The transboundary crop pest and disease (P&D) outbreaks over large geographical regions jeopardizes the food security and have broad economic, social and environmental impacts. The climate change accelerated transboundary P&D are responsible for food chain catastrophes and upsurge of minor pest into major. Such accelerated events require more attention on a greater scale to strengthen food security and protect the livelihoods of poor and most vulnerable countries of the world. The ICRISAT, Center of Excellence on Climate Change Research for Plant Protection (CoE-CCRPP) is a joint initiative with Department of Science and Technology and ICRISAT to study impact of climate change on agriculture P&D in an inclusive manner with key audience (adaptation funding entities, planners, policymakers and practitioners) at national and regional level (NARS, ARIs and CGIAR). The CoE-CCRPP emphasis is on mapping the potential pest risk distribution and forecasting; short and medium term climate resilient pest management practices; as well as capacity building of various stakeholders on climate resilient agriculture. The ICRISAT center, further focus to determine and establish priority pest indicators ranking, risk assessment and distribution, socio-economics of P&D to assist in enhancement of pest policies, pre-emptive breeding, improved P&D monitoring and surveillance to strengthen global efforts to alleviate P&D complications on sustainable agriculture and food security.