

# Reducing Grain Storage Losses on Smallholder Farms

Purdue Improved Crop Storage (PICS)



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**PICS**  
Purdue Improved Crop Storage

# Storage Losses



## Direct Impact of Insect damage

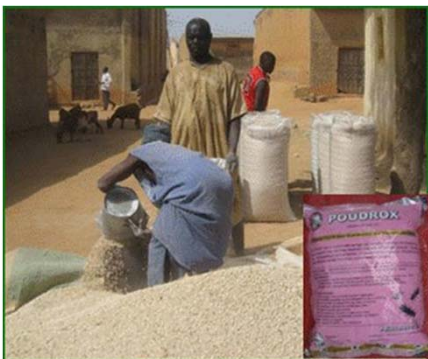
- ✓ Quantitative loss- weight loss
- ✓ Qualitative loss - toxins, taste, smell



## Indirect Impact of Insect damage

- ✓ Excessive use of pesticides
- ✓ Loss of consumer confidence

- Insecticides are becoming ineffective..
- Consumers demand safe food



**August 2011: Nigeria: Killer Beans - Six Family Members Die After Meal.**

<http://allafrica.com/stories/201108251105.html>

# Growing interest in hermetic methods



**PICS Bags**



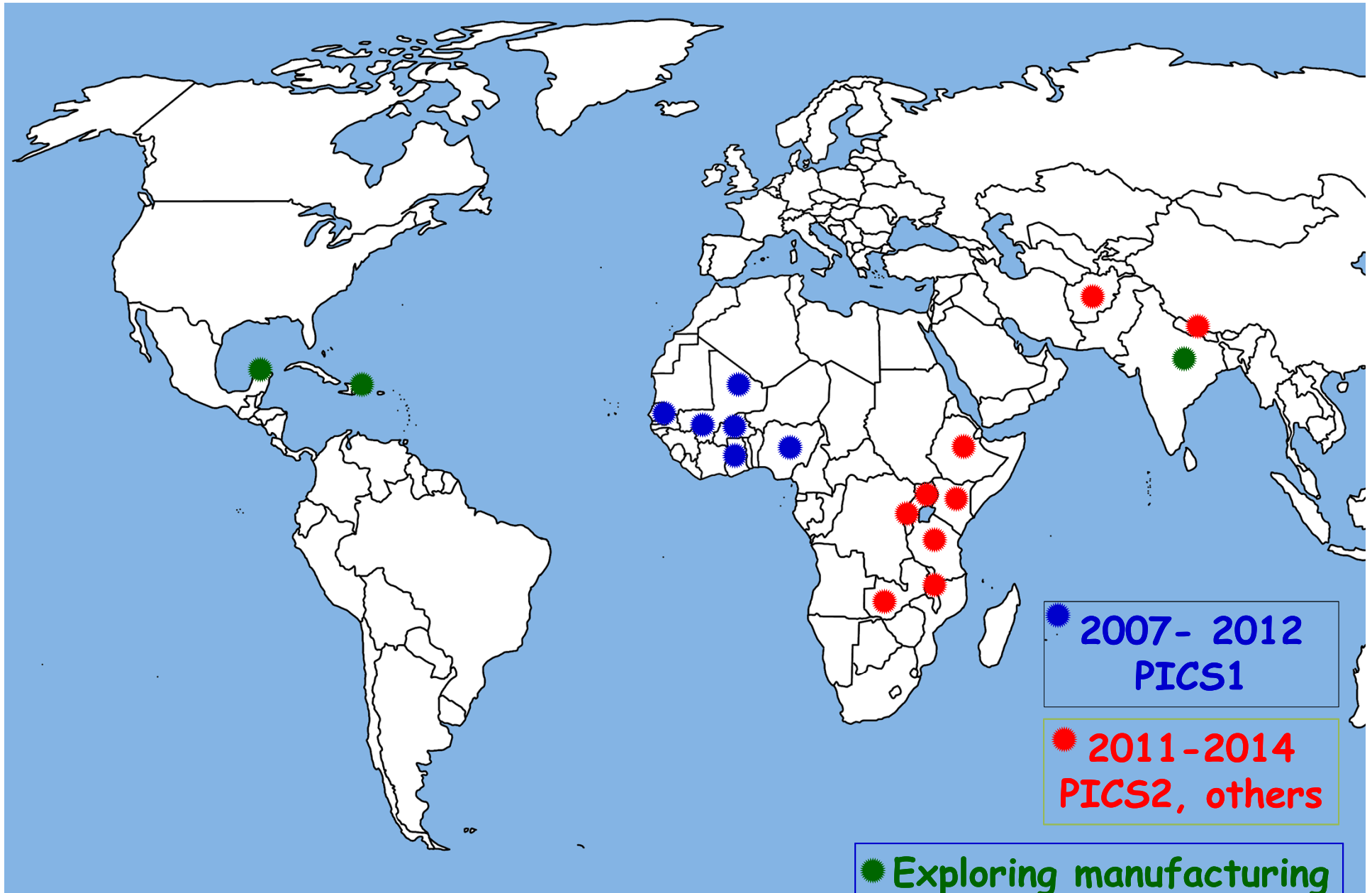
**Metal silo**



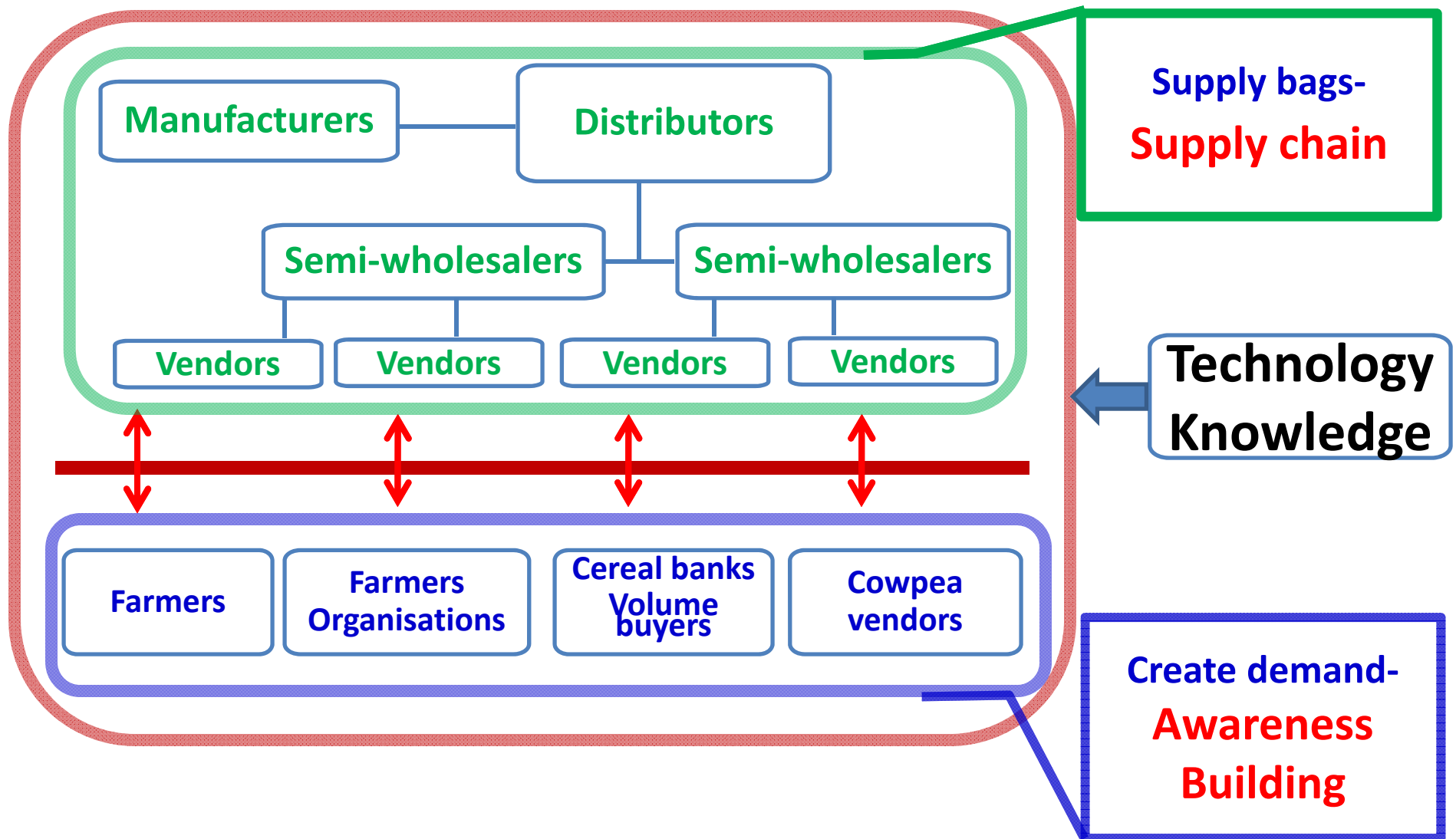
**SuperGrainbag**



# Scaling-up manufacturing of PICS Bags



# Three Key Components in Reducing Grain Storage Losses



# Capacity Building is essential



Project	Trained E. Agents
PICS1	2,626
Afghanistan	170
Kenya	150
Vendors	200

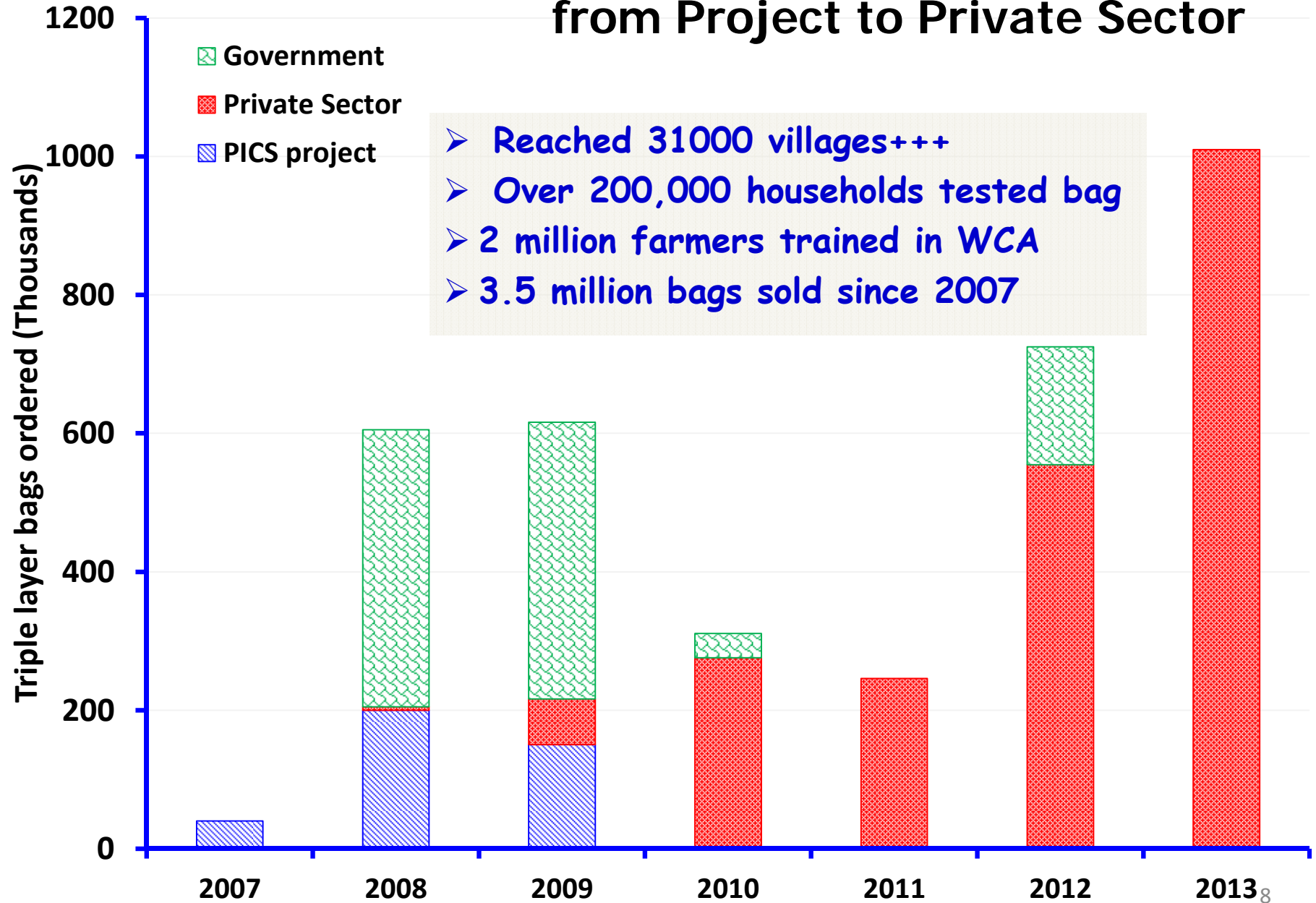


# *Scaling-up extension efforts*

- Village training- demonstrations
- Market demonstrations
- FBO and Women groups training
- Cowpea traders and processors
- Media- Radio, TV, posters, etc.



# PICS Bag Supply Chain Developed from Project to Private Sector

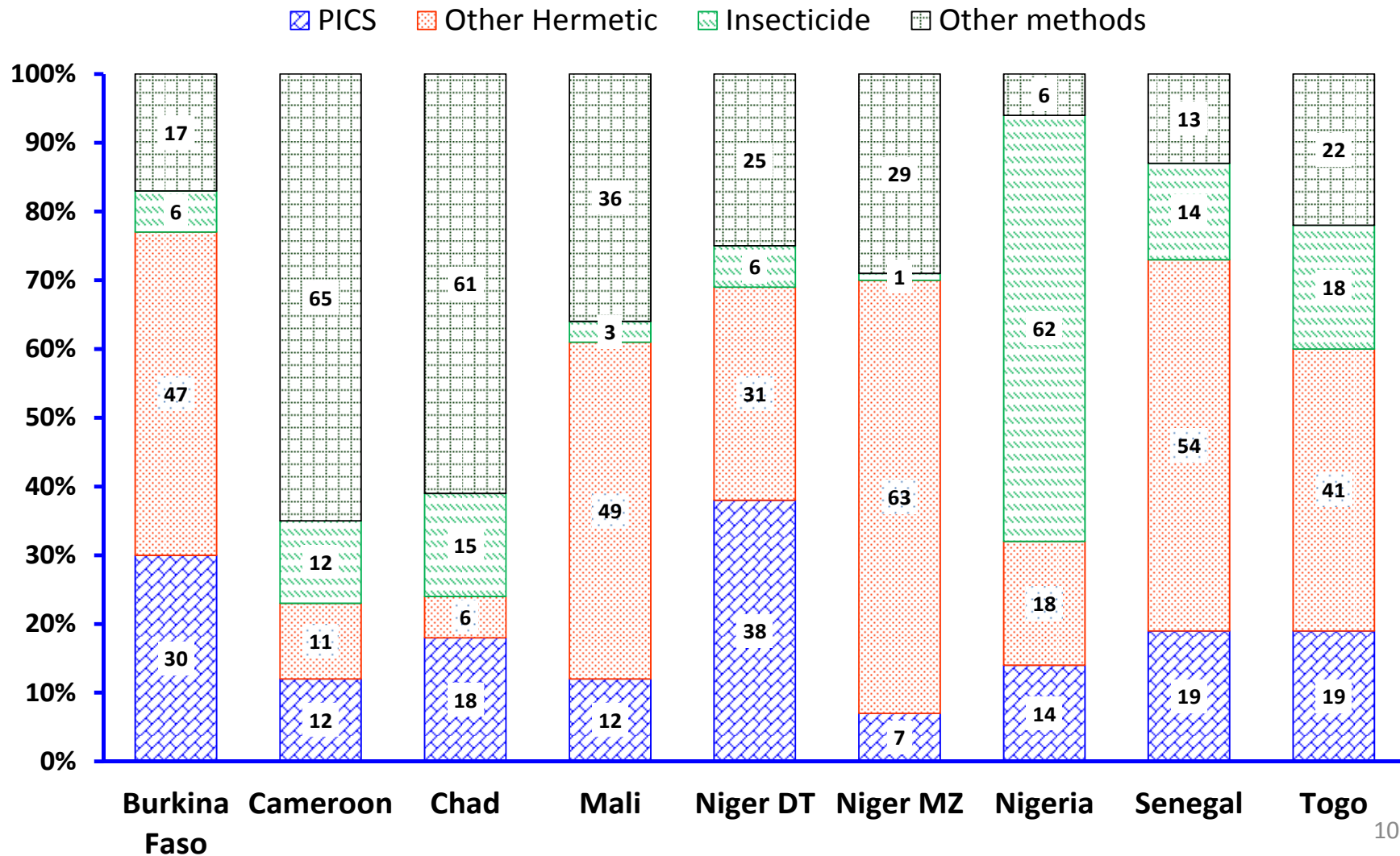




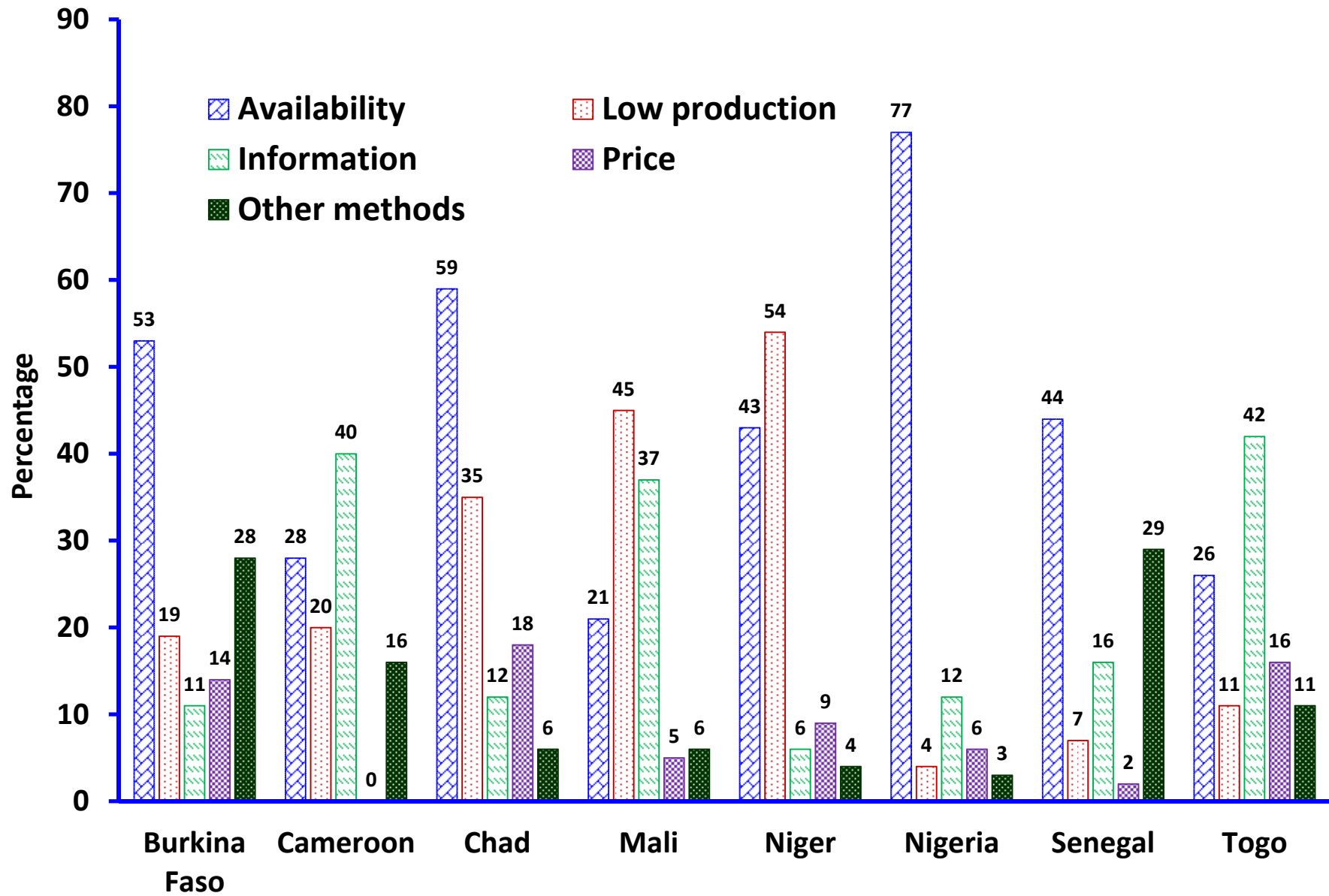


In just five years on the market in West Africa, PICS bags a commonly used farm cowpea storage method, accounting for about 19% of cowpea stored on farms

**Fig 3. Cowpea storage methods used by farmers in 2009 in Niger and Burkina Faso, and 2011 in the other countries**



# Key constraints to adoption of triple layer bags



# Acknowledgments

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**Thank  
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