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MOZAMBIQUE



IIAM

Instituto de Investigaçao Agrária de Moçambique

Conservation agriculture and drought-tolerant maize varieties 2014



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USA



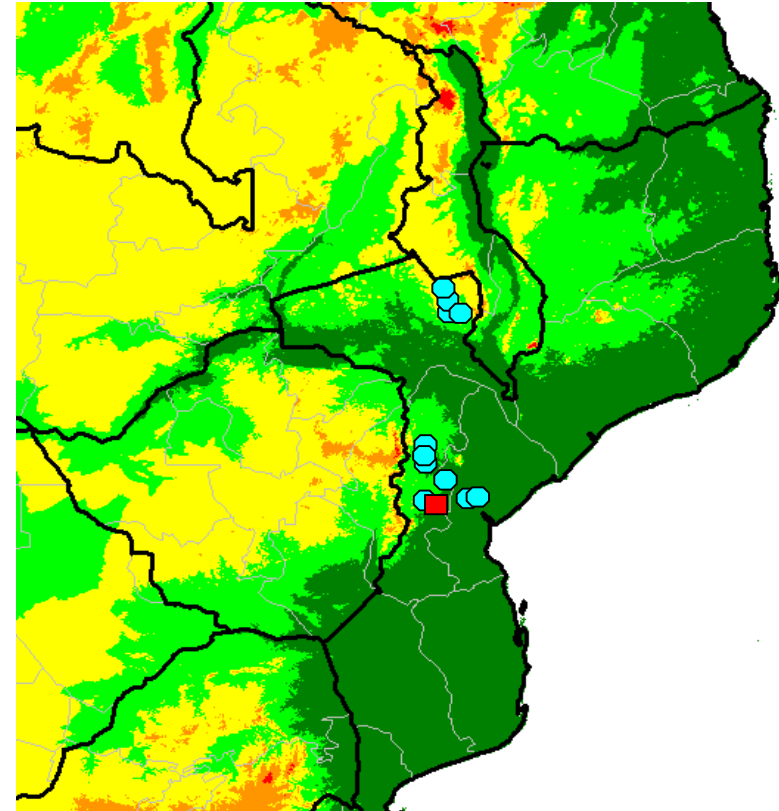
CIMMYT_{MR}

Objective of this project

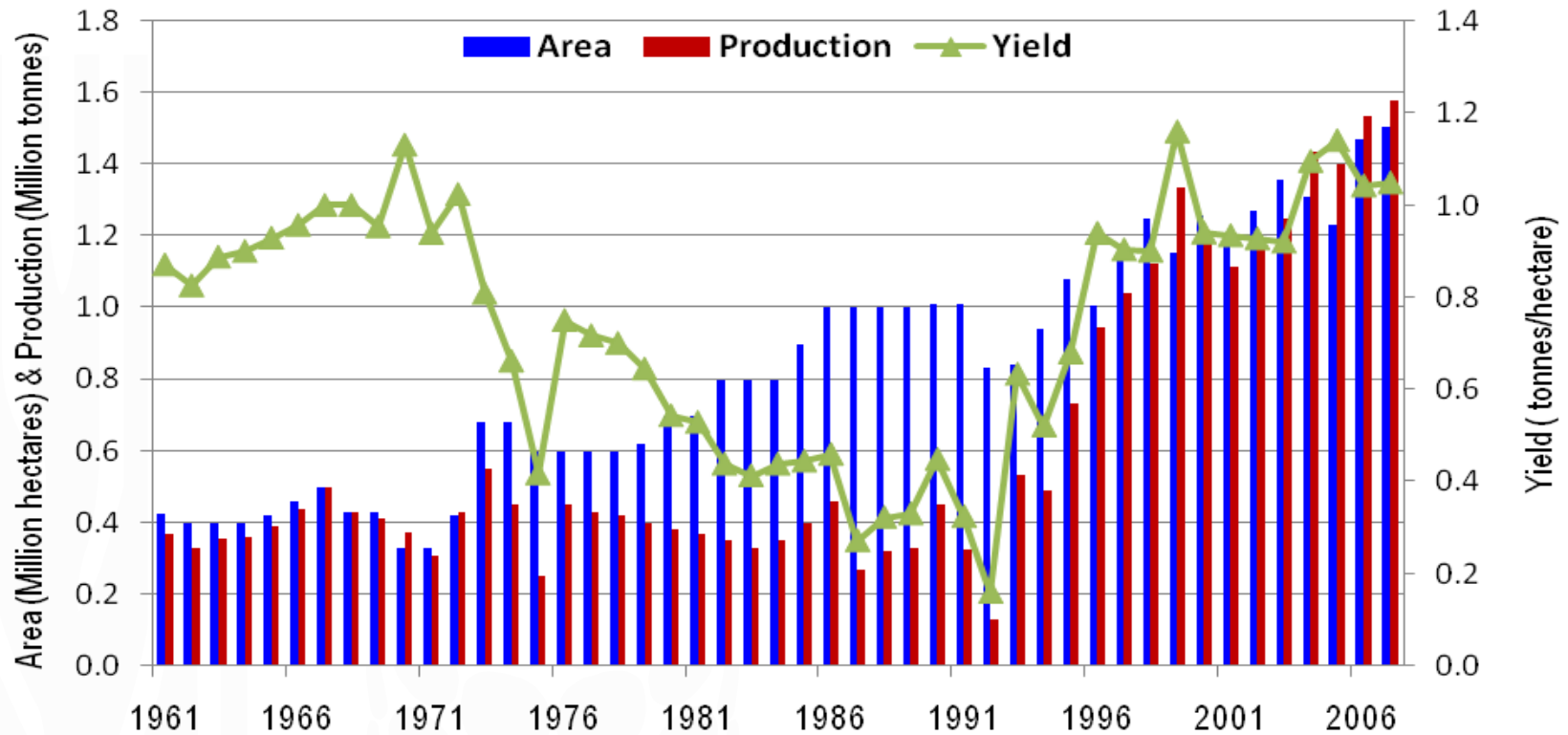
- **Develop sustainable, climate-smart technologies for smallholder farmers by integrating conservation agriculture and drought-tolerant maize varieties**
- **Overcome market constraints to seed availability in Mozambique**
- **Increase the knowledge and awareness of stakeholders about improved technologies**
- **Quantify the socio-economic impact of interventions on food security and farmers' livelihood**

Where do we operate?

- **Active in Mozambique since 2006**
- **Experiences mainly in three provinces: Manica, Sofala and Tete**
- **Mainly mid-altitude and confined to maize-growing areas**
- **Mainly small scale farmers**



Trend of maize production in Mozambique 1960 to 2007

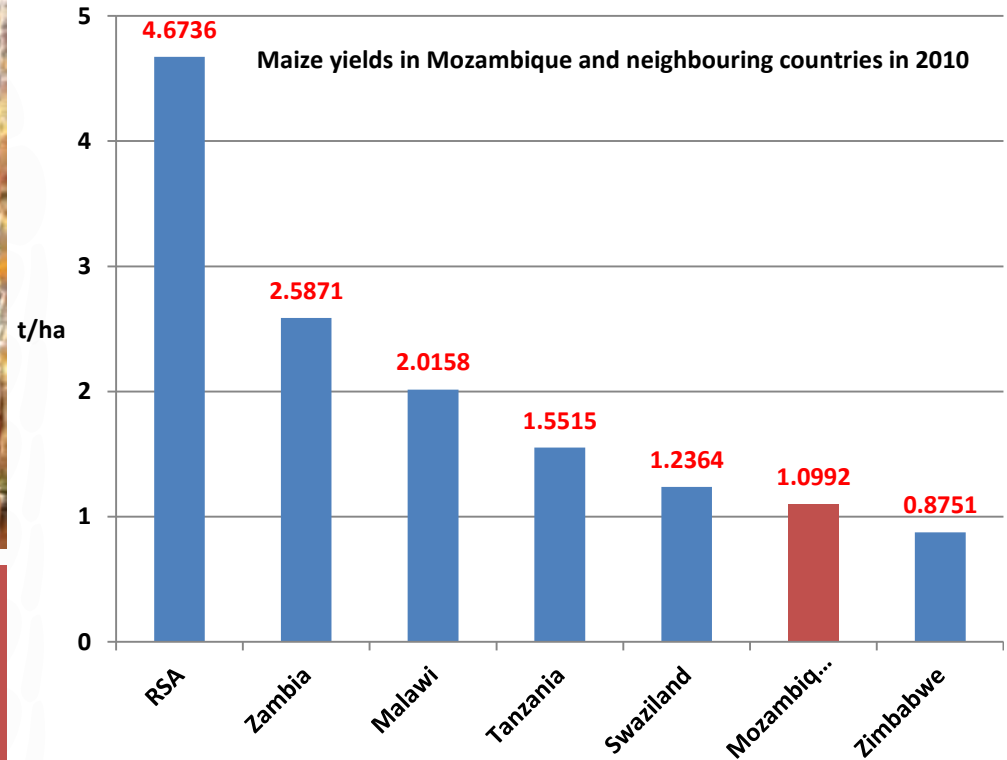


Country: Mozambique

Maize yields compared to neighbouring countries (FAOSTAT-2012)



- Maize productivity is very low particularly under farmers management practices



Conservation Agriculture (CA) – a sustainable system

➤ CA comprises the following principles:

- Minimal soil movement
- Surface crop residue retention
- Crop rotations and/or green manure cover crops





• *Jab-planter*



• *Dibble stick*



• *AT Direct seeder*



• *Hoe-planter*



• *Basin planting*



• *Magoye ripper*

FARMERS INVOLVED IN COMPOSTING PROCESS



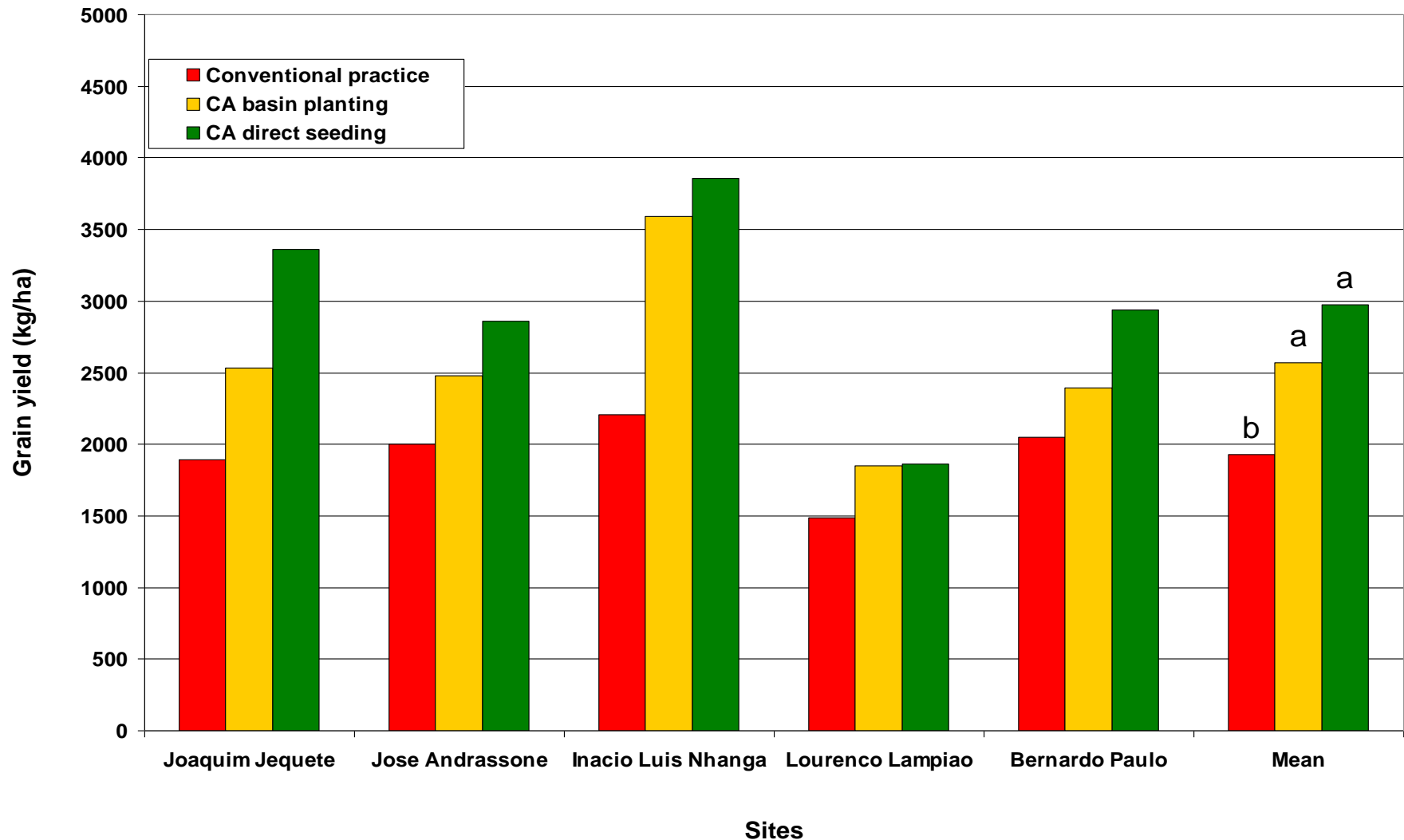


CIMMYT's partners in Mozambique

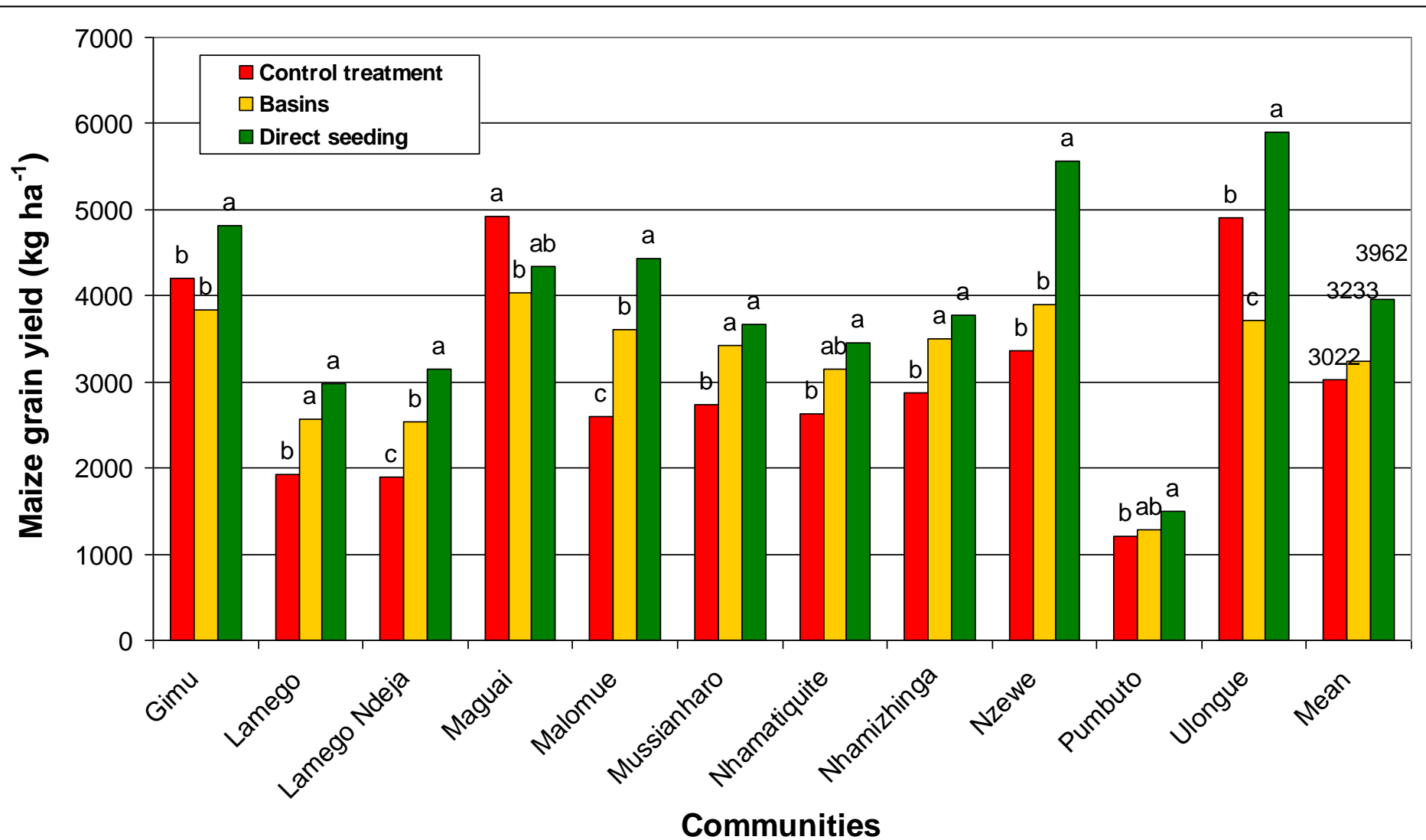
- The Mozambique National Agricultural Research and Extension Systems
- Seed producers and input suppliers
- IITA, IFDC
- International NGO's (i.e. Total Land Care)
- Donors: USAID



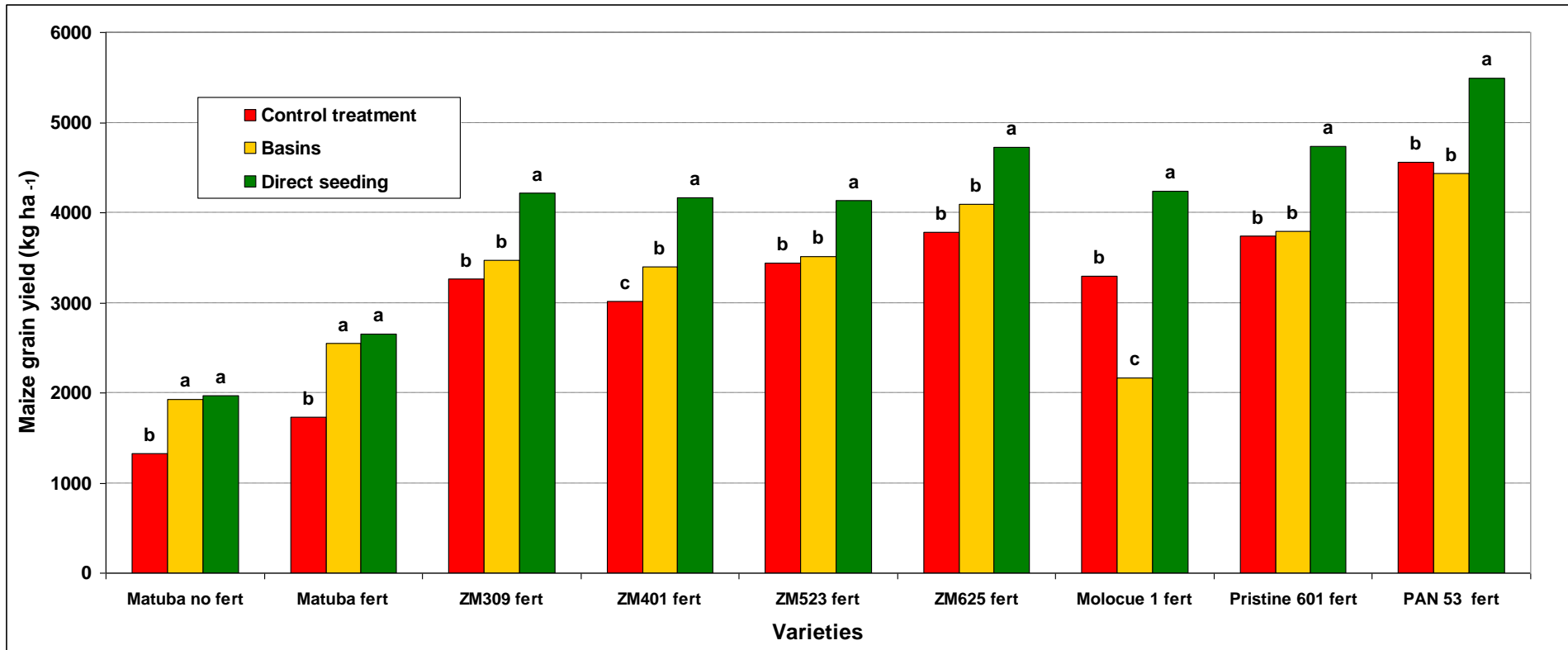
Maize response to CA on different farmer's fields, Lamego, 2012/2013



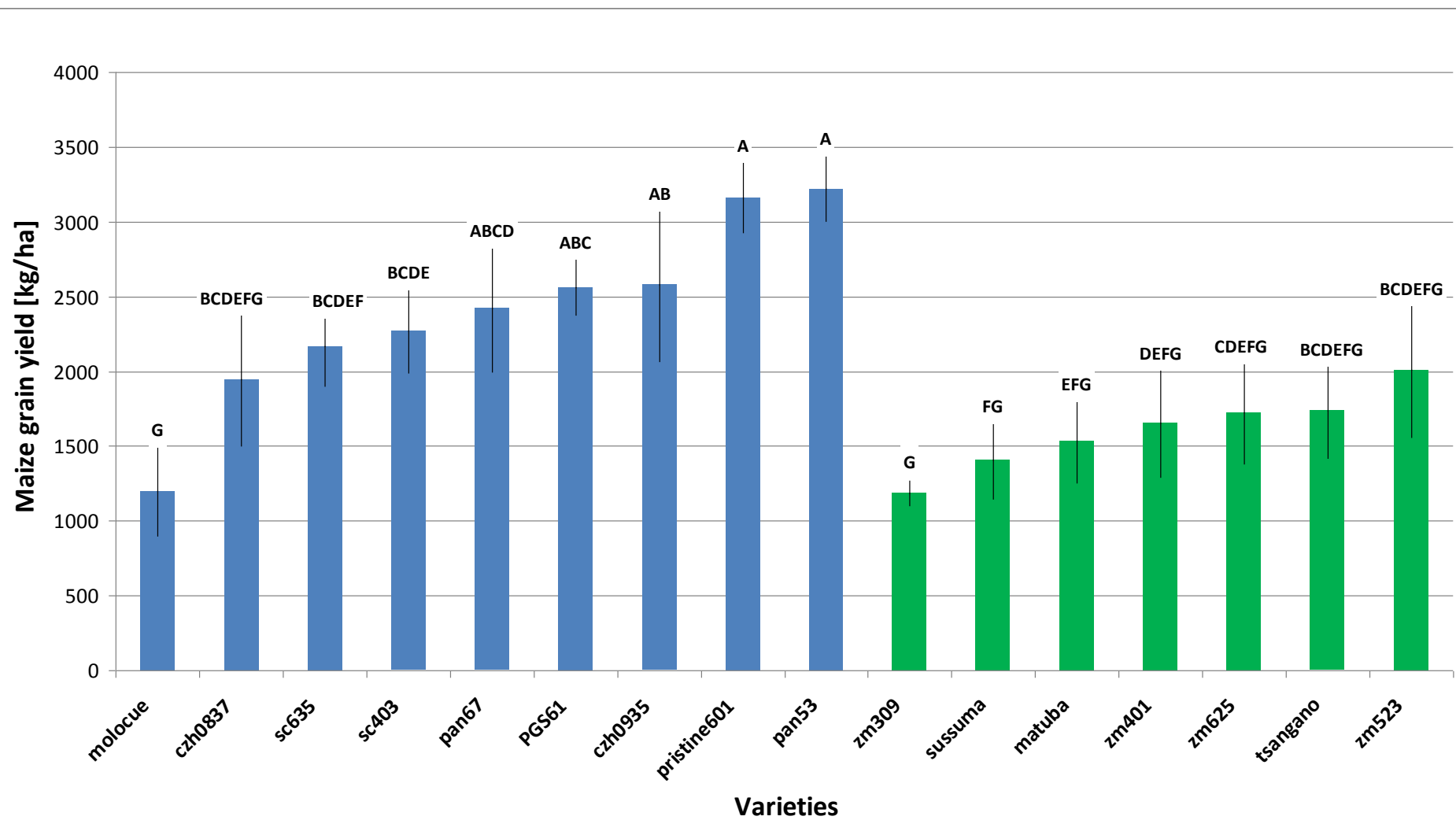
Mozambique - all communities 2012/2013



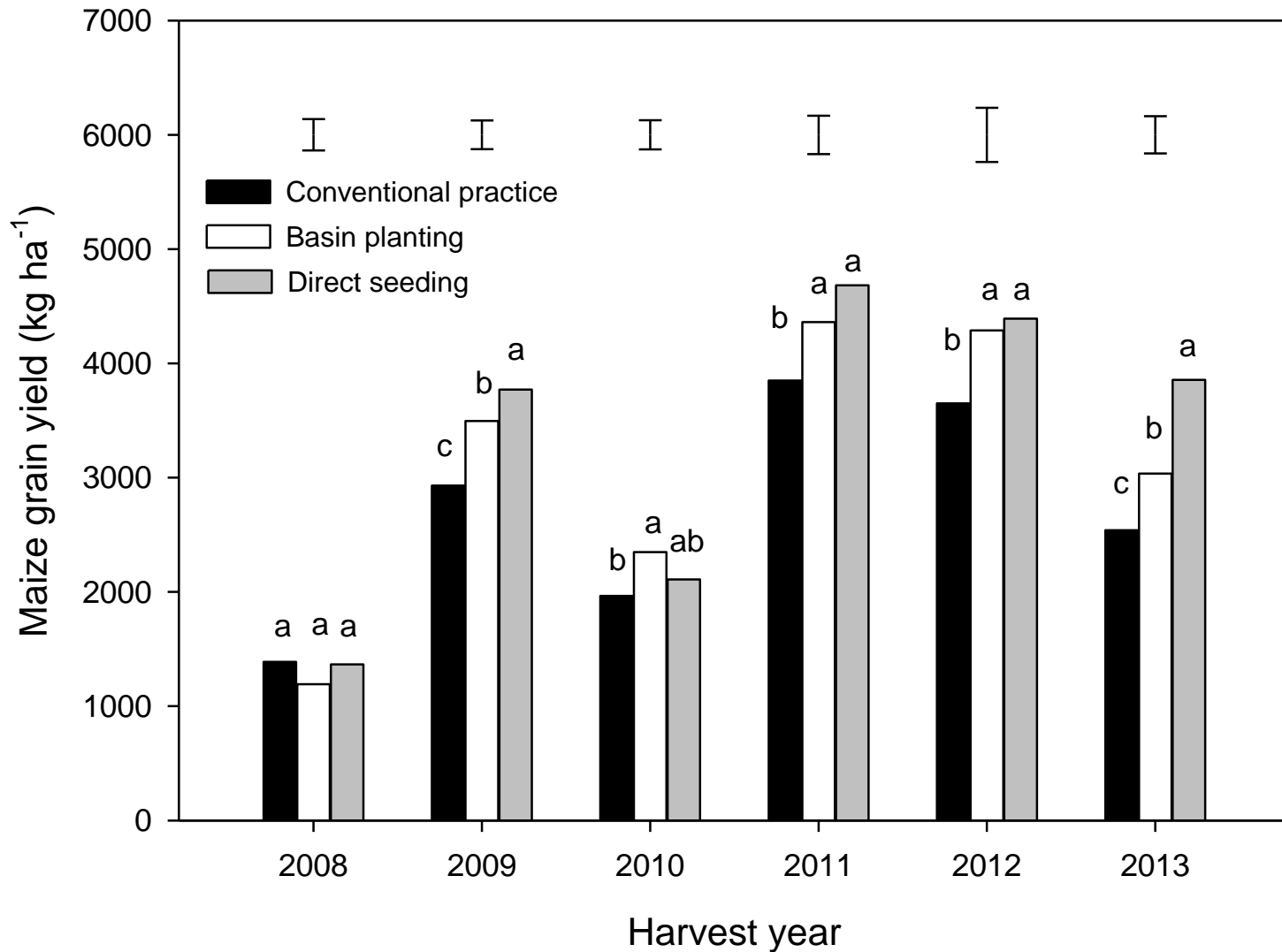
Varieties under different cropping systems, 2012/2013



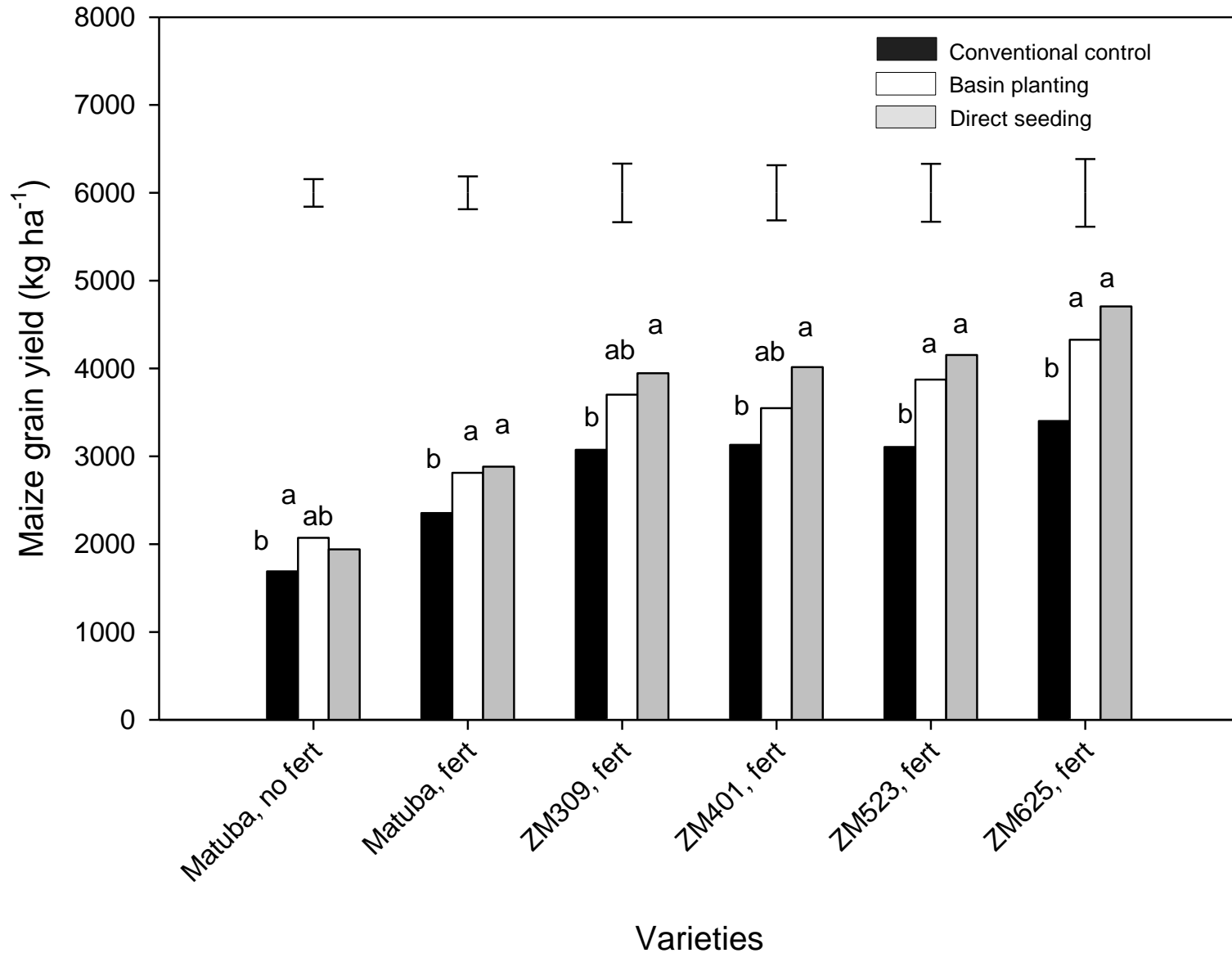
Performance of maize varieties under CA in Sussundenga, 2012/2013



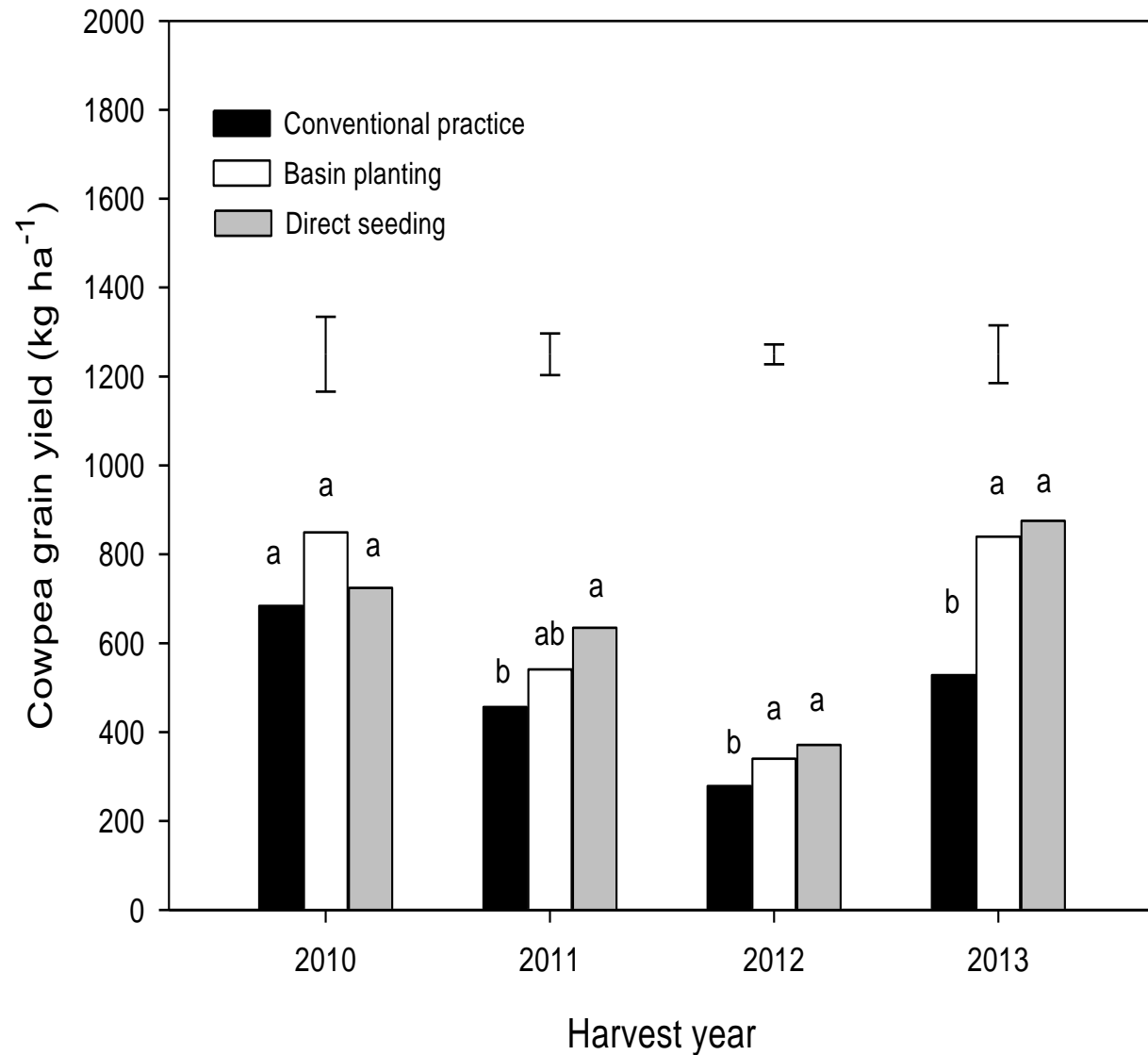
Average maize grain yield in five target communities, Mozambique, 2008-2013



Overall varietal performance in five target communities of Mozambique, 2008-2013



Average cowpea grain yield in five target communities, Mozambique, 2010-2013



Training events on cropping systems and improved varieties in eleven target communities

	No. of participants	No of males	No of females
Community awareness	450	267	183
Evaluation meetings	300	170	130
Farmer to farmer exchange	169	55	114
Field days	702	356	346
Study tours	12	10	2
Trainings	147	83	64
Planning meeting	22	20	2
Variety demonstration field days	1700	521	1179
Total	3502	1482	2020

Extend of adoption* in different target communities

District	Name of community	Men	Women	Total
Nhamatanda	Lamego John Segredo	62	22	84
Nhamatanda	Lamego Ndeja	44	23	67
Gondola	Pumbuto	25	20	45
Sussundenga	Nhamatiquite	257	171	428
Báruè	Mussianharo	27	37	64
Báruè	Nhamizhinga	78	31	109
Báruè	Malomue	21	9	30
Angonia	Nzewe, Ulongue	22	11	33
Tsangano	Gimo, Maguai	39	12	51
Total		575	336	911

*adoption under this project is defined as uptake without external input support from the project

Seed production in 2012/2013 cropping season by seed companies and IIAM

Variety	Type	Year of release	Amount of seed produced (tons)	Seed Partners
Molocue	Hybrid	2011	50	Lozane Seed
ZM309	OPV	2013	300	Dengo Commercial, Bonimar, Ndzarayapela
ZM523	OPV	2011	500	Dengo Commercial
OLIPA	Hybrid	2010	50	Lozane Seed; Moz Seeds
SP1	Hybrid	2013	20	Semente Perfeita
Pristine 601	Hybrid	2013	200	Moz Seeds,
Various other lines	Breeders' seed	2013	3	IIAM
Total			1123	

Conclusions

- **We have made good progress to achieve the project goals!**
- **The results show that CA and drought tolerant varieties are viable and profitable technology interventions**
- **Change is a slow process – but what are the alternatives?**
- **How can we get to more adoption? The need for an integrated approach involving more partners....!**



Plot under CA (Maize & Cow pea)



Maize & Cow pea plot with Mulching



Discussion with men & women



Differences between basins and jab planter plots



Discussion with women



Part of Nhamatanda CA Team



Thank you very much!



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