

# A GLOBAL CONSERVATION STRATEGY FOR COFFEE GENETIC RESOURCES

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# Coffee has got Sustainability problems

Climate Change

Pests and Diseases

Volume Demands

Quality Demands

Narrow genetic base



**WORLD COFFEE  
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**Kew**

ROYAL BOTANIC GARDENS



**CIAT**

International Center for Tropical Agriculture  
Since 1967 / *Science to cultivate change*

# The Importance of Genetic Diversity

- **Genetic diversity** provides the 'toolbox' for crop improvement via 'classic' plant breeding



# Crops facing similar issues

- Citrus 'greening'
- Fusarium Wilt in Banana

**NO GERMPLASM banks for resistant genes means relying on GMOs.**



# A Global Conservation Strategy for Coffee Genetic Resources

- Crop conservation strategies have been completed for nearly every major crop, but not yet coffee



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# A Global Conservation Strategy for Coffee Genetic Resources

## What we have done so far...

- Desk study
- Survey of Major Coffee Collections (31)
- User's survey (6)
- Site Visits (8)



# What did we find?

“Compared to the economic importance of coffee, current conservation efforts, both *ex situ* in collections and *in situ* in natural forest ecosystems, are very poor”

- Most of the world’s coffee collections are not securely conserved or widely used
- Nationally focused serving national ‘breeding programs’
- Very limited access and exchange of material
- Lacking information systems
- Little to no safety duplication or back up of collections

# What would a better system look like?

- **Collections well maintained, organized, interlinked, available and accessible to all**
- **21<sup>st</sup> century information systems**
- **Insure safety duplication is in place**
- **Support complimentary strategies (*in situ*)**
- **Mechanism for responding to urgent needs**



# How to pay for it?

**Global Crop Trust Endowment Fund was created to fund the collections for 'treaty' crop species**

**Working with producing country governments and the coffee industry, WCR and GCT will seek new endowment funding for coffee conservation**

International Treaty on Plant Genetic Resources for Food and Agriculture

# The Global Coffee Genetic Conservation Strategy

## Next steps

- **Finalize strategy document getting input and vetting with all producing country players**
- **Identify one ‘key origin’ collection as pilot in 2017**
- **Develop needs and costs assessment of KEY origin collection**
- **Develop legally binding language on IPR and germplasm exchange and use, royalties, licensing, etc.**
- **Repeat this with other key origins and begin linking in other collections, breeding collections**



Thank You

# Why a Global System?

- Global Interdependency
- Global public goods nature of genetic resources
- Global nature of users
- Increased security of conservation
- Enhanced utilization of collections

