



# Integrated Behavioural Science and Local Knowledge

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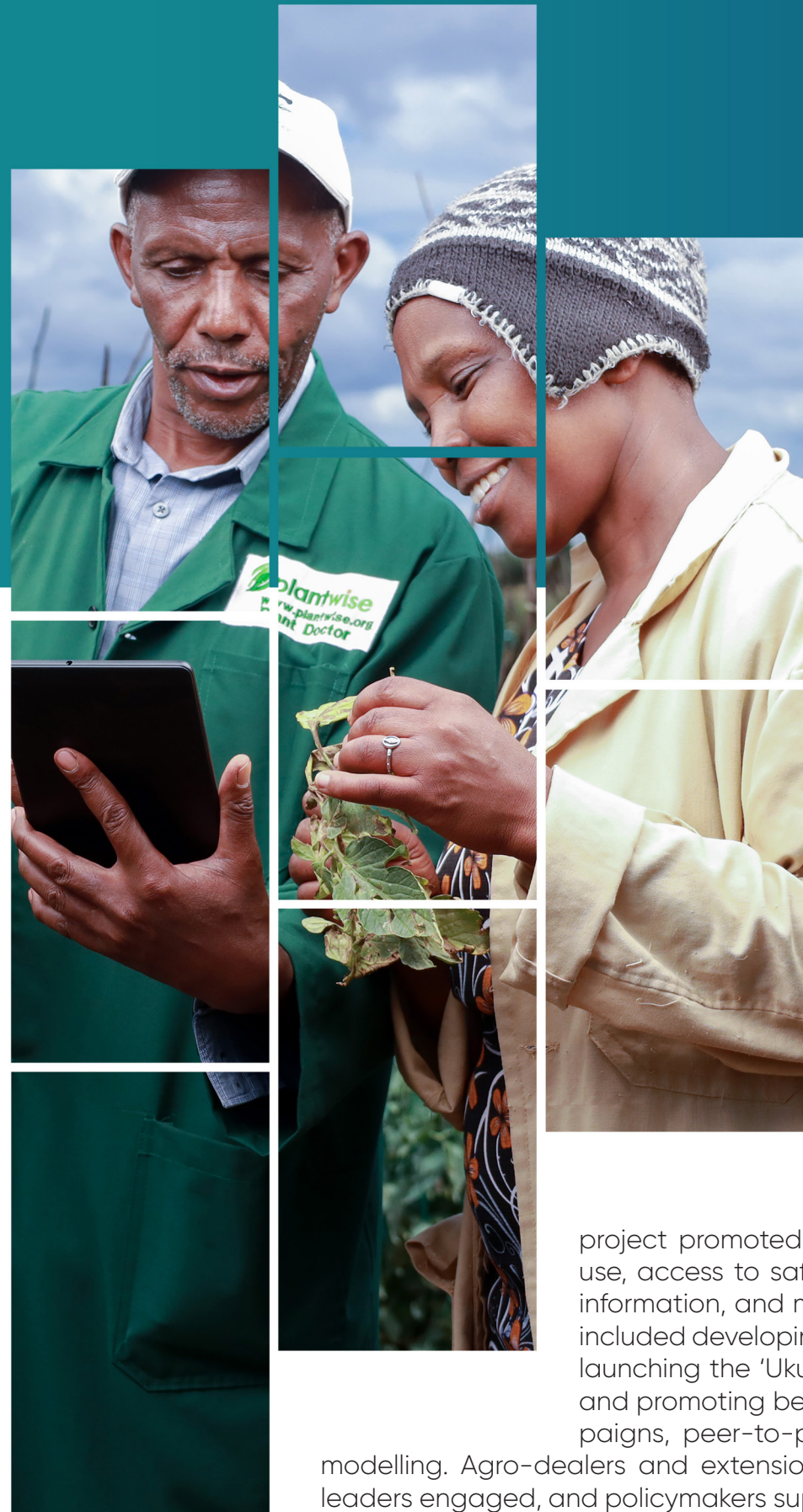
## Introduction:

Unsafe use of pesticides in Kenya endangers human and animal health as well as the environment. Farmers often don't wear Personal Protective Equipment, over-spray, or use incorrect/unapproved products. Farmers also harvest and sell produce before the pesticide's pre-harvest interval expires. Limited availability and knowledge of biological alternatives along with inadequate access to reliable pest management information exacerbate these issues.

## Methods:

The pesticides risk reduction project implemented in Nakuru County in partnership with Centre for Agriculture and Bioscience International, emphasized the interconnected health of humans, animals, and environment, integrating SBC models and strategies into the One Health approach for optimal outcomes.

Targeting 1,194 smallholder farmers with 22 agro-dealers, 7,400 community members, 18 extension workers, and policymakers as secondary and tertiary targets, the project promoted four key behaviours: safe pesticide use, access to safer alternatives, reliable pest control information, and market-safe produce. SBC strategies included developing a pesticide risk reduction strategy, launching the 'Ukulima True' (True Farming) campaign, and promoting behaviour change through radio campaigns, peer-to-peer learning, and lead farmer role modelling. Agro-dealers and extension workers were trained, community leaders engaged, and policymakers supported for policy dissemination and coordination.





## Results:

The project evaluation showed significant improvements in pesticide management among food producers. The use of at least one Integrated Pest Management (IPM) technology rose from 85.8% to 97.6%, and monitoring fields for pests increased from 45% to 85.7%. Knowledge on pesticide label use improved from 84.5% to 94.2%. PPE increased from 22.7% to 50.4%. Awareness and use of SSP services grew from 2.7% to 18.6%. Sprayer calibration practices increased from 45.9% to 72.2%, and observance of the pre-harvest interval rose from 64.2% to 86.4%. Awareness of pesticide risks increased from 42.9% to 66.8%, and access to reliable pesticide information rose from 40.4% to 71.4%.



# Conclusion:

By integrating SBC approaches within the One Health framework, the relationship between pesticide risk reduction and overall health can be strengthened. This integrated strategy promotes sustainable agricultural practices, enhances health outcomes across species, and protects environmental integrity.

