

Abstract

The recent historical 2010 drought in the Mekong region have raised various critical concerns, especially on a possible cause from upstream dams. This study aims to investigate drought causes, impacts and adaptations in the Mekong river basin in Northern Thailand, by analyzing available reliable hydro-climate data and conducting field surveys and focus group discussions. Additional evidences are found out to indicate that upstream dams are correlated with the drought and flood event, thus the dams are a likely cause especially under regional drought conditions reflected in less precipitation and early end of rainy season. Local people vulnerability is high due to limitation of second occupations and farming diversification. Socio-economic impacts are found on river fishing, riverweed collection, riverbank gardening, and agricultural crops; but vary from site to site. The adaptations are currently limited, but some options are identified on water supply side, and shift to inland fish farming and drought-resistant crops. Recommendations on continuous monitoring, adaptation plan updates, and some mitigation measures are also provided.

Keywords: Mekong water changes, Climate change, Trans-boundary droughts, Drought causes and impacts, Drought mitigation and adaptation