PRESS RELEASE

New Research Points Out the Urgency to Integrate Vector Control in Government's Irrigation Expansion Efforts to Stem Potential Rise in Malaria and Bilharzia in Malawi

Lilongwe, 7 August 2025: The government of Malawi is currently setting up the largest irrigation scheme in Malawi and possibly the southern African region – the Shire Valley Transformation Programme (SVTP). This is a great effort with potential to radically boost local food production in the country and therefore contribute to the country's economic growth. This laudable effort, however, comes with potential to negatively impact health if vector control is not centrally integrated in the design and implementation of the irrigation scheme.

New findings from the Shire Valley Vector Control (Shire-Vec) Project, a research project led by the Liverpool School of Tropical Medicine (LSTM) in collaboration with local partners, warn that this large-scale irrigation expansion has the potential to increase the burden of malaria and schistosomiasis in surrounding communities. The studies highlight that irrigation infrastructure particularly where canals, drains, and stagnant water sources are poorly maintained could create favourable breeding conditions for disease-carrying mosquitoes and snails that transmit vector-borne diseases such as Malaria and Bilharzia.

The research, conducted around the SVTP in Chikwawa and Nsanje, points to the need to incorporate vector-borne disease (VBD) control measures into the planning, implementation, and maintenance of irrigation schemes to reduce possible health risks.

Findings show that stagnant water resulting from irrigation activities may contribute to higher mosquito and snail populations, increasing the risk of disease transmission. Despite this, national policies including the 2024 National Irrigation Policy do not explicitly address the potential health risks associated with irrigation development. In addition, ministries responsible for health, agriculture, irrigation, and the environment often operate independently, with no formal mechanisms for joint planning or coordination on VBD control.

The studies also observed that communities living near irrigation sites face heightened vulnerability, with school-aged children particularly at risk. These populations are often underserved by existing health interventions. However, the research identified several promising practices, including community-led canal clearing and innovative tools such as ivermectin-treated cattle andAttractive Targeted Sugar Baits (ATSBs), which have the potential to reduce disease vector populations if applied appropriately.

Based on this evidence, researchers are recommending four key actions. First, integrate VBD control into the design, construction, and operation of irrigation schemes and update relevant policy frameworks on the same. Second, formalise intersectoral collaboration through a "One Health" approach, which is a collaborative effort from all stakeholders (human health, animal health, and the environment) to address health issues. Third, invest in and scale up evidence-informed interventions that are context-specific and cost-effective.

The Shire-Vec Project is a four-year research collaboration between the LSTM in collaboration with the Malaria Alert Centre (MAC), the Malawi-Liverpool-Wellcome Clinical Research Programme (MLW), Kamuzu University of Health Sciences (KUHeS), and the African Institute for Development Policy (AFIDEP) The project is funded by the UK National Institute for Health and Care Research (NIHR) and aims to support the integration of VBD management into Malawi's irrigation and agricultural development frameworks.