RESEARCH PROGRAM ON Roots, Tubers and Bananas

Recovering Banana Production from Bunchy

Top Disease in sub-Saharan Africa

CONSTRAINT

BBTD devastates banana production

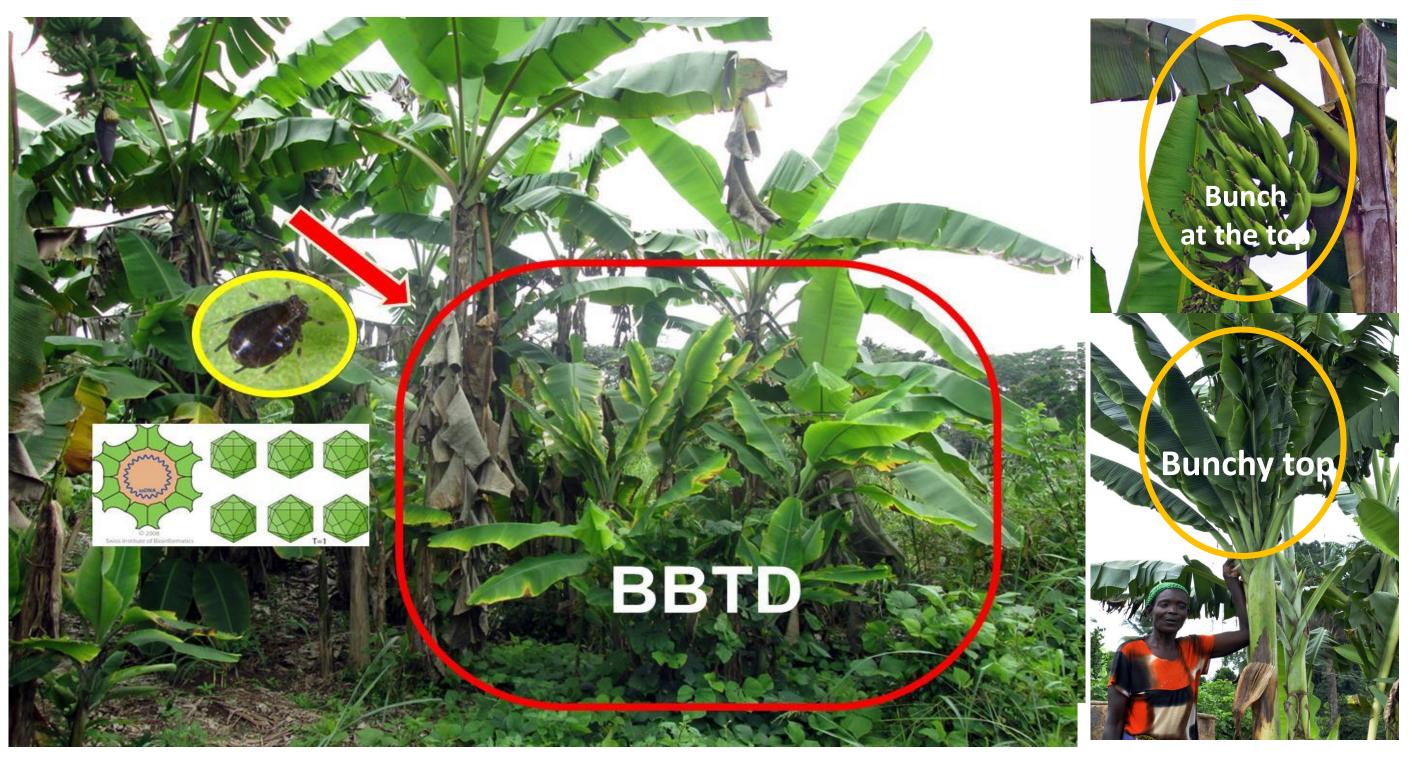




Fig 1. Banana bunchy top disease (BBTD) drastically reduced production (70 to 100%) within two seasons. Banana aphid transmits the causal virus, BBTV.

TECHNOLOGY TO RECOVER BANANA

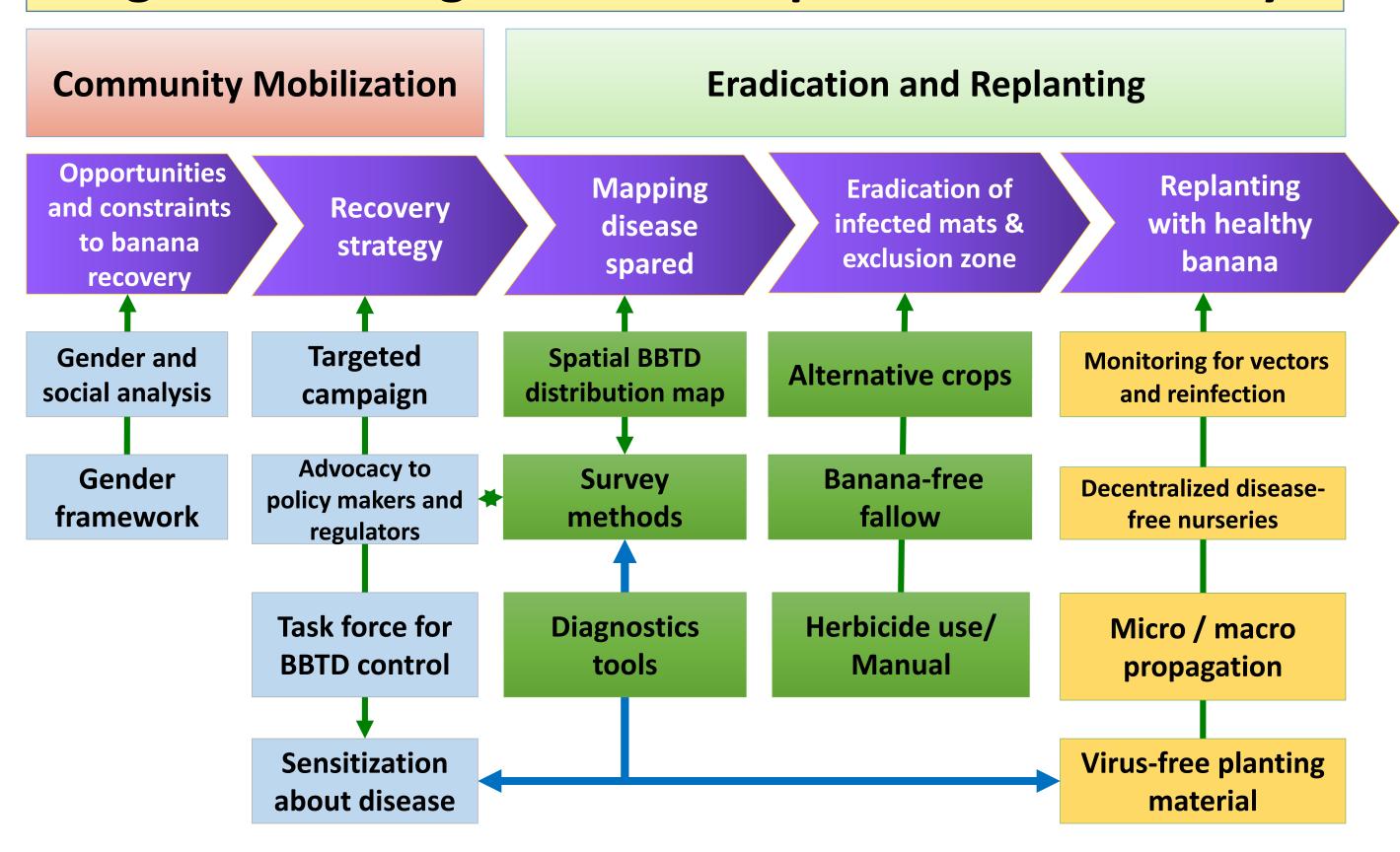
Due to unavailability of resistant cultivars, the multidisciplinary curative and preventive approaches have been used at community scale to recover and enhance banana production in stages (Figs 2 & 4).

Community Mobilization: Baseline on cropping systems and gender roles, sucker flows, awareness and advocacy and strategies for clean planting material and mat eradication

Eradication and Replanting: Establishment of disease-free nurseries for healthy planting material, coupled with disease exclusion using banana free-fallow period and aphid control to prevent reinfection.

Development and deployment of improved survey and diagnostic tools: Used for mapping BBTD spread, certification of planting material and monitoring reinfections.

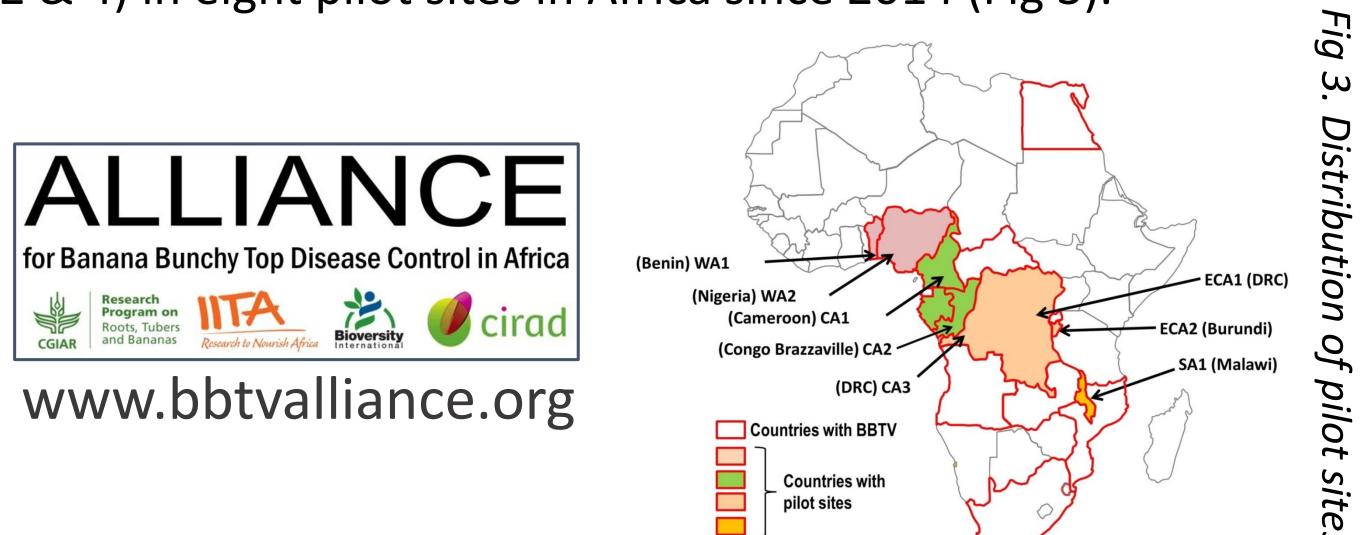
Fig 2. Main stages in banana production recovery



SCALING STRATEGY

Partnerships and Pilot Site approach

Multistakeholder, RTB-led international partnership, **BBTV ALLIANCE**, formed to implement banana recover strategy (Figs 2 & 4) in eight pilot sites in Africa since 2014 (Fig 3).



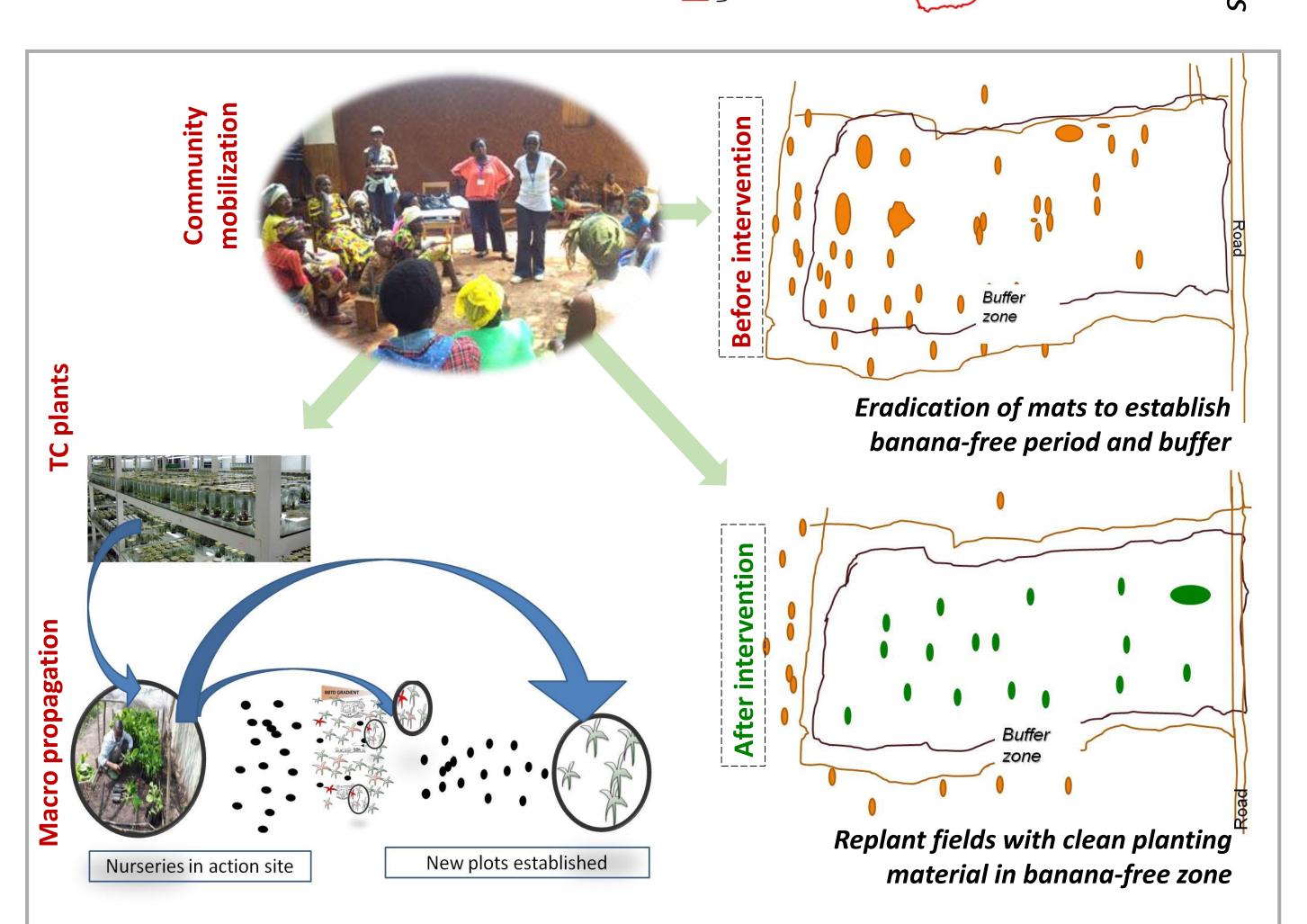


Fig 4. Typical pilot site (Nkhatabay, Malawi): Community engagement by the RTB gender team \rightarrow Mapping and eradication of infected matts \rightarrow Multiplication of virus-free plants \rightarrow replanting after fallow period \rightarrow monitoring replanted fields.

BENEFICIARIES

•Smallholder farmers mobilize knowledge and practices to recover and maintain banana production in spite of BBTD with lower cost and lower risk to healthy seed supply. •Researchers and extensionists manage BBTD more effectively with advance science technologies. •Income generating opportunities to women and youth from planting material business. •Better plant quarantine policies to limit the spread of BBTV

CRITICAL GAPS AND NEXT STEPS

•Low awareness on BBTD threat to banana. •Weak commitment to exclusion and containment to reduce. •Role of suckers in replanted fields.

KEY PARTNERS FOR SCALING

•New scaling projects are being built on 'ALLIANCE' strategy and partnerships. To date, new funding grants realized from RTB (BA3.4), BMGF (Benin and Nigeria), MINADER (Cameroon) and FAO (Central Africa Plant Protection Office). NARES, private sector and youth groups will involve in scaling technologies.