year, an estimated nine river systems with a total basin area of 10,000 sq.km pour 880 cubic kilometres of water into the sea, containing 250 million tonnes of mud and sand and a large amount of organic substances, nutrients, heavy metals and pesticides from farmland.

Transport and medical facilities and seaports also contribute significant waste.

Limiting this discharge, Thong said, was an urgent task for the nation. In his view, the first solution was to improve the system of laws and policies governing the area and help institutions dedicated to environmental protection.

Nguyen Van Cu, head of the Viet Nam Sea and Island General Administration, also emphasised the need to bring the situation under control. He suggested that the Ministry of Natural Resources and Environment and relevant agencies create a national plan for managing marine pollution, including a strategic environmental impact assessment. He added that the ministry should work with localities to minimise marine pollution and enhance public awareness about protecting the ocean.

The country should also devote adequate resources to controlling hazardous waste from the mainland in order to reduce waste discharged into coastal areas, he said, adding that the task would benefit from international support.

2. Anti-pollution, climate change plans unveiled

The Government has earmarked VND379 billion (US\$18 million) for two programmes this year to improve environment quality and the country's ability to cope with climate change.

Around VND131 billion will go to a programme to mitigate pollution.

It will improve the environment quality in severely polluted traditional trade villages and treat waste water in towns along the Nhue-Day and Cau Rivers in the north and the Dong Nai in the south.

The rest of the outlay is for a programme to cope with climate change that will develop pilot models to adapt to climate change in the central province of Quang Nam and southern province of Ben Tre.

Climate change is a new subject and so far only 35 provinces, all on the coast or in the Mekong Delta — or both — where the impacts of climate change and rising sea levels are likely to be the severest, have announced action plans for coping with it. In the three years since they were introduced some policies and programmes related to climate change have already proved their worth.

Awareness about climate change has generally increased, measures to cope with it have been deployed by both central and local authorities, and international co-operation and assistance have reached significant levels.

According the Ministry of Natural Resources and Environment, the national programme for coping with climate change has moved to the action stage and choosing the best models is very important.

The ministry has asked relevant authorities to review and consider their plans, models, and budgets to create long-term programmes.

Minister of Natural Resources and Environment Nguyen Minh Quang has approved another VND69 billion (\$3 million) allocation for 15 climate-change research projects.



People struggle to travel on a flooded street in HCM City's Thu Duc District. The Government has earmarked US\$18 million for two programmes this year to improve the country's ability to cope with climate change.

3. Contaminated groundwater blamed for commune cancer deaths

The high number of deaths from cancer in a commune in Phu Yen Province has raised serious questions about the safety of the groundwater used by local residents in their daily lives.

Le Xuan Bang, chief of Song Cau Town's Hoa Hoi commune in coastal Phu Yen province, said that a total of 19 people have died from cancer in recent years. In 2012 alone, nine residents have died, with seven of them being diagnosed with cancer. The youngest was just 20 years old, while the oldest was 66.

Le Huynh, who lives in the commune, lost his three sons to lung cancer. In 2001 Le Van Kieu died when he was 45, his brother Le Thanh Long died in 2004 when he was 37 years old and recently Le Van Nong also passed away at the age of 48.

"If life was to be safe and sound, there would be nowhere I would rather live than here. However, we now fear for our lives as cancer has killed many people," said Huynh.

Nguyen Van Chinh, deputy chairman of Xuan Canh People's Committee, stated that the number of cancer cases increased suddenly for the first time in 2008.

The quality of groundwater is suspected as the primary cause of the deaths. Bang said that most of the commune's residents use water from the wells near the cemetery every day.

"The cemetery has more than 1000 tombs in a high position, while the wells are lower down, so we think there is high possibility that the water in the wells has been contaminated from the tombs," Bang said .

He added that he and local residents have called for the construction of a running water source and asked both the provincial and municipal People's Committee to inspect the quality of groundwater being used.

"We have had no response from them so far", he said.

Meanwhile, Chinh said that the municipal People's Committee had proposed to close the cemetery and relocate it, but this had failed to happen.

"The Phu Yen People Committee needs to be more involved with inspections in order to ensure that the nearly 670 people of the commune can live a safe life," said Chinh.

4. Plans to be made in case dam breaks

Around 62,000 people living near Song Tranh 2 Hydropower plant in central Quang Nam Province will be evacuated in the worst case scenario if the dam breaks.

The evacuation plan was approved by the provincial People's Committee on Wednesday.

Colonel Le Ngoc Thanh from the provincial Military Command forecasted that earthquakes would continue in the near future and if the earthquakes exceeded 5.5 on the Richter scale, the dam could break, flooding lowland areas.

The main priority was to ensure public safety with a concrete plan to cope with a disaster, said deputy chairman of the provincial People's Committee, Nguyen Ngoc Quang.

An evacuation drill would be held this year, he said.

The provincial Military Command has informed residents of evacuation sites, routes and means of transport to escape possible flooding.

All available forces, including police, soldiers and local residents, will be mobilised to help rescue work. Local authorities have been tasked with ensuring safety at evacuation sites and preparing food, water and medicine for the citizens. Quang said that in order to ensure the efficiency of the evacuation plan, communes and districts should continue checking evacuation sites as well as ways to transport local citizens to high ground.

It was essential to spread the word about what to do in case of emergency, and complete warning systems as soon as possible, he said.

In the case of damage to residents' homes, local authorities would be responsible for helping local citizens to resume their normal lives.

If the dam broke, it would flood Bac Tra My, Tien Phuoc, Hiep Duc, Nong Son, Duy Xuyen, Dai Loc, Dien Ban and Hoi An.

Authorities pointed to the need for a flood plain map.

Director of the provincial Department of Industry and Trade Nguyen Quang Thu said evacuation plans should be made for all reservoirs in the province.

Around 25 tremors were recorded in Bac Tra My district where the hydropower plant is located from October 3 to November 16 last year, according to the provincial Military Command. An earthquake measuring 4.7 on the Richter scale was also recorded during that time, affecting 13 districts and cities in Quang Nam province and damaging more than 1,000 houses and 20 public sites. The PM has said the reservoir at the Song Tranh 2 hydropower dam should not be filled before results of research and analysis are compiled.

5. Development bank to lend \$176m

Viet Nam yesterday signed four loan agreements with the Asian Development Bank for \$176 million to strengthen capacity in various areas like public-private partnerships and food safety.

The agreements were signed by Nguyen Van Binh, governor of the State Bank of Viet Nam, and Tomoyuki Kimura, the ADB's country director for Viet Nam.

The largest loan of \$130 million will help transform the border towns of Dong Ha, Lao Bao (in the central Quang Tri Province) and Moc Bai (the south-eastern Tay Ninh Province) into economic hubs by improving urban and environmental infrastructure and strengthening local institutional capacities.

A \$20 million loan will come from the bank's Asian Development Fund (ADF) to fund the Public Private Partnership Support Project to increase private investment in infrastructure.

"Provision of adequate physical infrastructure is a necessary condition to ensure the country's economic growth and people's access to services and opportunities," Kimura said.

"The challenge then is how to mobilise the financing needed to develop infrastructure, and clearly this will largely rely on encouraging more private sector investment, such as through well placed public financing coupled with support to overcome policy, institutional, information and risk barriers to investment."

A \$11 million loan will fund a project to develop food-safety capacities. This will help establish, strengthen, and implement surveillance and inspection programs for food safety, including safe handling in the tourism industry, and regional co-operation as well as sanitary and phytosanitary management of food trade in the Greater Mekong Subregion.

The final loan of \$15 million, also from the ADF, is for capacity building in HIV/AIDS Prevention, which will help the Government develop its national and regional capacity to mitigate HIV risks and vulnerability, primarily in the country's 15 border provinces.

6. Bac Lieu waters spoiled

The water surface of southern Bac Lieu Province has been significantly contaminated by untreated waste water discharged from hospitals and factories, said the provincial Department of Natural Resources and Environment.

Giang Da Thao, deputy director of the provincial department's Environment Protection Division, said that tests of water surface samples from 30 different places during the past two years revealed consistent contamination, with toxicity levels between 1 and 3.7 times of the legal limit.

Of the 30 areas tested, the 25 spots located near aquaculture processing factories got the highest level of pollution. If the dirty water entered channels and canals, it could contaminate underground water, pollute land and threaten the ecological system of aquatic creatures, the deputy director said.

According to Thao, most aquaculture processing factories and hospitals were not equipped with proper waste water treatment systems. Most waste water was collected and classified, but not treated as required.

Moreover, the use of chemicals and fertilisers still proliferated among agricultural and aquaculture businesses, she said.

Figures from the division showed that there were 40 aquaculture processing enterprises, 220 rice processing enterprises, 20 forest businesses and dozens of hospitals and health clinics in the area.

Many enterprises were located along the Bac Lieu-Ca Mau and Quan Lo-Phung Hiep

Rivers, meaning waste water from these enterprises could easily mix with river water and pollute the whole water surface, she said. So re-locating enterprises to industrial zones would reduce the amount of contaminated water.

7. Nix-waste treatment plant has its investment licence revoked

The investment licence for a long delayed project to build a nix-waste treatment facility in the Van Phong Economic Zone has been revoked by the zone's management.

The Ninh Thuy Nix-waste Treatment Plant, named after the commune where it is located in Khanh Hoa Province's Ninh Hoa District, was a nearly VND1.5 trillion (US\$72 million) project invested in by the Ha Noi Minerals Metallurgy Ltd Co.

Started in 2009, the plant was expected to become operational in May 2011.

In December 2009, the investor signed a contract with a joint venture between South Korea's Hyundai Group and State-run Vinashin, to build a facility to treat 330,000 tonnes of nix-waste per year in the economic zone.

According to the contract, after three years of operation, the plant would be able to treat nearly one million tonnes of nix-waste discharged by the Hyundai-Vinashin joint venture in the process of repairing ships.

However, project construction has remained at a standstill since the first day, and site clearance is the only work that has been completed, according to the economic zone's management authority.

A representative of the Viet Nam Development Bank (VDB), from which the investor wanted to borrow funds, said they had accepted the investor's application in principle, but because the investor had not submitted the needed financial reports, the bank could not disburse the money.

In order to treat all the nix waste, the management authority of the economic zone has given the licence to Thach Anh Van Phong Ltd Co. for building a high-intensity plant that uses nix waste to produce unbaked building materials.

This plant has an investment of VND200 billion (\$9.6 million) with a capacity of 70,000 cubic metres per year, equivalent to 75,000 tonnes of nix-waste per year. However, it would take more than 10 years to treat all the nix-waste in the zone, according to the management authority.

The Van Phong Bay, a famous tourist attraction in Khanh Hoa, is badly affected by pollution caused by insufficiently treated nix-waste discharged by the Hyundai-Vinashin joint venture.

8. Land management abuse proves costly in Da Nang

Land management breaches by central Da Nang City authorities had caused a loss of VND3.43 trillion (US\$161 million) for the State budget, the Government Inspectorate said on Thursday.

A number of investment projects relating to land management and use in Da Nang from 2003 to 2011 had shown violations related to price or money paid by units and individuals for land use, the inspectorate said.

Violations were also found in transferring land use rights, granting land use right certificates and extending deadlines for land use fee payments.

The Government inspectors clarified the responsibility of the chairman and vice chairman of the Da Nang People's Committee and related organisations and individuals in violating land management regulations.

The estimated loss resulted from a 10 per cent discount intentionally decided for resettled households, equivalent to VND446 billion (\$21.4 million); 10 per cent discount for investors, equivalent to VND867 billion (\$41.2 million); an unreasonable price decision by the People's Committee which caused a loss of more than VND2.1 trillion (\$100 million).

According inspection results, Da Nang authorities revoked, allocated and leased land for 1,061 projects with a total area of more than 17,534ha during 2003-11.

Inspecting 46 out of the mentioned 1,961 projects, Government inspectors found the municipal People's Committee entrusted the Project Management Boards and a number of companies to monitor the land fund and sign contracts to transfer land use rights for organisations and individuals to invest in building production units or houses for sale or lease without abiding by land laws.

Regarding land-use fee collections, the People's Committee and the local Land Price Assessment Council had determined a land-use fee that failed to meet the market price under normal condition as regulated by the land law.

Some projects had lower prices than the land price issued annually by the city while other projects were defined to have land-use prices lower than that appraised by the Land Price Assessment Council, causing State budget losses and creating conditions for investors to take advantage of this to transfer the land-use rights to make huge profits.

Concerning land-use fee discounts, inspection results showed that it was illegal for the People's Committee to offer a 10 per cent discount in land-use fees for households that were already allocated land for resettlement and for organisations and individuals that were already allocated land by the city.

Inspectors discovered that the People's Committee allowed investors in 10 projects to extend land-use fee payment deadlines without punishing them for slow payments. Meanwhile, investors in a number of projects were fined for slow payments of land-use fees but were exempted from the fine by the People's Committee, causing losses to the State budget.

Following the inspection results, Prime Minister Nguyen Tan Dung ordered the chairman of the Da Nang People's Committee to review and clarify the culpability of organisations and individuals who were in charge and to punish violators in line with regulations.

Dung also ordered the Ministry of Public Security to investigate the case and to set punishments in line with the Penal Code.

9. Japanese underpin waste water project

A waste water treatment system for seven districts in Ha Noi will be constructed with funding provided by the Japanese Government.

An agreement on the loan for the Yen Xa Wastewater Treatment System was signed between the Ha Noi People's Committee and representatives from Japanese International Co-operation Agency (JICA) on Friday in the capital.

The 66.7 billion Yen (US\$740 million) project will be managed by the Ha Noi People's Committee. Investment capital includes 56.1 billion Yen (\$623 million) in official development assistance and 10.6 billion Yen (\$117 million) from the Vietnamese side.

The Yen Xa treatment facility will be built in Thanh Liet commune, Thanh Tri district, in an area of 13 hectares. It will treat waste water from 900,000 residents living in Ba Dinh, Dong Da, Thanh Xuan, Hoang Mai, Ha Dong, Thanh Tri and Tu Liem districts.

The system will be constructed between 2013 and 2020.

10. Ca Mau rivers, canals severely polluted

Rivers and canals in Ca Mau City in the southernmost province of Ca Mau are being seriously polluted by waste water discharged by industries and households.

The Ca Mau – Bac Lieu Canal, which runs around 5km long along National Highway 1A from the city's gateway to its central area, is polluted by more than 10 seafood processors, according to Nguoi Lao Dong (the Labourer) newspaper.

Many shops, including some that sell fuel and construction materials and repair boats, also dump waste into it.

People living near the canal say it has become so seriously polluted in recent years that no fish can live in it.

They are also afraid of swimming in the canal because of its pollution.

The section of the Ganh Hao River that runs through the Seafood Export and Processing Zone in Ward 8 is black in colour.

Truong Van Kha, who lives along this section, says: "There were times when the water turned black as ink." Many seafood processors are situated in the city centre and release their untreated waste water directly into rivers and canals.

Most of the processors and other factories have treatment facilities but they are only operated when officials arrive to inspect them.

Local officials admitted that seafood processors discharge untreated effluents into rivers and say this was carried out to save cost.

Tran Kieu Danh, deputy head of the city's Environment and Natural Resources Bureau, said: "Before inspecting factories, authorities have to inform them, making it hard to detect their violations, implying that this gives them time to cover their tracks."

However, last year 69 out of 112 small establishments that were inspected were found violating environmental protection regulations, according to the bureau.

Of the 69, 14 have been penalised and the rest were warned.

"Pollution caused by domestic waste is also a problem. The city has around 2,000 families living along rivers and canals, and they throw about up to five tonnes of waste into the water bodies every day," the bureau said. The nearly 150,000 boats that ply them throw another five to six tonnes of rubbish besides leaking fuel.

The Ca Mau Urban Project and Water Supply and Drainage Company is forced to have a fleet of boats operating around the clock to collect all this waste.

The boats collect around 10 tonnes of waste every day.

11. Scientists want climate plans changed

Many scientists of southern cities and provinces have called for a new approach to climate change adaptation that would be tailored to each specific region.

Commenting on a draft proposal by the Ministry of Environment and Natural Resources (MENR), participants at a conference held in HCM City yesterday said it [the draft] should be revised.

The conference, held by MENR and the Central Committee for Publicity and Education on Coping with Climate Change and Resource Conservation, was also attended by leaders of southern localities stretching from Da Nang to Ca Mau.

Dr Duong Van Ni of Can Tho University said that different approaches were needed for each locality because the impact of climate change varied from area to area within the country.

"The risks from climate change include higher sea levels. But the upper part of the Mekong River is also affected, which means the Cuu Long (Mekong) Delta needs a clear strategy to have reserves of fresh water," he said.

"Water volume from the upper to the lower part has changed dramatically in recent years due to climate change and changes made in the upper basin. This could lead to a major water shortage in the next 20 years," Ni added.

Prof Le Huy Ba, former lecturer at HCM City Industry University, said the ministry's report incorrectly separated the two issues of climate change and the environment.

He said the report had an "inaccurate scientific approach" that focused on prevention rather than adaptation. Ni of Can Tho University said the major risk from climate change is the spread of disease from rising temperatures and different weather conditions.

"There will be more mosquitoes because of increased flooding," he said.

Ni also said that the proposal focused on the delta's inland areas but ignored the sea areas around the region.

He urged authorities in all countries lying on the upper part of the Mekong River to work closely with Viet Nam and neighbouring countries to exchange information on water levels and other specific data.

European Union chips in \$6 million

LUANG PRABANG —The European Union (EU) last week committed 4.95 million euros (US\$6 million) to the Mekong River Commission (MRC) for the Climate Change Adaptation Initiative (CCAI) until 2015.

This initiative supports the MRC's programme to assess the effects of climate change and integrate adaptation planning at the regional, national and community levels.

The funding is part of the Global Climate Change Alliance, an initiative of the EU to strengthen dialogue and cooperation with the nations most affected by climate change.

"The support of the EU underscores the importance of climate change in the development of the Lower Mekong Basin. Adaptation planning can better prepare the region for the challenges ahead, ensuring food security and alleviating poverty," said Hans Guttman, chief executive officer of the MRC, at the signing ceremony last week.

With support from the EU together with other development partners, the initiative will provide training and exchanges at the governmental and community levels to identify vulnerabilities and ways to tackle the challenges.

The MRC is the inter-governmental body responsible for cooperation on the sustainable management of the Mekong Basin whose members include Cambodia, Laos, Thailand and Viet Nam.

And, an official from the Steering Committee for Southwest Region Development said it was necessary to monitor pollution levels of water from the river's upper part, which directly affects underground water in the delta.

He said that any planning scenario should include solutions on resolving the pollution levels in the river's upper region.

The ministry's proposal will be submitted to the next Communist Party Congress, which will issue a resolution on climate change.

12. Big dykes inflict major environmental damage

Dykes that encircle large rice fields in the Cuu Long (Mekong) Delta could have negative environmental impacts in the long run and any economic benefits farmers get will be short-lived, experts warn.

They explain that while the dykes allow for the growing of more crops a year by keeping seasonal flooding at bay, this is causing severe degradation of soil that would hit farmers hard in the near future.

However, farmers in the area are happy with the dykes for now because they have boosted incomes sharply.

Just a decade or so ago, delta farmers could grow two rice crops a year, with the second crop normally ending in August to avoid flooding over the next three or four months as inflows increased from the upper reaches of the Mekong River.

The cultivation of two crops a year had been a tradition developed over more than 200 years since people started settling in the delta.

But occasionally, the flooding happened before August, inundating rice fields that had not been harvested. This prompted farmers to build earthen dykes and protect paddy that has not been harvested.

The earthen dykes, built whenever farmers needed to protect their rice from early flooding, were temporary and called "August dykes."

In the early 2000s, farmers in many localities started to make dykes that were much longer than the traditional August dykes to squeeze in an additional crop in the delta's two main rice growing areas - the Plain of Reeds and the Long Xuyen Quadrangle.

The longer dykes allowed farmers to cultivate rice during the flooding season and local authorities supported the move.

In 2007, two "circle dyke" systems were built to enclose the Plain of Reeds in Dong Thap Province and the Long Xuyen Quadrangle in An Giang and Kien Giang provinces.

Since then, farmers have been able to cultivate the third crop every year and earn higher incomes, but experts insist the dykes cause greater harm than farmers realise.

Dr Duong Van Ni of the Can Tho University says the dykes have blocked the inflow and outflow of flood waters into the Plain and the Quadrangle, and this will create serious problems.

"Naturally, floods bring alluvia to the soil, giving nutrition back to the land after crops," says Ni, a hydrology expert who has worked in the delta for decades.

The alluvia deposits during the flooding also help strengthen the weak stratum of the "young delta," he says.

Also, "after several months, when the flood gets out of the fields, it carries the waste of chemical fertilizers and pesticides out to the sea," he says. The flushing out operation freshens the fields for the new crop, which means less pests and diseases.

Another Can Tho University lecturer, Dr Le Anh Tuan, who is studying water management in the delta, says the dykes "have changed the nature of the delta."

"The Plain of Reed and the Long Xuyen Quadrangle serve as two reservoirs of water for the whole delta thanks to its sunken topography," he says. "The lower part of the Mekong River in Viet Nam receives an average of 400 billion cubic metres of water from the upper part annually. Ninety nine per cent of this arrives during the rainy season, and 10 per cent in the dry season.

"When floods enter the country, water pours into the Plain of Reeds and the Long Xuyen Quadrangle first, then flows to other areas of higher topography.

"So it is obvious that these two areas help reduce flooding in other areas in the delta while replenishing underground water supply for rivers and canals during the dry season," Tuan says, adding that this role has been curtailed by the dykes.

Studies done by Ni and Tuan have also shown that soil quality in rice fields has degraded strongly after five or six years of cultivating three crops each year.

Both experts express concern about the losses farmers face now and in the near future.

Farmers in the delta say they do recognise the degradation of soil and have also seen a fall in fresh water fish and other seafood for many years now.

However, high prices of rice from the third crop has significantly improved living standards for his family, says Huynh Van Minh, a farmer in Dong Thap Province's Tan Phuoc Commune, "In the commune, 90 per cent of the residents cultivate the third crop, which yields 10 bags (usually 50kg) of rice per cong (one tenth of a hectare). The first and second crops yield six bags," Minh says.

Nguyen Van Tang, another resident of the commune, says farmers do not seem to care about soil degradation or a sharp decrease in seafood resources. "They all seem to be happy as they can work and earn even during the flooding season," he says.

In the past, farmers could not work during the flooding season. Now, many farming households also say they feel safer with the protection that dykes offer from floods.

But experts insist that this is a short-sighted approach. They say the profit and other benefits from the encircling dykes cannot make up for the impacts on the environment, as well as long term socio-economic impacts.

They say authorities need to act urgently and spread awareness of the negative impacts among farmers to protect the nation's resources and ensure livelihood sustainability in rural areas.

13. City urged to make flood plan

A master plan on flood prevention should take into account the influence of rains, tidal rises and land use, officials said at a conference held yesterday in HCM City.

"To deal with flooding comprehensively, HCM City needs to carefully examine the programme and all the projects related to flood prevention," said Nguyen Ngoc Cong, deputy director of the Steering Unit for HCM City Anti-flooding Programme.

There are two major flood-prevention projects in the city. The Ministry of Agriculture and Rural Development manages one of two projects on irrigation planning in HCM City, while the Japan International Cooperation Agency has developed a master plan to install culverts and treat sewage.

Cong said measures on concrete and non-concrete items, long-term planning for socio-economic development and environmental protection are three issues that need attention.

HCM City is situated on the lower parts of the rivers of Dong Nai, Sai Gon, and Song Be. It has 7,880 streams and canals, and 60 per cent of the city's area comprises low-land areas. Fast urbanisation without adequate changes in infrastructure has changed natural water flows in the city. Over-exploitation of underground water has also contributed to the collapse of the city's topsoil.

Because of these changes, more flooding problems have occurred in the city at a time when it is hit by climate change impacts.

Frist Dirks, chief consultant of the Netherlands Royal Haskoning, said the task of flood prevention in HCM City was especially difficult because the topsoil was sinking about 2-3cm a year.

Rising tides with higher and higher elevations are another problem, increasing by 1cm per year, he said.

Dirks also emphasised that city construction had dominated low-land areas which served as reservoirs for rainwater.

Participants at the conference said the city critically needs a master plan with a sustainable vision, particularly as it relates to infrastructure and flood prevention.

14. Salt water plagues Delta rice farms

The Cuu Long (Mekong) Delta will face a shortage of fresh water as well as increased saline-water intrusion during the dry season, according to the Central Hydro-Meteorological Forecasting Centre.

The water level at the Mekong River's upstream area is now 0.6-0.7 metres lower than the average level.

At the end of December, water with a salt content of 0.4 per cent entered 20-30 km deep inland from river mouths in many areas.

In the Tien and Hau rivers, two main tributaries of the Mekong River, water with a high salt content of 0.4 per cent will be able to enter 55 km deeper inland during the dry season.

Similarly, in the Vam Co Dong and Vam Co Tay rivers, saline water may enter more than 70km inland.

The salt content of water will be also higher than the last dry season.

In Soc Trang Province, droughts and saline-water intrusion have affected dozens of thousands of hectares of winter-spring rice.

In Ben Tre Province, saline-water intrusion has caused a fresh water shortage for agricultural production and for households in Binh Dai and Ba Tri districts for nearly one month.

The Delta has carried out measures to prevent and control droughts and saline-water intrusion this dry season to ensure fresh-water supply, according to the Southern Irrigation Science Research Institute.

The measures include closing sluice gates to prevent saline-water intrusion, building temporary dams to hold fresh water, dredging major canals, building dykes to maintain fresh water.

The Delta's provinces have also better informed farmers about local conditions so they can take action to prevent any potential damage.

To mitigate losses from such conditions, farmers have been told to re-arrange their cultivation schedules and choose plant strains resistant to drought and saline water.

The Delta now has five irrigation reservoirs, 1,221 pumping stations, 2,447 sluice gates and more than 80,000km of canals, according to the Ministry of Agriculture and Rural Development.

It also has 25,900km of dykes built to prevent floods, 460km of sea dykes, 1,600km of river dykes and 200km of dykes that hold water to prevent fires.

These irrigation works have provided services for more than 1.4 million ha of rice and have helped prevent and control floods.

They have also enriched the high-alum soil in the Long Xuyen Quadrilateral, Dong Thap Muoi (Plain of Reeds) and Ca Mau peninsula areas.

The Delta's irrigation system for rice cultivation is in good condition, but the shrimp and rice cultivation along coastal areas still have weaknesses, according to the ministry.

After 11 years of shrimp cultivation under both semi-industrial and industrial farms, the Delta has several areas of desertification, especially in the Ca Mau peninsula. This occurred after farmers took sea water into fresh-water zones for aquaculture.

Saline water is entering the Delta inland from the East as well as West Sea.

Local authorities in the Delta have asked the ministry to build irrigation projects on Cai Lon and Cai Be rivers to prevent saline-water intrusion from the West Sea.

15. City must adapt to survive heavy toll of climate change

Dr Ho Long Phi, director of the Centre for Water Management and Climate Change, told the newspaper Tuoi Tre (Youth) that HCM City must adapt its urban planning to the impacts of global warming.

What gave you the idea that urban development in HCM City should adopt a policy of climate change adaptation?

Flood prevention

For the anti-flood control projects, HCM is divided into three regions. Region 1 from the right side of the Sai Gon River to Nha Be; region 2 from the T junction of the Dong Nai-Sai Gon river and region 3 from the left side of the Nha Be-Soai Rap River.

In the three regions, 40 large and small sluices will be built at the river mouths along with the construction of 170km of dikes running from HCM City to Long An. When it started, the project was expected to cost more than VND 11,000 billion (\$529 million). But it has since jumped to VND 60,000 billion (\$2.9 billion).

16. World Bank supports rural water initiative

Around 1.7 million rural people in the Hong (Red) River Delta will gain access to safe water and hygienic sanitation thanks to a US\$200-million credit agreement signed with the World Bank yesterday.

The support aims to help Viet Nam implement its National Target Programme for Rural Water Supply and Sanitation.

“We are very pleased to support the government’s programme of increasing access to improved water supplies and sanitation in the delta using a results-based approach and moving towards a more programmatic engagement,” said Victoria Kwakwa, the World Bank’s Country Director for Viet Nam.

The programme is expected to strengthen governance systems for results-based service delivery as well as gender-based monitoring and reporting, two key components of the World Bank Viet Nam Country Partnership Strategy 2012–16.

The funding for this credit comes from the World Bank’s International Development Association (IDA), the World Bank’s concessional lending resource for poor countries.

The Australian Agency for International Development (AusAID) has also committed to providing AUD 8 million (\$8.2 million) in the form of technical assistance to support the National Target Programme.

Innovative

Meanwhile, five innovative learning projects for the benefits of the locals will receive grants from the Viet Nam Blended Learning Programme.

They include a project that provides neonatal tele-education and training and another that trains people in renewable energy potential and carbon offset opportunities.

The projects are included in a programme sponsored by AusAID and managed by the World Bank Viet Nam Development Information Centre.

17. Mekong conference to discuss strategy for winter-spring rice crop

The Mekong Delta province of Dong Thap will host a conference on the purchase of paddy/rice from the current winter-spring crop for reserves.

The conference, held at the office of Dong Thap People's Committee on next Wednesday, will also discuss rice export prices.

The conference, which is to be chaired by Deputy PM Hoang Trung Hai, will focus on the co-operation and collaboration between farmers and exporters under the large-scale cultivation model; as well as the production and consumption of shrimp and tra fish in the country.

The Viet Nam Food Association (VFA) is scheduled to deliver a report on purchases of winter-spring paddy/rice and plans for this year's rice export.

The An Giang Plant Protection Service (AGPPS) Joint Stock Co will report on achievements attained with the large-scale rice production model.

Businesses under the VFA have begun to purchase one million tonnes of rice of the current winter-spring crop 2012-13 for reserves under a decision by PM Nguyen Tan Dung.

The purchase campaign for reserve will last until 31 March 2013.

The VFA said it has appointed 120 buyers to take part in the rice purchase plan and commercial banks are ready to provide loans for VFA members to join the campaign.

According to the Deputy Chairman of southern Hau Giang Province People's Committee, on last Friday one kilo of fresh IR 50404 paddy was sold for VND4,200 at the field right after harvest.

Although paddy prices were up two days after the launch of the reserve-purchase campaign, they are not sufficient to ensure reasonable earnings for farmers, he added.