As agriculture struggles to support the rapidly growing global population, plant disease reduces the production and quality of food, fibre and biofuel crops. Losses may be catastrophic or chronic, but on average account for 42% of the production of the six most important food crops. Losses due to postharvest disease can be disastrous, especially when farms are a long way from markets and infrastructure and supply chain practices are poor. Many postharvest pathogens also produce toxins that create serious health problems for consumers.  
Farmers spend billions of dollars are on disease management, often without adequate technical support, resulting in poor disease control, pollution and harmful results. In addition, plant disease can devastate natural ecosystems, compounding environmental problems caused by habitat loss and poor land management.  
Crop losses tend to be greatest in tropical countries where environmental conditions are particularly favourable, incomes are low and knowledge and investments in crop health management are minimal. Disease losses can mean that communities become dependent on imported foods, often replacing a balanced diet with processed foods that create further health problems.  
Plant breeders have very successfully increased potential crop yields, however the impacts of crop breeding for resource-poor farmers have been disappointing. Much greater emphasis is required to address reasons for the gap between potential and actual yields achieved by farmers, and research that is focussed on narrowing this gap.