

# THE DROUGHT, WATER SCARCITY AND SALINITY INTRUSION CONTROL AND PROTECTION IN VIETNAM, AND THE VISIONS AND SOLUTIONS FOR ADAPTATION

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## Summary

Drought, water shortage, and saltwater intrusion are the natural disasters that occur rather frequently in Vietnam. During the recent time, these phenomenon have changed complicatedly with severer effect due to the impact of climate change and sea level rise. This causes large damage to agricultural production and water supply for domestic uses in different regions of the country. The reasons of the drought, water shortage, and saltwater intrusion include the objective factors regarding the climate conditions, the hydrological conditions and the exploitation activities of the water resources in the upstream parts outside of the territory, and the subjective factors regarding the operation and management of the hydraulic work systems, the quality and effectiveness of the use of the hydraulic work systems, the limited auxiliary facilities for the management and operation. Based on the identified reasons of the drought, water shortage, and saltwater intrusion, the solutions to control and prevent were implemented and gained promising results. The solutions include: to organize the implementation of the observation, inspection and projection of the water resources, drought and saline intrusion; to organize the the inventory, the distribution, and the effective use of water; to harmonize the water resources to distribute reasonably to different water demands during dry seasons; to intensify the communication and the propaganda for people to save and use water effectively, to apply the scientific and technological achievements for the management and operation of the hydraulic work system. The proposed visions to adapt and mitigate the damage due to the drought, water shortage, and saltwater intrusion comprise both the structural and non- structural solutions.

**Keywords:** *Drought, water shortage, saltwater intrusion, solutions for adaption of drought, water shortage, saltwater intrusion.*