



Viet Nam: Drought and Saltwater Intrusion

Office of the UN Resident Coordinator

Flash Update No. 2 (As of 27 February 2020)

This update is issued on behalf of the UN Resident Coordinator in Viet Nam in collaboration with humanitarian partners. It covers the period from 23 January to 27 February 2020. The next update will be issued once new information becomes available.

Highlights

- Since 2019, severe drought and saltwater intrusion conditions have been detected and have begun to significantly affect people across 13 provinces¹ in the Mekong Delta region.
- Seasonal weather forecasts indicate that the level of severity will continue to increase, peaking in March to May 2020.
- On 15-17 January, the Central Committee for Natural Disaster Prevention and Control (CCNDPC), INGOs, Viet Nam Red Cross (VNRC) partners and the UN, conducted a joint multi-sector rapid assessment and published a [joint assessment report](#).
- On 1 February, IFRC launched a [three month Disaster Relief Emergency Funding \(DREF\) operation](#) to support VNRC to assist affected people in Ca Mau, Bac Lieu, and Tra Vinh.
- As of 7 February, three provinces have declared a state of emergency².
- On 13 February, the Minister of Agriculture and Rural Development submitted a [report](#) to the Prime Minister, summarizing the current situation, the steps taken to address impacts and recommendations for continued action.
- On 14 February, the CCNDPC Vice-Chairman sent a letter to the UN RC outlining the response undertaken by UN agencies and looking forward to continued cooperation.
- The COVID-19 outbreak is also impacting trade in the Mekong Delta, putting an additional socio-economic pressure on vulnerable households already affected by drought and saltwater intrusion.



Khanh Binh Dong commune, Tran Van Toi District, Ca Mau Province
(Credit UN Women, Jan 2020)

685,558

People potentially affected at peak

82,000

Households currently affected by water shortage

3

Provinces in state of emergency²

29,700

Hectars of damaged/ lost agricultural land

Source: Central Steering Committee of Natural Disaster Prevention and Control, Vietnam Disaster Management Authority (VDMA)

¹ Ca Mau, Soc Trang, Hau Giang, Tien Giang, Ben Tre, An Giang, Dong Thap, Vinh Long, Tra Vinh, Long An, Bac Lieu, Kien Giang, Can Tho

² Kien Giang, Tien Giang and Ben Tre

Situation Overview

The 2019 rainy season in the Mekong basin appeared much later than in average years, resulting in drought conditions and historic low levels of flow, raising concerns for elevated drought and saltwater intrusion for the entire Mekong Delta in the 2019-20 dry season. Saltwater intrusion has appeared earlier in the year than the historic 2015-2016 low levels of flow. To date, saltwater intrusion of 4 g/liter has entered up to 82-85km inland (Vam Co Dong, Vam Co Tay) and is expected to enter as deep as 110km inland, going up to 20km beyond the highest levels reported in 2016 (VDMA, Meteorological Department).

Satellite observations from October 2019 to February 2020 indicate poor vegetation health, prolonged dry spells, and soil moisture deficits, indicating drought conditions. As the dry season progresses, drought conditions are affecting aquifers (underground water sources) which usually support the domestic water demand, agriculture, and livelihoods, especially of poor and near-poor households ([UNOSAT](#), [ECHO](#)).

According to experts³, the Mekong Delta region is facing abnormal weather attributed to climate change, tide changes in amplitude, propagation and discharge, subsidence resulting from over-extraction of groundwater, and upstream water retention. As of 10 February, the upstream water level of the Mekong River is reported to be below 2016 levels. The water levels at most of the key stations, including Tan Chau and Chau Doc, are staying below their Long-Term-Average (LTA) and in some cases are close to Minimum Levels (Mekong River Commission).

The ongoing drought, water shortage and saltwater intrusion have so far affected 82,000 households and are exposing a higher number of vulnerable people in the Mekong Delta region to significant water shortage risks. A total of 13 out of the 63 provinces of Viet Nam have been affected and 3 provinces (Kien Giang, Ben Tre and Tien Giang) have declared a state of emergency.

Considering seasonal forecasts, the Government and partners are implementing actions to address needs and to avoid severe impacts which could unfold during the peak of the dry season from March to May 2020. In addition, as gaps have been reported in household water storage and people's basic understanding and awareness, national and international actors are supporting households with improved water storage systems and with communication campaigns on WASH, Food Security, Agriculture, Health and Nutrition, Education, Gender and Protection. The Government has identified several measures that need to be implemented on the ground and which highlight some of the existing response gaps to be addressed ([Ministry of Agriculture and Rural Development report](#)).

Overview of Impact and Actions

Impact

WASH (Water, Sanitation, Hygiene)

- 82,000 households lack enough water for domestic use (12,700 in Ben Tre, 24,400 in Soc Trang, 20,400 in Kien Giang, 4,500 in Ca Mau and 2,200 in Tien Giang). In the peak of the dry season, about 158,900 households are expected to experience shortage of domestic water. ([VNDMA 15/02/20](#))

Food Security, Livelihoods, Agriculture

- As of mid-February, drought and saltwater intrusion caused damage to 29,700 ha of winter-spring crops in 2019-2020. Around 332,000 ha of winter-spring rice and 136,000 ha of fruit trees will likely be affected during the peak of the dry season. ([VNDMA 15/02/20](#))

Education

- Since schools are temporarily closed until end of February 2020 due to COVID19 concerns, no changes in increased absenteeism due to the drought and saltwater intrusion could be monitored.
- The need to build the capacity of teachers on the "Safe School DRR curriculum" has increased, since the curriculum provides hands-on tips and measures for schools to prevent the spread of viruses, in addition to knowledge on how to minimize the impact of drought on student's education and learning.

Health and Nutrition

- No change in the nutrition status of targeted women and children groups has been observed. The Government is actively monitoring the nutrition situation.

Gender and Protection

- Women and girls, being the primary care givers and responsible for household care, are disproportionately affected by water shortages and salinity intrusions.

³ Vietnam Disaster Management Authority, Southern Institute of Water Resources Research, Raise and Fall Project – Utrecht University and Can Tho University

Response Actions

- The Government and local authorities are closely monitoring the evolving situation. Early warning was raised in September 2019, triggering mitigation, preventative, and response actions to support affected areas:
 - Most saltwater intrusion control sluices have been functioning since late 2019 in the affected provinces. The MARD and Provincial offices have scaled up construction projects 6-13 months ahead of schedule. To date, five saltwater prevention and control projects are operational since December 2019 and January 2020. These prevention measures have significantly reduced impacts on the 2019-2020 Summer-Autumn and Winter-Spring crops compared to 2015-2016.
 - Rice production: Sowing of the 2019-2020 Winter-Spring rice crop has taken place 10 to 20 days ahead of schedule to effectively avoid the saltwater intrusion peak (1,510,000 ha sown).
 - Ben Tre: Water filters have been installed in 12 of 35 water supply stations. The Navy shipped 250m³ of fresh water in three communes of Ba Tri District. Water supply companies are providing additional water to households in Ben Tre City and Chau Thanh District. The provincial Rural Water Supply and Environmental Sanitation Center provides water for over 40,000 households.
 - Soc Trang: The water supply network has been expanded of 115km to serve 4,000 households and another 604km of pipelines will be further installed and completed soon to ensure water supply for an additional 22,400 households suffering water shortage. 2,000 remaining households will continue to be supported under other possible sources of funding through the upgrading of water supply networks. The Waco Company is drilling 8 underground wells to compensate drying out reservoirs.
 - Kien Giang: The province allocated funding for the expansion of the water supply network to reach an additional 9,000 households. Remaining affected households will be served by water trucking during the peak of the saltwater intrusion.
 - Bac Lieu: The water supply network will be expanded by 36km and four groundwater wells will be drilled.
 - Long An: The agricultural sector is proactively contacting the management unit of Dau Tieng - Phuoc Hoa reservoir to plan the discharge of saltwater on the Vam Co Dong river in time for production. In addition, the province has provided funding for 160 water storage tanks (1m³) for poor and near-poor households in Can Giuoc district.
 - Ca Mau: Since January DARD instructed the Center for Rural Water Supply and Environmental Sanitation to raise people's awareness and provide instructions on domestic water storage and use. Households facing water shortage habitually face regular annual water shortages. Currently, local people are proactively using household-based water supply solutions.
 - Tien Giang: 50 public taps have been installed to serve 2,200 households.
 - The National Institute for Nutrition (NIN) facilitated monitoring, communication and support of the most affected provinces including Tra Vinh, Kien Giang, Soc Trang, supporting the local health system to track nutrition status of women and young children. In addition, it has reviewed current sector preparedness plans and selected specific actions to be implemented starting in March.
- UN agencies are supporting and coordinating with the Government, VNDMA, national partners and INGOs to monitor impacts and respond to identified gaps, including the following activities:
 - UNDP (USD 100k) is supporting the Government with field assessments, information sharing, coordination and planning events, recovery and long-term resilience building planning.
 - UNICEF (USD 100k) is supporting WASH activities (providing 1000l water tanks) and communication campaigns on WASH, Health and Nutrition, Education, Child Protection in Ben Tre and Soc Trang.
 - UN Women and FAO (VND 600 million) are supporting community awareness raising and technical assistance in Ca Mau.
 - IFRC/VNRC (CHF 132k) launched a 3-month Disaster Relief Emergency Funding (DREF) operation (February to April) to support VNRC to assist 24,000 affected people in Ca Mau, Bac Lieu, Tra Vinh with WASH activities (intensive need assessment, deploying 12 brackish-water filtration machines, distribution of safe drinking water, improvement of WASH services through hygiene and health promotion).
 - Save the Children (USD 40k) is supporting with household water storage utilities in Ca Mau.

General Coordination

The Government through the MARD, UN agencies, the Vietnam Red Cross Society and NGOs/INGOs jointly completed a multi-cluster rapid assessment in the Mekong Delta region, with field teams completing data collection on 17 January. The [Joint Assessment Report](#) has been shared with partners and with CCNDP Vice-Chairman. According to the joint Government/NGO/UN Contingency Plan developed in 2018, National authorities, the UN, IFRC/VNRC, INGOs and partners are working in close coordination to regularly share information and closely monitor impacts in each of the provinces affected by drought and saltwater intrusion.

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