

(1) Recovery of production affected by Banana Bunchy Top Virus (BBTV)	
Countries	22 (4 from Asia and 18 from Africa) where BBTV is either already present or will very likely spread in the near future if no major intervention occurs.
Cultivar groups considered	6 (all cultivar groups used for priority assessment)
Current and likely future spread	The estimation of the current and likely future spread of the disease was made separately for each cultivar group and country . For most countries a slower spread and thus lower future affected area was assumed for the ABB cultivar group. For countries with commercial plantations (Cameroon, Ghana, Mozambique, Philippines) some share of the AAA Cavendish production area was excluded from the target domain since clean seed and good management practices are used and thus infection with BBTV is less likely.
Benefits:	
- Increase in yield	80%
- Reduction in postharvest losses	No effect
Production area lost	Production area lost due to the disease (area where production had to be discontinued due to high disease pressure and large yield losses; e.g., in the Philippines, Malawi, DRC) has been disregarded .
Production costs	40% increase mainly due to higher costs associated with purchase of clean seed.
Adoption ceiling	50% of the (future) area affected by BBTV given the high yield losses caused by the disease. 8-45% of the total national production area
Research period	9 years
Technology release	First adoption in 3, 5, or 7 years (country-specific)
Time from first adoption until estimated adoption ceiling will be reached	8 years for all countries
Probability of success (up-take of technology)	80% for countries with stronger NARS and extension systems. 50% for countries where challenges to make the innovation available to farmers will likely be larger. Given that the recovery from BBTV will focus on making clean seed available and improving production practices to avoid the spread of the disease, the probability of success is rather high.
R&D costs	\$34.4 million
Additional country-level costs	\$34.4 million (matched 1:1 with R&D costs)
Resource persons	Charles Staver, Guy Blomme, Lava Kumar, Celestin Niyongere

(1) Recovery from BBTV

Country	Production Area ('000 ha)	Area Threatened by/ Susceptible to BBTV (% of total)	Current Spread of BBTV (% of potentially threatened area)	Spread of BBTV in 25 years without Major Intervention (% of threatened area)	Adoption Ceiling (% of area affected in 25 years)
Angola	36.76	100.00	14.61	53.83	63
Benin	14.42	100.00	1.00	39.98	50
Burundi	371.05	100.00	5.00	37.84	50
Cameroon	184.41	86.44	13.19	44.85	50
CAR	49.17	100.00	14.76	59.17	50
Congo	20.93	100.00	14.80	59.28	50
DRC	391.62	100.00	20.00	43.66	60
Equ. Guinea	9.49	100.00	5.00	67.47	50
Gabon	25.37	100.00	29.44	68.87	50
Ghana	191.75	92.80	0.00	34.82	50
Kenya	80.49	100.00	0.00	18.14	50
Malawi	26.99	100.00	41.11	74.82	60
Mozambique	27.86	55.67	0.00	19.27	50
Nigeria	455.55	100.00	1.00	48.84	50
Rwanda	343.64	100.00	1.00	33.59	50
Tanzania	537.68	100.00	0.00	19.07	50
Uganda	1,763.98	100.00	0.00	20.78	50
Zimbabwe	18.30	100.00	0.00	19.92	50
Indonesia	320.03	100.00	11.02	30.06	50
Philippines	391.88	79.14	9.15	20.82	50
Sri Lanka	52.04	100.00	5.00	29.50	50
Vietnam	102.17	100.00	3.39	25.90	50

Source: Production information from FruiTrop (2010); threatened and affected area and adoption ceiling are estimates from resource persons; current and estimated future spread of constraint displayed in table above is weighted average of estimates by cultivar group.

(1) Recovery from BBTV (continued)

Country	Adoption Ceiling (% of total area) ($A_{t,max}$)	Years to First Adoption (t_0)	Years to $A_{t,max}$	Yield Increase (%)	Reduction in Postharvest Losses (%)	Change in Input Costs (%)	Probability of Success (%)
Angola	34	7	8	80	0	40	50
Benin	20	5	8	80	0	40	50
Burundi	19	3	8	80	0	40	80
Cameroon	19	5	8	80	0	40	80
CAR	30	5	8	80	0	40	50
Congo	30	3	8	80	0	40	80
DRC	24	3	8	80	0	40	50
Equ. Guinea	34	5	8	80	0	40	50
Gabon	34	3	8	80	0	40	80
Ghana	16	7	8	80	0	40	80
Kenya	9	7	8	80	0	40	80
Malawi	45	3	8	80	0	40	80
Mozambique	5	7	8	80	0	40	50
Nigeria	24	5	8	80	0	40	80
Rwanda	17	5	8	80	0	40	80
Tanzania	10	5	8	80	0	40	80
Uganda	10	7	8	80	0	40	80
Zimbabwe	10	7	8	80	0	40	50
Indonesia	15	3	8	80	0	40	80
Philippines	8	3	8	80	0	40	80
Sri Lanka	15	3	8	80	0	40	80
Vietnam	13	3	8	80	0	40	80

Source: Expert estimates.