Working with gene drive in an African context: regulatory gaps and challenges

Brian B. Tarimo^{1*}

¹Ifakara Health Institute-Bagamoyo Office, Bagamoyo, United Republic of Tanzania

*e-mail: btarimo@ihi.or.tz

Abstract

Gene drives, a genetic technology that promotes the preferential inheritance of specific traits, offer great potential for addressing public health and environmental issues. With growing interest in gene drive research, the global policy and governance environment is rapidly evolving, with international organizations issuing guidance on safe, fair, and responsible conduct. Herein, we provide an overview of these developments and their implications for gene drive research, particularly in the African context. We focus on the challenges of regulatory gaps, stakeholder engagement, and risk analysis in gene drive research and explore the state of research and policy in gene drive applications for environmental conservation.

Key words: gene drive, malaria, mosquitoes, biosafety