



Bioversity International Presentation
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Bioversity & partners R&D experiences

❖ **Key characteristics driving demand**

- ❑ **Rice** (both men & women farmers demand): high yielding; pest & disease resistance; adaptation to soil and water availability. Women have additional specific trait demands: good cooking and eating qualities; good threshing and milling qualities.
- ❑ **Millet & Sorghum**: good yields, adaptation to preparation of local dishes (e.g. tô in WCA) and brews. Long straw preferred for fencing material.
- ❑ **Groundnut & cowpea varieties**: good grain and haulm yield for use as feed to animals.
- ❑ **Banana**: farmers' preferred traits are: high yields; pest and disease resistance, strength of pseudo-stem allowing less need for propping; cooking and eating qualities; meet consumer demand for juice, beer and wine from banana.

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❖ **Who decided on design and traits to be targeted in plant breeding?**

- ❑ Breeders and Agronomists mainly in the past – leading to many cases of non-adoption of new varieties.
- ❑ Increasingly, participatory approaches are used by Breeders/Agronomists to inform assessment of trait demands & varietal selections.
- ❑ For banana, gender-differentiated analysis and end user preferences are on the list of criteria for varietal selection.

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❖ **How do we know rapid adoption is occurring?**

- ❑ Increased relative demand for seeds of adopted variety.
- ❑ Increasing demand for consumption.
- ❑ For banana, increased demand for clean/disease-free tissue cultured planting materials where formal systems.
- ❑ **Sources for assessing rapid adoption:** farmers; extension services; NGOs working with farmers; TC labs for banana; traders or processors purchasing banana products from farmers.

❖ **How has rapid adoption occurred? Who made it happen?**

- ❑ Farmer-to-farmer linkages & networking
- ❑ First-hand observations thru' participatory trials.
- ❑ NGOs rapid adoption of variety happen.
- ❑ Tissue culture (TC) labs (e.g. from private sector) providing reliable source of disease-free banana planting materials.

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- ❖ **Where low adoption of variety with desired characteristics. What are the core reasons, barriers and management change required?**
 - ❑ Non-functional or poor formal seed supply system.
 - ❑ Low quality of seeds available through informal seed systems.
 - ❑ Differential preferences for agronomic versus organoleptic traits in unbalanced combinations:
 - in Dominican Republic, FHIA 21 banana (high yielding and resistant to black Sigatoka) is preferred by processors for banana chips BUT rejected by small-scale farmers who disliked organoleptic properties compared to their traditional varieties of cooking banana.
 - ❑ Bulkiness of banana planting materials and lack of access to tissue culture materials.



Thank you

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