

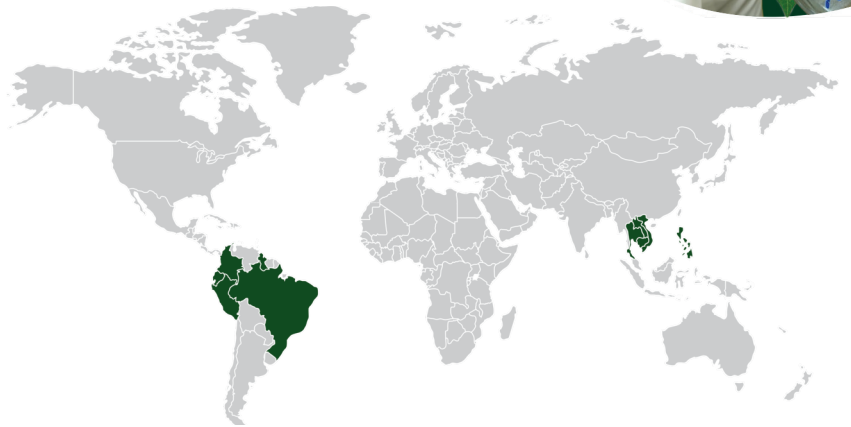
## Goal .....

Accelerate pathogen identification to implement strategic and pre-emptive responses for disease management that are economically viable, environmentally sound, and help protect and enhance human health.



## Where we work .....

Our central Virology and Crop Protection Laboratory is located at the Americas Hub in Colombia. In 2022 we opened the Molecular Pathology Laboratory in Laos, to support regional pest and disease outbreaks in Southeast Asia. Current projects are in close collaboration with colleagues in Colombia, Peru, Ecuador, French Guiana, Brazil, Cambodia, Vietnam, Lao PDR, Thailand, and Philippines.



The boundaries and names shown on this map do not imply official endorsement or acceptance by the Alliance of Bioversity International and CIAT.

## How we do it .....

Research-oriented and experimental validation of host-pathogen interactions and disease epidemiology.



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Certification and delivery of disease-free planting material to farmers.



Evaluation and implementation of novel diagnostic tools for timely identification and tracking of pests and pathogens.



Characterization of disease resistance sources identified through breeding programs.

## The impact .....



Development of disease experimental models to accelerate the identification of transboundary and emerging pathogens.



Data driven disease control strategies (identification or development of resistant varieties, targeted chemical control).

## Actions for innovation .....



Establishment of reference Research & Diagnostics laboratories in Colombia and Laos.



Building regional capacity and networks to tackle transboundary and emergent diseases through advanced workshops and awareness campaigns.



Community monitoring and rapid communication of disease occurrence through an integrated digital platform: PestDisPlace.

## Technologies .....



**Plant disease biological models:** We use these models to understand and predict the dynamics of plant diseases, predict interventions and design more efficient molecular diagnostic tools. These models include specific plant genotypes and pathogen strains exposed to variable conditions under controlled conditions.



**Metagenomics and bioinformatics:** We have implemented the use of next generation sequencing technologies (illumina, PacBio, Nanopore) to support disease diagnostics. These tools allow us to accelerate the pathobiome analysis of diseased plants and identify pathogens at genome level.



**Community disease monitoring:** We have designed PestDisPlace an open digital platform aiming to collect, integrate, curate and analyze field and molecular data on the global occurrence of crop pests and diseases.

## Our donors .....



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## Our partnerships .....



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the program, visit us:



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