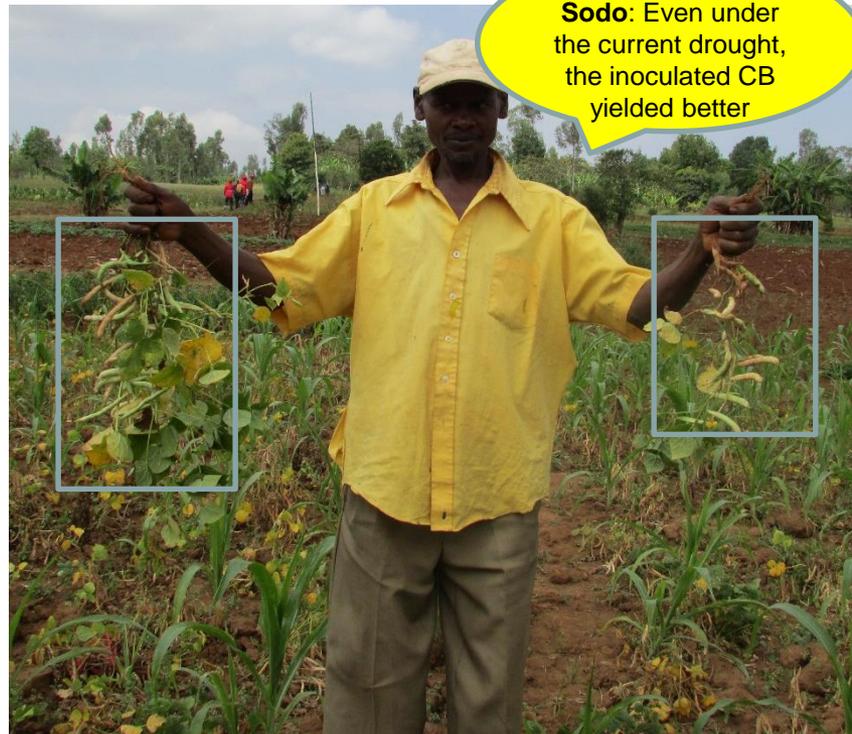


ILRI-N2Africa-Ethiopia



Overview of the Project: *Partnerships, achievements, way forward*



By Endalkachew Wolde-meskel and Team

ILRI-N2Africa Ethiopia: Annual Partners' Review and Planning Workshop
27-29 January 2016, ILRI Campus, Addis Ababa, Ethiopia

Putting nitrogen fixation to work for smallholder farmers in Africa

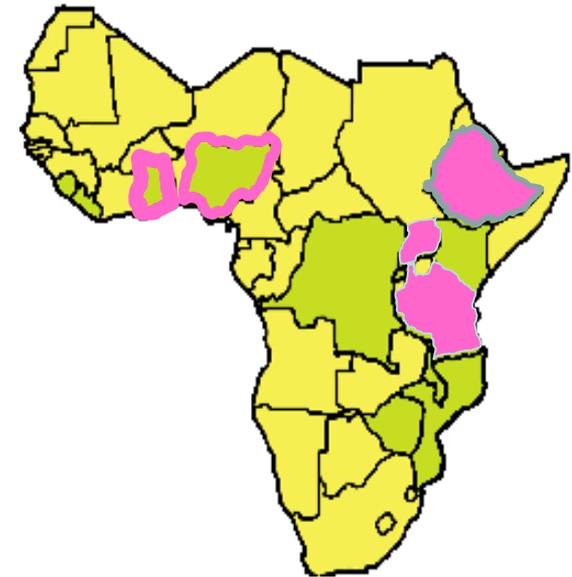
N₂Africa- a pan African project



Vision of Success:

- Build sustainable, long-term partnerships to enable smallholder farmers to benefit from symbiotic N₂-fixation by grain legumes through effective production technologies including ***inoculants*** and ***fertilizers***.

The legacy will be a strong national expertise in **grain legume production** and **N₂-fixation research** and development.



Putting N Fixation to work
smallholder farmers in Afr



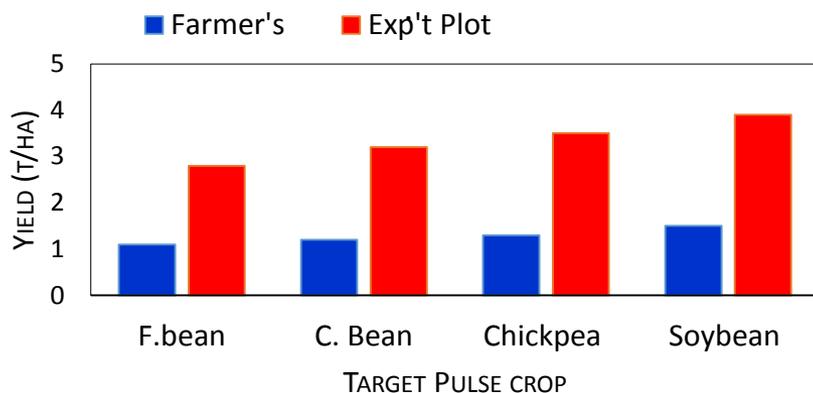


Putting nitrogen fixation to work

Yield Gap, Opportunities & available technology for dissemination



$$Y = (G_L \times G_R) \times E \times M$$



Yield of target legumes (t/ha) on farmer's plots & Exp't stations (CSO, 2011 - 2014)

Opportunity I



Ethiopia represents an important hotspot for Rhizobial biodiversity in East Africa

Opportunity II

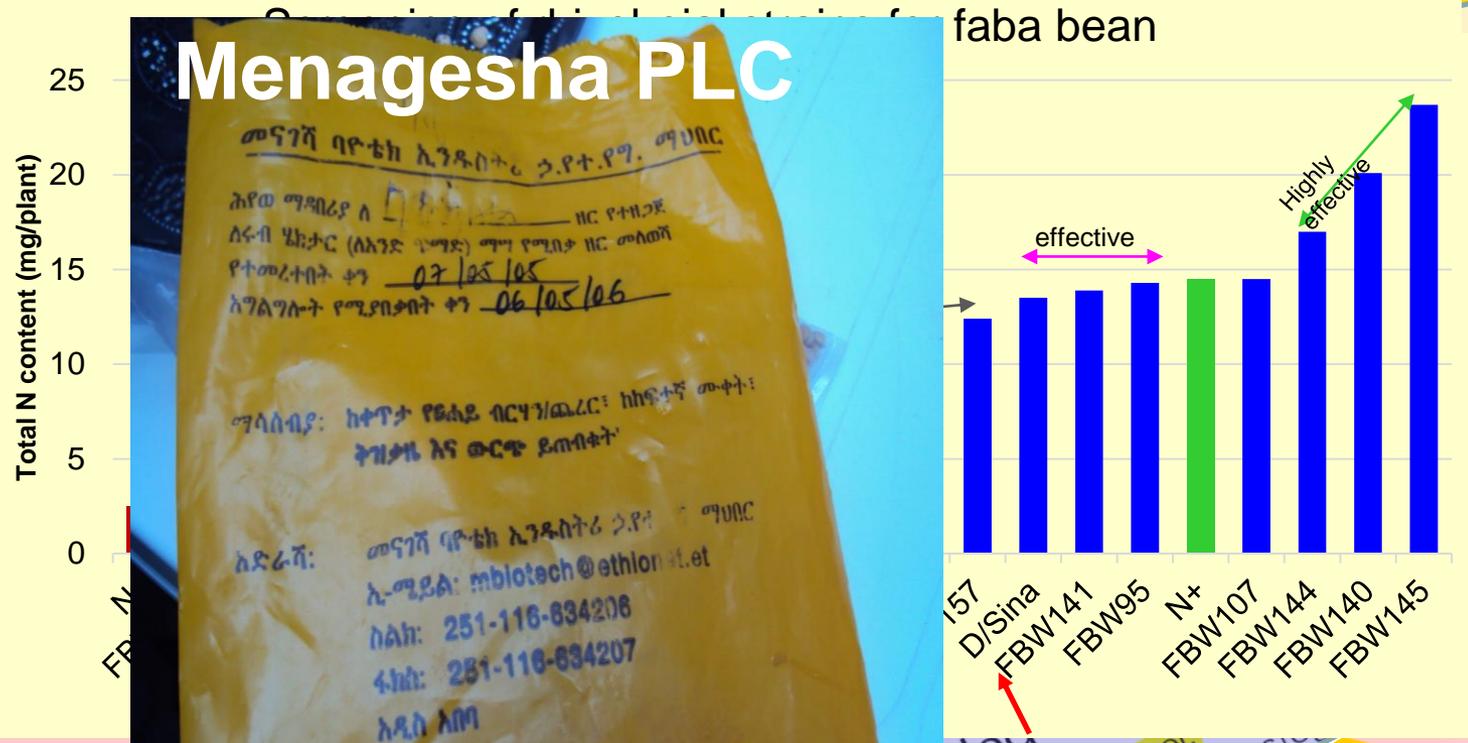


Ethiopia represents an important hotspot for Rhizobial biodiversity in East Africa

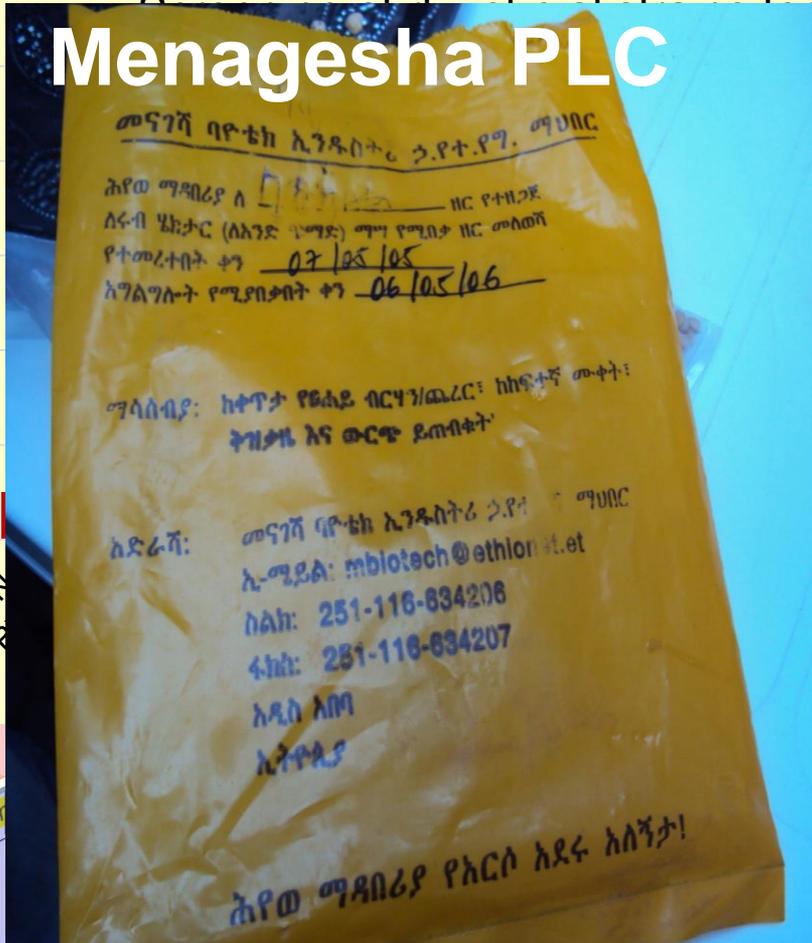
Opportunity II

Biology and Fertility of Soils
Cooperating Society of Soil Scientists
ISSN 0178-2641
Volume 48
Number 1

Biology and Fertility of Soils
A 20458



Menagesha PLC



For more information

Wolde-meskel, Froese & Ethiopia”

Soil Science
for authors and
side amendments
N mineralization,
dry biomass and
concentration
Wolde-meskel, Froese & Ethiopia”
Tulu Degefu,
Cleenwerck, 3
for smallholder farmers in Africa
& Lars R Bal

Pillars of the project

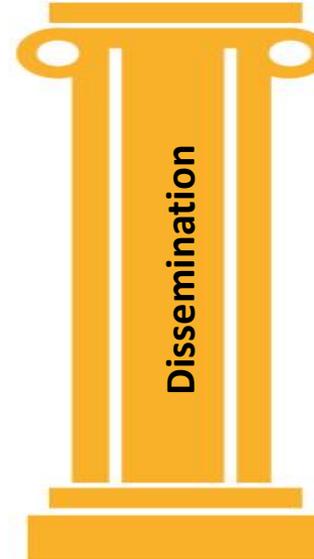
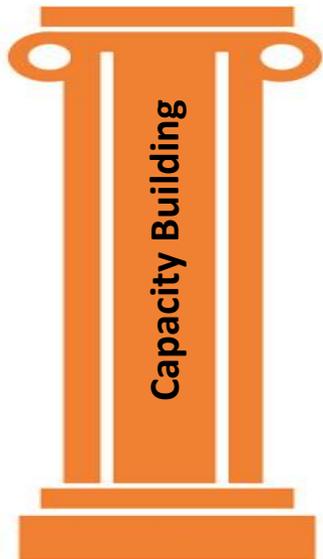


Stakeholders' **capacity** development on improved legume technologies, agribusiness, gender mainstreaming, legume value addition and nutrition

Input demand information and **delivery** (Seed, inoculant, fertilizer, agronomic and business support services)

Delivery of proven legume technologies, organizing technology promotion and dissemination campaigns

Strengthening collective marketing, linking with lead firms, Bulking and pulling marketable surplus and stimulate home consumption as an alternative

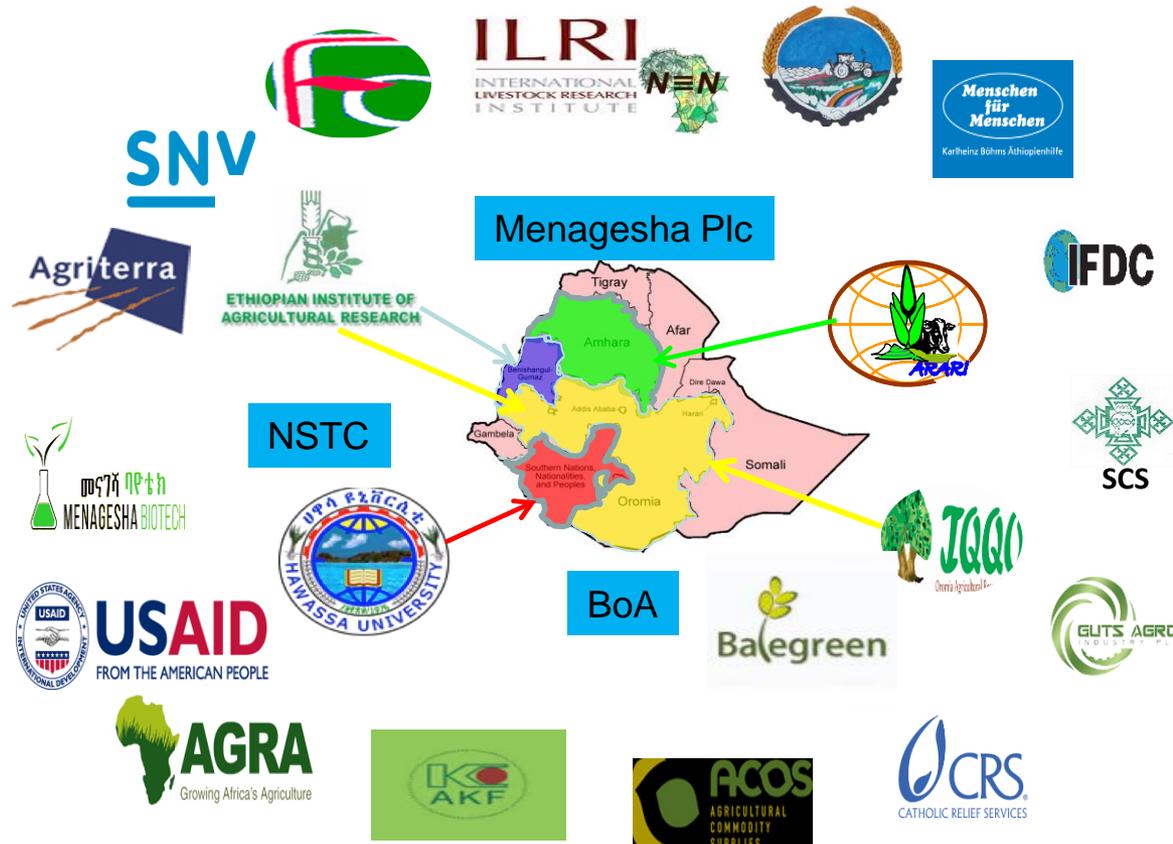


N2Africa- Ethiopia Partners



- GOs, NGOs, Projects, Private institutions
- Continuous process, scoping, identification of key partners,

- AGRA-STTP
- Guts Agroindustry
- ACOS Ethiopia
- Alema Koudjits
- MBI
- CAFS
- LVIA
- Menschen for Menschen
- Anno Agroindustry Plc
- Hunde Chewaqa FCU
- CRS Ethiopia
- Tsehay FCU
- Balegreen Spice & Grain Dev't Plc.
- Sidama Elto Union
- Uta Wayu Union
- SNV
- Agriterra
- Becho Woliso Union
- Awash Melka Union
- IFDC-2SCALE



Achievements (main)



...\PLANNING\2016\

- Partners organized into PPPs, validated and functionalized
- Technology dissemination (technologies are available for dissemination)
- Dissemination strategies**
 - Agronomy clusters: (Diagnosis, Demonstration, Dissemination)
 - FTDG 25 – 40 farmers
 - Field days
 - Training – ToT, Farmers
 - Extension materials
 - Technology evaluation (events)
 - Cross visits
 - Media events



...\PLANNING\2016\Table 2.doc

Train

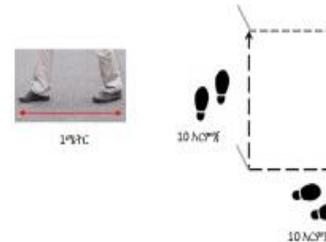
Putting nitrogen fixation to v

የአዘራር መመሪያ

- ማሳመራማ
 - በትንሹ ሁለት 10 ሜትር በ10 ሜትር ስፋት ያለው መደብ የሚሾል ማሳመራማ
 - ማሳመራማ ወጥ መሆኑን ያረጋግጡ (በማሳመራማ ውስጥ ትላልቅ ድንጋይ፣ ዛፍ፣ የምስክር ዕቃዎች)



- የማሳመራማ ዝግጅት
 - ማሳመራማ ከዚህ ቀደም እንደሚያዘገጁት በአጣጣሉ ያዘጋጁት፤
- መደብ አወጣጥ
 - በ10 ሜትር በ10 ሜትር የሆኑ ሁለት መደቦችን ይለኩ (1 ሜትር ከ1 ስርዓት)
 - በአራቱም ማዕከሎች ስፋት በጥንቃቄ ቦታውን በደንብ ለመለየት ይረዳል፤



- ዎግ
 - ዎግ በማሳመራማ ላይ የጭመር ወይም የሚጨምሩ ከሆኑ በሁለቱም መደቦች ላይ

Xaa'oo uumamaa
Kan gatii salphaan
Oomishamu`

Reshid Abafita

Gosa Xaa'oo uumamaa

Raayzoobiyemi	Asetoobaakterii
Azotoobaakterii	Fraaturiyaa awuranshiyaa
Azospinilumii	Suudomonasii
PSB	Kaalchara Makamaa
Maaykonizaa	Maykiro-orgaanizimoota Bu'a qabeeyyii



Table 1. N2Africa Partnership Clusters, implementing partners, regions, target legumes and Woredas in Ethiopia

* Signed 14 partnership agreements and functionalized – vary in the levels of performances

Partnership Cluster	Cluster Partners	Region	N2Africa Sub-contracted Partner	Implementing Centers	Target Legumes	Target Woredas	Farmers' Cooperative Union
Central	ILRI-N2Africa, EIAR, SNV, ACOS, MBI (5)	Oromiya	EIAR	EIAR-DZARC	Chickpea	Ada'a, Gimbichu and Becho	Erer, Becho-Woliso (2)
Chewaka	ILRI-N2Africa, OARI, IFDC, MfM, Guts Agro, MBI (6)	Oromiya	OARI	OARI-BARC	Common bean, Soybean	Wayu-Tuka, Bako-Tibe, Gobu-Sayo, Chawaka, Illu-Gelan, Dano	Hunde Chewaka (1) +
Jimma	ILRI-N2Africa, EIAR, OARI, FC, MBI (5)	Oromiya	EIAR, OARI, FC*	EIAR-JARC, Fc OARI-JAMRC	Soybean	Kersa, Tiro afeta	FC-FMOs, Jimma (2)
North	ILRI-N2Africa, ARARI, SNV, Agirtera, Tsehay Unon, MBI (6)	Amhara	ARARI	ARARI-ADARC	Faba bean, Chickpea	Yilmana-Densa, Farta, Enemay	Ghion (1)
				ARARI-GARC	Faba bean, Chickpea	Dabat, Debark, Gonder-Zuria,	Tsehay (1)
Pawe	ILRI-N2Africa, EIAR-Pawe, AKF, MBI (5)	B-Gumuz	EIAR	EIAR-PARC	Common bean, Soybean	Mandura, Pawe, Dibate, Jawi	Mama, Anzina (2)
South	ILRI-N2Africa, HwU, EIAR-MARC, CRS, ECC, MBI, ACOS (7)	SNNPR	HwU, ECC*	HwU	Common bean, Chickpea	Boricha, Halaba, Damot-Gale, Soddo-Zuria	Sidama Elto, Wolayita Damota (2)
				ECC-SDCO/Soddo	Common bean, Chickpea	Damote-Gale, Sodo-Zuria	Wolayita Damota (2)
		Oromiya	EIAR	EIAR-MARC	Common bean,	Shalla	Uta Wayu (1)
South East	ILRI-N2Africa, OARI, Balegreen, ACOS, MBI (5)	Oromiya	OARI, Balegreen*	OARI-SARC	Faba bean, Chickpea	Sinana, Goba, Agarfa, Ginir	Siko Mando, Agarfa (2)
				Balegreen	Chickpea	Ginir	-
	19+	4	7	13	4	30	16



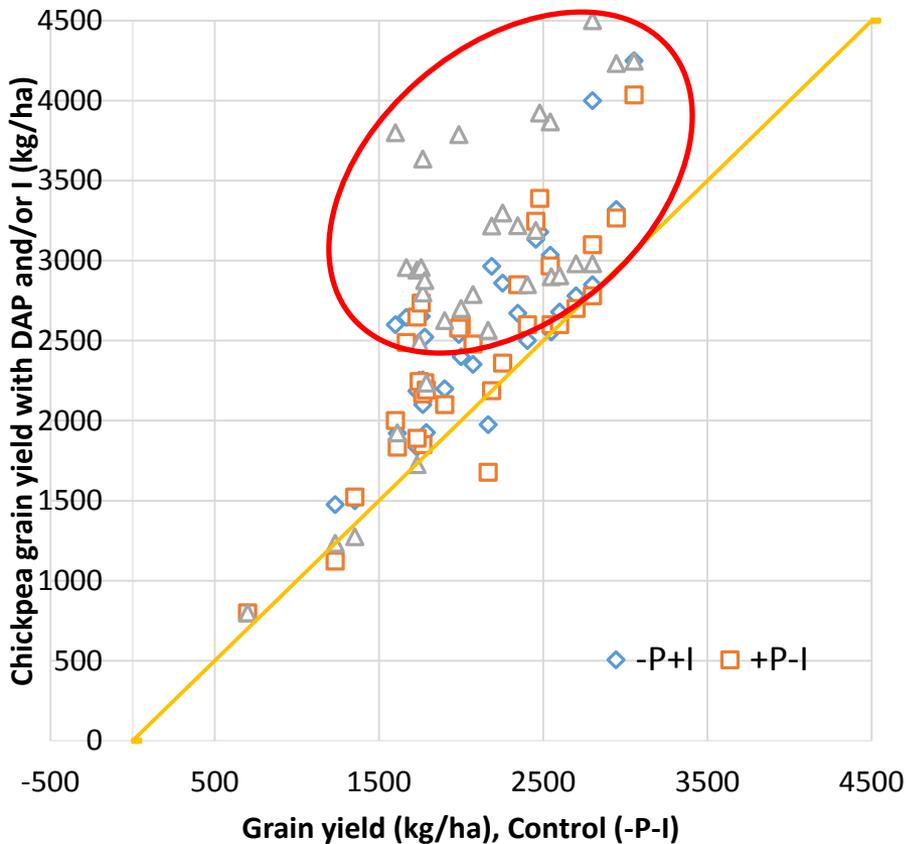
Table 2. N2Africa-Ethiopia Progress of technology Dissemination, 2015 Cropping Season

Partner Name	Number of FTD G (Demos)	N2Africa Standard Dissemination Activities		Trainings		Other Dissemination Mechanisms					Food Recipes (# of recipes)	Total # of beneficiaries reached	
				TOTs	Follow up Training	Field day		Media events (# of events)	Extension Materials (# of copies)	Technology evaluation (# events)			Cross visits (# participants)
		Demos	Adaptation			(# of events)	# of participants						
ARARI	40	1375	627	0	554	5	1412	5	646	9	-	-	3968
EIAR	61	867	588	26	649	12	2023	5	535	57	-	8	4153
HwU	31	880	880	0	805	2	671	2	0	62	-	-	3236
OARI	44	1220	940	209	2661	12	1269	1	1650	13	-	39	6299
BALE GREEN	0	0	80	0	0	-	0	-	-	-	-	-	80
FC	0	0	290	0	0	-	0	-	-	-	156	-	446
SCS	0	0	225	25	250	-	0	-	-	4	310	-	810
TOTAL	176	4,342	3,630	260 (86)	4,919 (1151)	31	5,375	13	2,831	145	466	39	18,992 (2660)

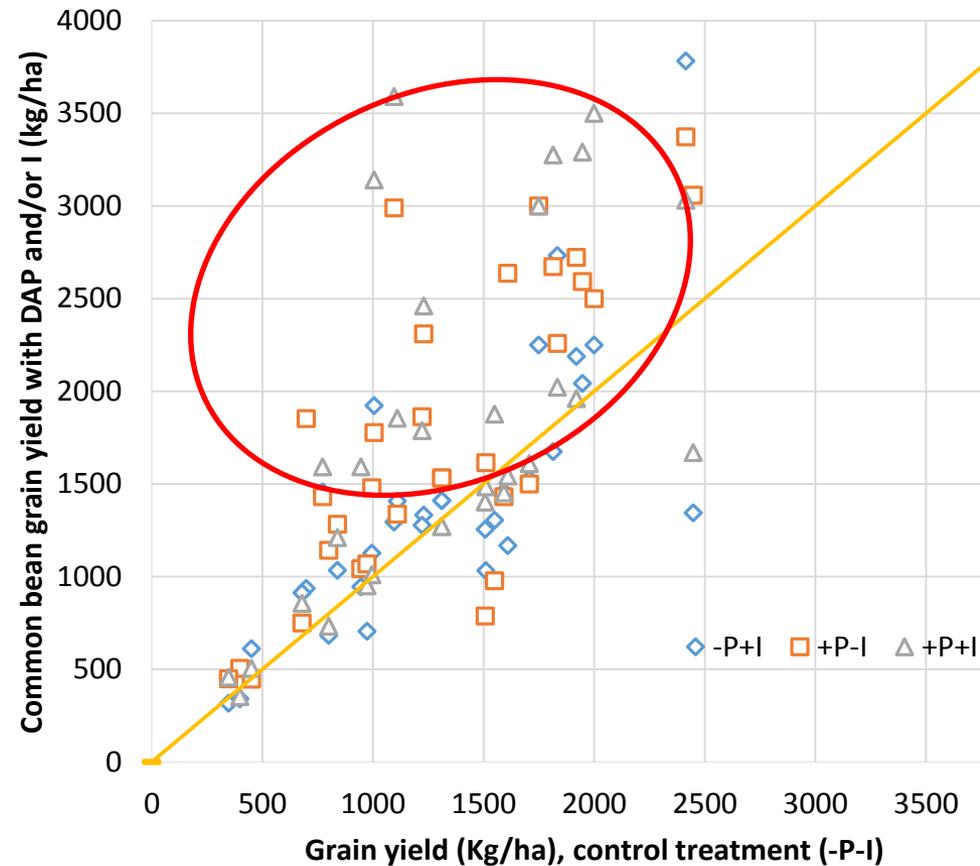
Agronomic Results (diagnostic/dissemination)



Chickpea grain yields in the central (Adea) and southern (Damot Gale) Ethiopia (combined data), 2014



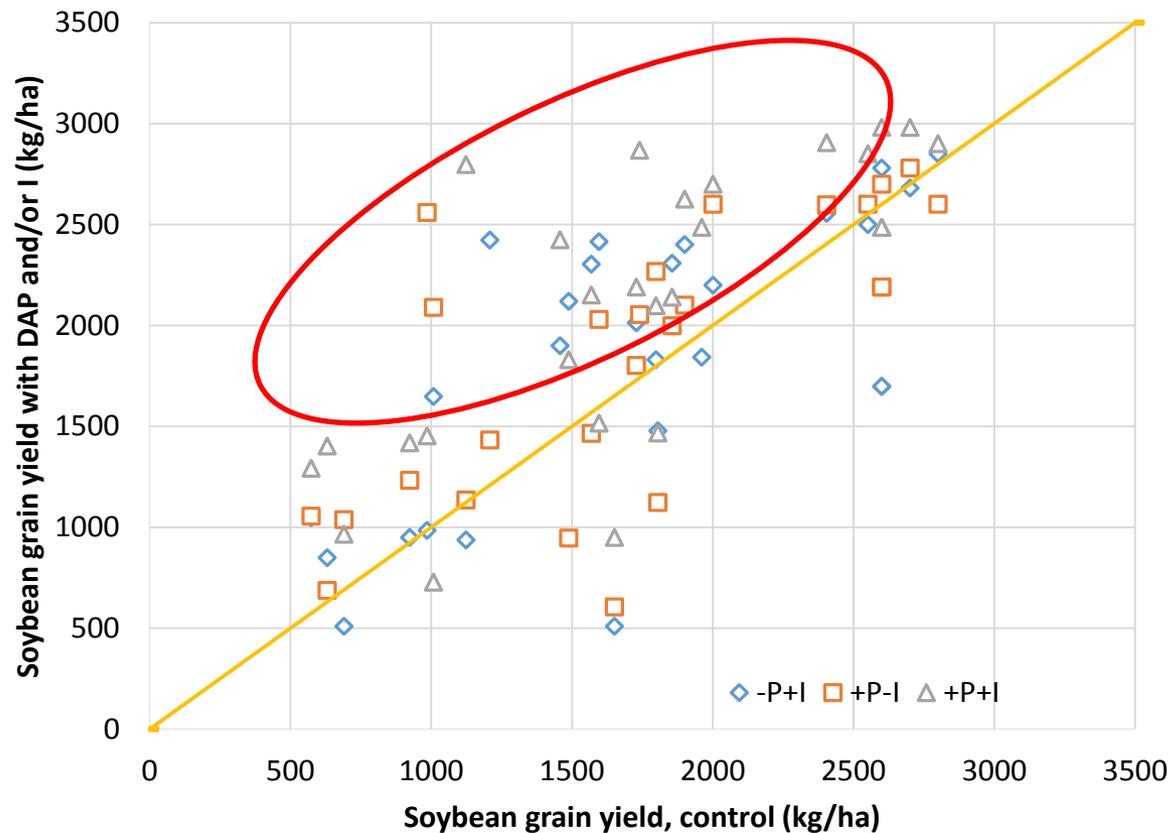
Common bean grain yields in the northwestern (Mandura), western (Bako Tibe) & southern (Boricha) Ethiopia (combined data)



.....Agronomic results continued



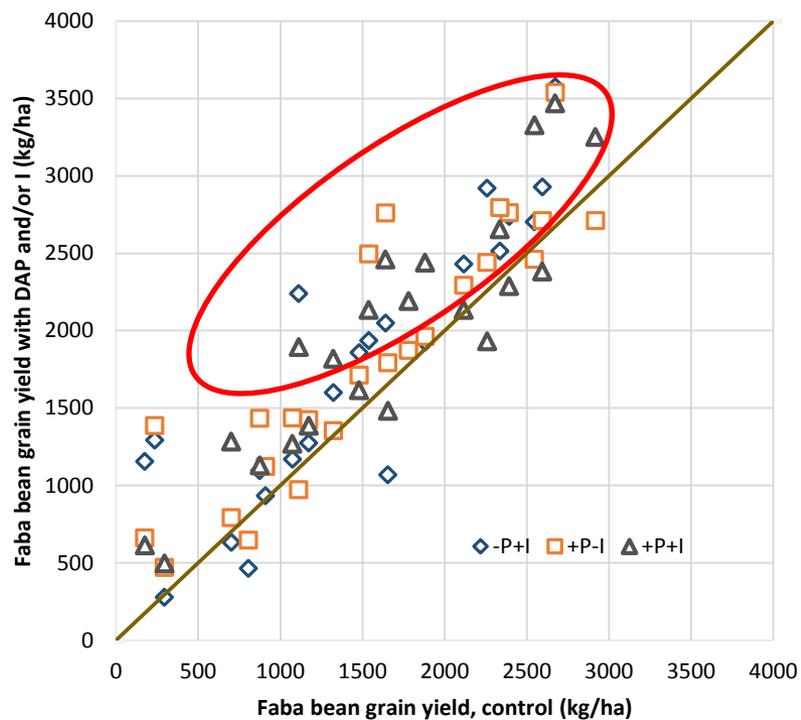
Soybean grain yields in the western (Bako Tibe & Sibule Sire woreda) and northwestern (Pawe woreda) Ethiopia (combined data)



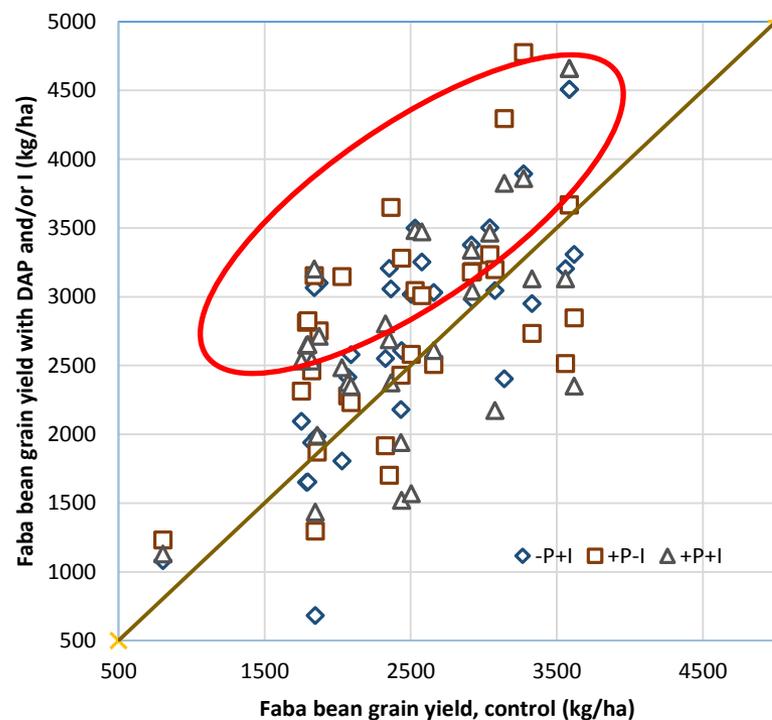
.....Agronomic results continued



- Faba bean Diagnostic at Farta & YilmanaDensa



- Faba bean Diagnostic at Agarfa, Goba & Sinana



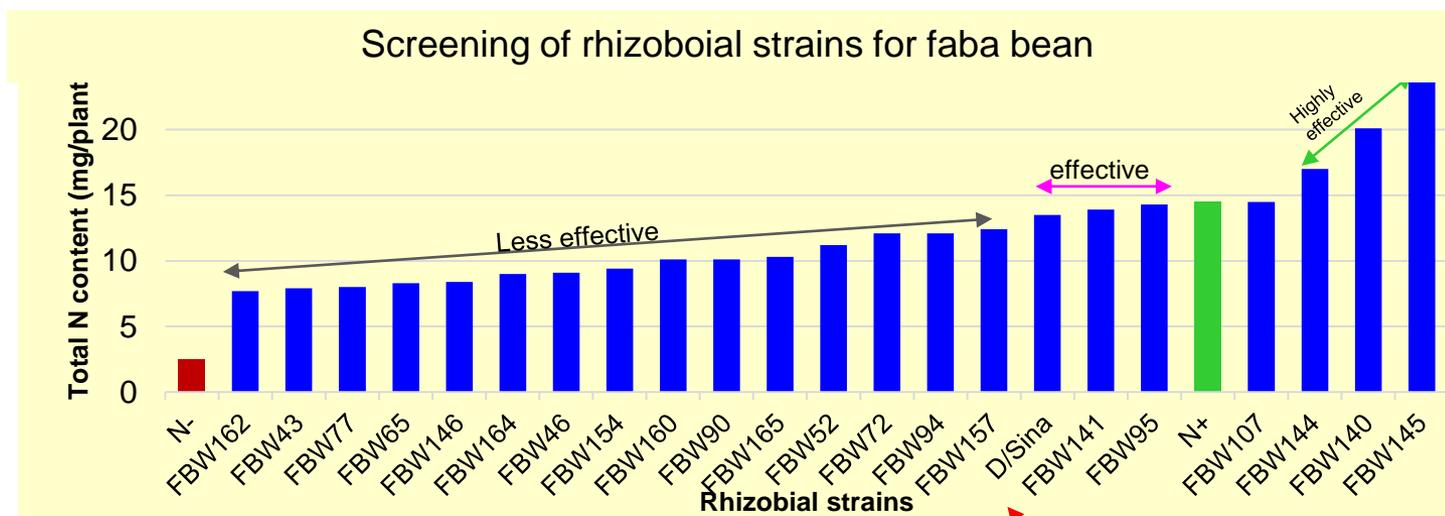
Progresses with Rhizobiology



- N2Africa collaborates/subcontract HwU and EIAR-HARC

Isolates (to date)	Achieved 2014	Achieved 2015	Achieved so far (2014&2015)
	121	70	191

Fourteen effective strains identified (6 chickpea, 2 common bean and 6 faba bean)



- **Capacity building** (long term training):
a PhD, and 5 MSc (1 completed + 4 in progress) ++

The Way Forward



- Scaling up – more adaptations



.....Way Forward



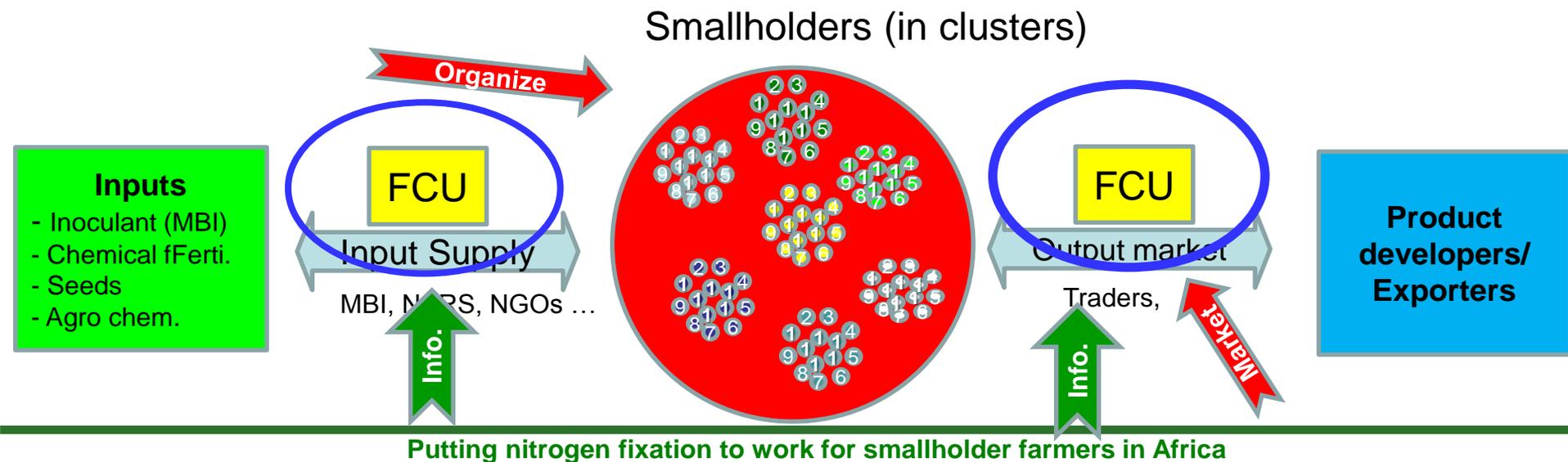
Tasks:

Interconnecting Partners, Coordination, Facilitation, Grant Provision, Backstopping, M&E, Training & Capacity building, Research and evidence generation, Provision of breeder seeds, Dissemination, Seed multiplication, Input supply, Market

Partners:

ILRI-N2Africa, NARS, BoA, **FCU** – Tsehay, Mama- , **NGOs** – MfM, FC, SCS- **Private**

Companies – MBI, Balegreen, Gutes, AKF



.....The Way Forward



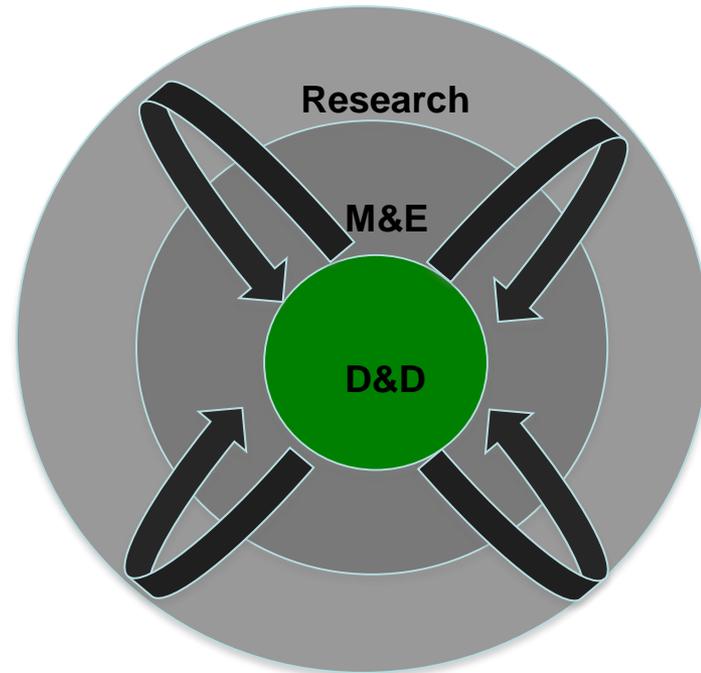
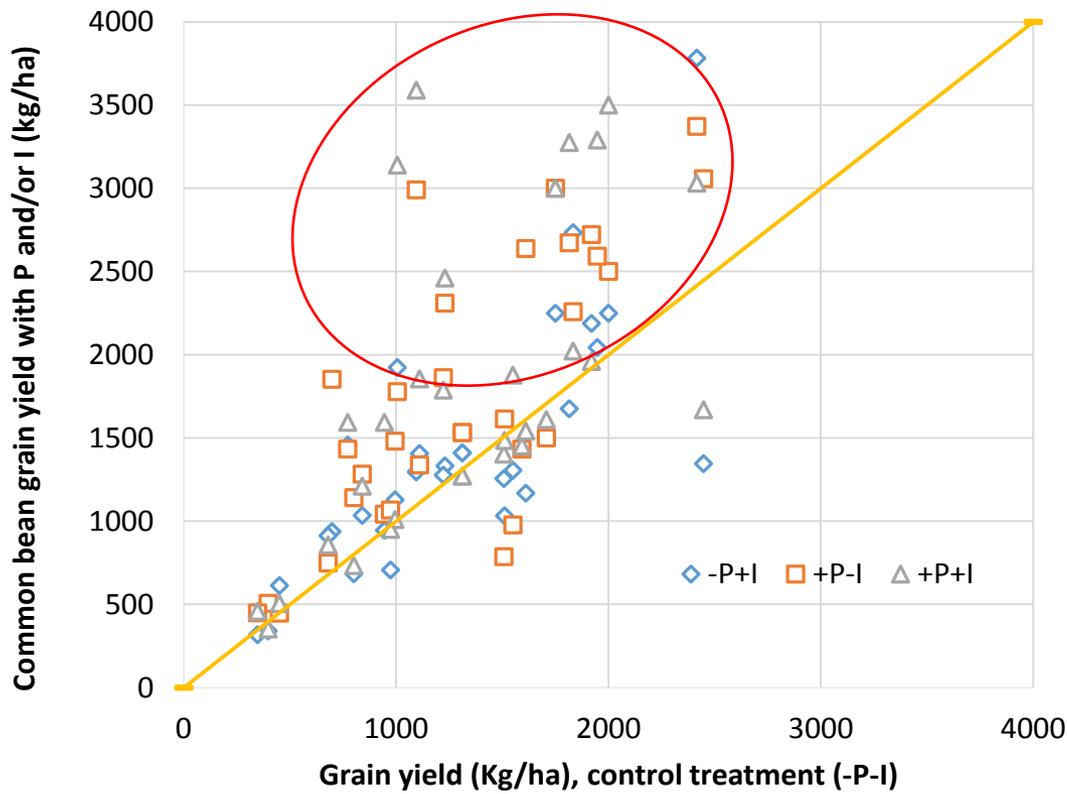
- But also continue with some demonstration – where farmers confidence is not yet established



.....The Way Forward



- NARS engage
 - Research on non responsiveness, variety trials
 - Knowledge sharing and backstopping





.....The Way Forward

- Contributions to intensification of crop - livestock system
 - Ongoing studies – Msc + on nutritive value of legume residues
 - Interests on fattening projects (FCU – AKF connections)
 - FEAST (Feed Availability & Sustainability)



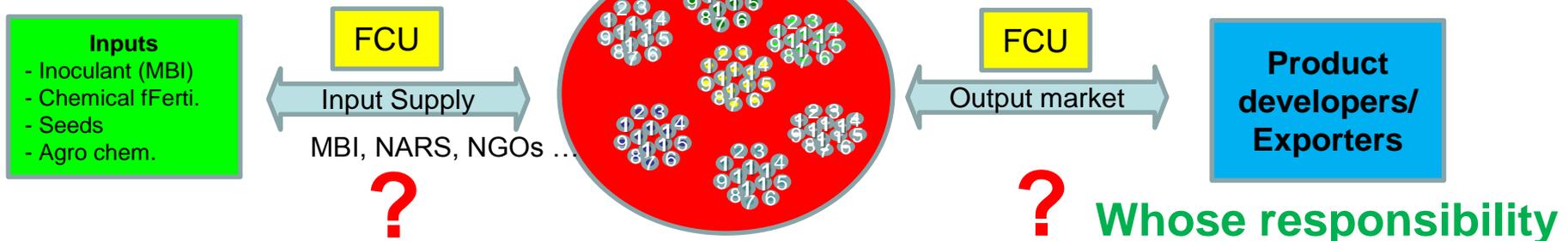
Challenges



- Staff at partners institutions overstretched with too much commitments
- Delayed reports (Physical/ Financial), with all its consequences
- Unavailability of Information (demand for inputs; marketable output)



Smallholders (in clusters)



Expected outputs



- Partnership achievements and progresses presented and reviewed
- Experiences and lessons learnt shared
- Potential challenges and opportunities identified
- Clear future directions grasped and existing partnership strengthened
- Work plan - 2016 developed and agreed among cluster partners (what are the role/contributions of each cluster member ?)

Acknowledgments



Putting nitrogen fixation to work for smallholder farmers in Africa

N2Africa Partners



1. North



2. South



3. Chewaka



4. Central



5. Jimma



6. S. East



7. Pawe





Thank You