

Much effort has been expended on tackling climate change but more is needed to mitigate and adapt to its effects.
Hoai An and Minh Tuyet report.



PHOTO: VIET TUAN

STRUGGLING TO COPE

The wet season arrived late and ended early in the Mekong Delta this year, with total rainfall being well short of the average in recent times. Water flows along the key Mekong River were down dramatically, permitting greater saltwater intrusion than usual. Farming, production and people's lives have been seriously affected, with hundreds of thousands of hectares of rice and fruit suffering damage.

"The influx of salt water, which is predicted to extend up to 70 to 90 km inland, has had a major effect socially and economically in Mekong Delta provinces, sometimes to a serious degree," said Associate Professor Dr. Huynh Thi Lan Huong, Deputy Director General of the Vietnam Institute of Meteorology, Hydrology and Climate Change.

SAVING THE DELTA

The recent drought and salt water intrusion has been assessed as the biggest natural disaster to strike Vietnam. With low rainfall, intrusion covers an area double that seen last year and is beyond the country's ability to cope. Vietnam is very much in need of support from the international community.

The state of affairs was described to a workshop with development partners and sponsors on responding to drought and salt water intrusion in the central region, central highlands, and Mekong Delta, held on March 15 by the Ministry of Agriculture and Rural Development (MARD).

Ministry of Foreign Affairs spokesperson Le Hai Binh told a press conference in Hanoi on March 17 that Vietnam had asked China to increase the water volume discharged from the Jinghong hydropower reservoir to help it partly address the drought and salt water intrusion hitting the Mekong Delta and that China had agreed. According to the Vietnamese Embassy in China, a representative from the Chinese

Irrigation Ministry met with Embassy representatives on March 14 and informed them that China would increase the discharge from 1,100 cu m per second to 2,190 cu m per second from March 15 to April 10, or double the average of the last two years.

Many experts, however, say this can only ever be a temporary measure and that Vietnam must take other action instead of depending solely on China. "The discharge is only a temporary solution and we cannot ask China to do likewise when next we face this problem," said Ms. Nguyen Thi Thu Huyen, Deputy Manager of the Sustainable Development and Environment Department at the Institute of Energy under the Ministry of Industry and Trade.

Minister of Agriculture and Rural Development Cao Duc Phat told the workshop that since last October the government has spent VND700 billion (\$31.4 million) on helping localities build irrigation works and ensure fresh water supplies. Fifteen kilos of rice have also been given to each person in poverty-stricken households every month.

The ministry attributes the severe drought and salinity to the El Nino weather pattern and climate change in general. It is therefore implementing medium and long-term solutions that include production restructuring, shifting from cultivation to husbandry or the non-farm sector, and the construction of salinity control facilities.

On March 12 Prime Minister Nguyen Tan Dung issued Directive No. 09/CT-TTg on the implementation of measures to control and respond urgently to saltwater intrusion in the Delta. MARD and the Ministry of Finance are required to review and combine proposals for funding to provinces on drought and saltwater intrusion and then report back to the Prime Minister for consideration. He also agreed to provide budget support to provinces affected by saltwater intrusion so they can build temporary dams to restrain salt water and retain fresh water, with funds also being used to help with fresh-

water transportation costs and installing plumbing systems. Localities are also requested to allocate budget funds and mobilize other capital sources to limit saltwater intrusion.

Authorities and residents in the Delta have been applying all possible measures and mobilizing resources to minimize the damage caused by salinity.

Soc Trang province has closed sluice gates in Long Phu and Tran De districts to prevent salt water entering rice fields. Ben Tre province has built dykes around orchards in Cho Lach district and established a water supply system to transport fresh water from Ba Lai Reservoir to thousands of households in Binh Dai district.

Tien Giang plans to build 173 dams, install pumps to pump water at 178 sites and dredge 146 canals in rice fields to supply fresh water. Dong Nai province, meanwhile, has already implemented 78 irrigation projects this year with total investment of VND350 billion (\$15.7 million), of which the State budget funded 11.4 per cent.

These examples express the efforts of provinces and localities in saving the Mekong Delta from saltwater intrusion and many other provinces are also trying to minimize the effect of climate change on economies and societies.

EFFECTS FORESEEN

Climate change response has received a great deal of attention from the government and relevant ministries in recent times. A number of pilot programs on infrastructure construction and improving capacity to respond to climate change have been implemented but been unable to limit the adverse effects in the Mekong Delta.

"The issue of climate change has had a massive impact on all aspects of socioeconomic development in Vietnam as well as in the region and around the world," Ms. Huyen said. "Vietnam is forecast to be one of ten countries most heavily affected by climate change."

Recognizing the threat to economic devel-

opment, the government has made addressing the impacts of climate change a key priority. In December 2008, under Decision No. 158/QĐ-TTg, it approved the National Target Program (NTP) to respond to climate change. The strategic objectives are to assess climate change impacts on sectors and regions during specific periods and to develop feasible action plans, effectively respond to climate change in the short term and long term to ensure sustainable development, take opportunities to develop towards a low-carbon economy, and join the international community's efforts in mitigating climate change.

These efforts have seen some positive results but may not be clear to see as the effects of climate change continue to be felt in many ways. "Some sectors have been positive in responding to climate change, such as agriculture and energy," Ms. Huyen said. "The proportion of renewable energy has soared together with an increase in concern by providers and customers over energy saving and effectiveness."

CHALLENGES ABOUND

Despite the efforts in place Vietnam still faces limitations and obstacles in identifying solutions to tackling climate change. Emerging issues are the inconsistent data systems for testing greenhouse gases and the impact of climate change, poor preventive measures and a lack of facilities for observing, monitoring and evaluating climate change, and a lack of technical experts in research and technological development.

Vietnam's production technology is also considered to be at a low level, consuming not only large amounts of resources and energy but also creating significant emissions. It will therefore take a lot more time and effort to change and find suitable solutions.

Ms. Huyen also highlighted that although climate change has received greater concern from the government, Vietnam is still focused on research and evaluation to determine the impact of climate change and propose measures in response. "Meanwhile, the government has not given enough focus to mitigation and adaptation to address the causes and take measures to survive and thrive amid climate change," she said. Most environmental experts note the importance of mitigation and adaptation as long-term solutions for Vietnam. According to the Financing Vietnam's Response to Climate Change report prepared by the Ministry of Planning and Investment (MPI), the implementation of national climate change and green growth strategies and action plans continues to shape Vietnam's response to climate change, but further harmonization with sectoral and local policies is necessary to ensure both adaptation and mitigation goals are reached.

Minister Phat has suggested that Vietnam consider investing in planting and forestry protection to ensure water retention and soil protection, and on changing the structure of crops in each locality.

Meanwhile, in terms of mitigation, Ms. Huyen recommends the country invest in clean, low-carbon and energy saving technology to utilize waste and reduce emissions.

Energy-saving, renewable and waste treatment technologies require huge investment, however. In its Country Assessment Report on the Status of Climate Finance in Vietnam, MPI estimated that VND100 trillion (\$4.5 billion) will be needed annually to finance climate change activities to 2020.

"Vietnam's economy is still growing, so many industries must balance their investment to ensure development and meets the needs of the economy," Ms. Huyen said. Investment in clean technology is a difficult step to take and support is very much needed from the international community. ■



Associate Professor Dr. Huynh Thi Lan Huong, Deputy Director General of the Vietnam Institute of Meteorology, Hydrology and Climate Change.

■ What are your thoughts on how Vietnam is coping with climate change?

There have been three significant results from coping with climate change recently. Firstly, the political system has been fully participating in the fight. Secondly, public recognition and understanding about climate change has improved, especially among people in coastal and mountainous areas and the Mekong Delta, which are directly affected by climate change. Thirdly, pilot projects on coping with climate change have been expanded. People's lives, especially those living in coastal areas, have been improved as a result.

There remain many difficulties, however. The first is a shortage of experts in climate change, especially at the provincial level. Mechanisms and policies are yet to materialize to mobilize finances and technology transfer from individuals and organizations in coping with climate change. Research on applying technology and solutions have fallen short of expectations. Investment in projects and key constructions to cope with climate change has not come in sufficient amounts.

■ What would you suggest be done from 2016-2020 to cope with climate change?

The recognition, understanding and responsibility of people and State staff in coping with climate change, preventing and limiting disasters and protecting natural resources and the environment must be improved. Climate change problems must be present in development strategies and plans.

The participation of all levels (provincial, central, and local) must be stronger. Inspections and examinations of climate change must be conducted more regularly.

Economic restructuring should move towards green growth and lower carbon emissions. Solutions for coping with climate change should be multi-functional, satisfying not only the need to cope with climate change but also economic purposes, multi-area, where provinces and regions are connected, and multi-sector, where sectors such as industry, forestry, and agriculture are linked together.

The capacity to forecast and warn of natural disasters and climate change should be increased. A wide range of measures should be conducted, including standardizing measures to actively prevent, avoid, and limit the impact of storm surges, flooding, and salinity caused by rising sea levels in coastal areas, particularly in the Mekong

Delta, the Red River Delta, and the central coast.

Sources for coping with climate change should be prioritized on afforestation, building more reservoirs and river and sea dykes to reduce the impact of climate change.

Attendance at international forums and international cooperative activities in climate change must be more regular. Finally, mechanisms and policies on climate change should be amended quickly to turn climate change into cooperative opportunities.

■ What areas of Vietnam will face the most difficulties in coping with climate change?

The Mekong Delta and the Red River Delta are the two regions that will face the most difficulties. Eighty per cent of the Mekong Delta and 30 per cent of the Red River Delta are at elevations of 2.5 meters below sea level, so the threat from rising sea levels, coastal erosion and saltwater intrusion are very serious indeed. Climate change also increases the frequency and intensity of heat, floods and droughts. These types of natural disasters under the impact of climate change do not occur seasonally or cyclically but occur erratically, making them very difficult to forecast. Dealing with this is therefore problematic.

■ What research and technological applications should Vietnam focus on to respond to climate change?

The research and study of advanced technological solutions to actively respond to climate change for sustainable development is very important. These technologies must serve three objectives: proactive adaptation, mitigation and improving the capacity of forecasting and warning, and monitoring climate change.

These technologies must be closely linked to promote green growth, move the economy towards low-carbon efficiency and ensure sustainable development goals are met. Vietnam must continue to implement research achievements in technology made in the 2011-2015 period and study advanced technologies that match the country's particular conditions.

To increase the efficiency of proactive responses and research effective solutions with earlier and more accurate forecasting, the application of advanced technology such as remote sensing and geographical information systems (GIS) need to receive more attention and investment. ■