(6c)	**Fusarium Research Option C: Development of Fusarium resistant banana cultivars**
Countries	**28** (11 African countries, 9 Asian countries, 8 LAC countries) where Fusarium is either already present or will very likely spread in the near future if no major intervention occurs.
Cultivar groups considered	**6** **AAA Cavendish, Other AAA, EAH AAA, AAB Plantain, Other AAB, ABB** in all countries considered. The research carried out will provide resistant varieties to all Fusarium races.
Current and likely future spread	Although Fusarium is already present in some countries, we assume that the production area currently affected is zero percent in all countries since there are no reliable figures about the actual spread. The estimation of the likely future spread of the disease was made **separately for each cultivar group and country** by applying a 'Foc scale' that we developed. We assumed that 100% of the banana production area in the included countries is susceptible to Foc.
Benefits: - Increase in yield - Reduction in postharvest losses	 **100%** (losses avoided) **No effect**
Production costs	**No effect**
Adoption ceiling	**80% of the affected targeted area** across all countries. This translates into adoption ceilings of **0.8-40.7% of the total national production area.**
Research period	**15 years**
Technology release	The technology will be available in **17 years** in all included countries (15 years of research plus 2 years until farmers start adopting the innovation)
Time from first adoption until estimated adoption ceiling will be reached	**15 years**
Probability of success (up-take of technology)	**90%**
R&D costs	**US$47.73 million**
Additional country-level costs	**US$47.73 million** (matched 1:1 with R&D costs)
Resource persons	Charles Staver, Miguel Dita

(6c) Fusarium Research Option C: Development of Fusarium resistant banana cultivars

Country	Production Area ('000 ha)	Area threatened by/susceptible to Foc (% of production area)	Current estimated spread of Foc (% of production area)	Spread of Foc in 25 years (% of threatened area)	Adoption Ceiling (% of area affected in 25 years)	Adoption Ceiling (% of production area) (At_{max})	Years to First Adoption (t_0)	Years to reach maximum adoption At_{max}	Yield Increase (%)	Reduction in Post-harvest Losses (%)	Change in Input Costs (%)	Probability of Success (up-take of technology) (%)
Brazil	498.45	100	0	2.24	80	1.79	17	15	100	0	0	90
Burundi	371.05	100	0	14.69	80	11.75	17	15	100	0	0	90
Cameroon	184.41	100	0	14.80	80	11.84	17	15	100	0	0	90
China	398.19	100	0	50.81	80	40.65	17	15	100	0	0	90
Colombia	461.43	100	0	3.77	80	3.01	17	15	100	0	0	90
Congo, D.R.	391.62	100	0	15.46	80	12.37	17	15	100	0	0	90
Costa Rica	61.22	100	0	3.77	80	3.01	17	15	100	0	0	90
Côte d'Ivoire	411.19	100	0	11.94	80	9.55	17	15	100	0	0	90
Ecuador	266.88	100	0	3.77	80	3.01	17	15	100	0	0	90
Ghana	191.75	100	0	12.79	80	10.23	17	15	100	0	0	90
Guatemala	50.55	100	0	3.93	80	3.14	17	15	100	0	0	90
India	1,858.28	100	0	7.09	80	5.67	17	15	100	0	0	90
Indonesia	320.03	100	0	28.63	80	22.90	17	15	100	0	0	90
Kenya	80.49	100	0	7.82	80	6.25	17	15	100	0	0	90
Malaysia	56.82	100	0	14.92	80	11.93	17	15	100	0	0	90
Mexico	86.31	100	0	2.23	80	1.78	17	15	100	0	0	90
Mozambique	27.86	100	0	38.41	80	30.73	17	15	100	0	0	90
Myanmar	65.43	100	0	37.72	80	30.17	17	15	100	0	0	90
Nicaragua	14.46	100	0	1.00	80	0.80	17	15	100	0	0	90
Nigeria	455.55	100	0	3.77	80	3.01	17	15	100	0	0	90
Pakistan	31.98	100	0	50.45	80	40.36	17	15	100	0	0	90
Peru	120.83	100	0	2.24	80	1.79	17	15	100	0	0	90
Philippines	391.88	100	0	50.80	80	40.64	17	15	100	0	0	90
Rwanda	343.64	100	0	4.61	80	3.68	17	15	100	0	0	90
Tanzania	537.68	100	0	21.49	80	17.19	17	15	100	0	0	90
Thailand	132.08	100	0	38.01	80	30.41	17	15	100	0	0	90
Uganda	1,866.25	100	0	3.77	80	3.01	17	15	100	0	0	90
Vietnam	102.17	100	0	50.77	80	40.62	17	15	100	0	0	90

Source: Strategic Assessment of Banana Research Priorities report