



Debrezeit Agricultural Research Center Mid-season Evaluation Interim Report

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Outline of presentation



- Introduction
- Activities implemented
- Trainings given
- Evaluations or field days
- Volume of inputs
- Stakeholders engagements
- Data collection status
- Achievements
- Main Challenges
- Way forwards

Outline of presentation



Introduction

- **N2Africa**'s *main* priority intervention area is ***Rhizobium inoculant*** as Integrated Soil Fertility Management (ISFM)
- **DZARC** is one of the partner in EIAR
- Last year we had a '**bridging trials**' at with this project
- The project continued its second year trial programs taking a lesson from bridging trials done across the country

Introduction



- **N2Africa** field trial programs for 2014 established in **Gimbichu**, districts and at **DZARC**
- This year activities were well developed with the participation of each partners
- Research team within the center and extension experts and agronomist from wereda agriculture offices (WAO) got briefing about the project and this years plan
- Selection of appropriate villages, Farmers sites were made prior to the trial launch
- The WAO selected appropriate DAs, and Farmers (for adaptation) participating in implementing the trials



2014 Cropping Season New plan



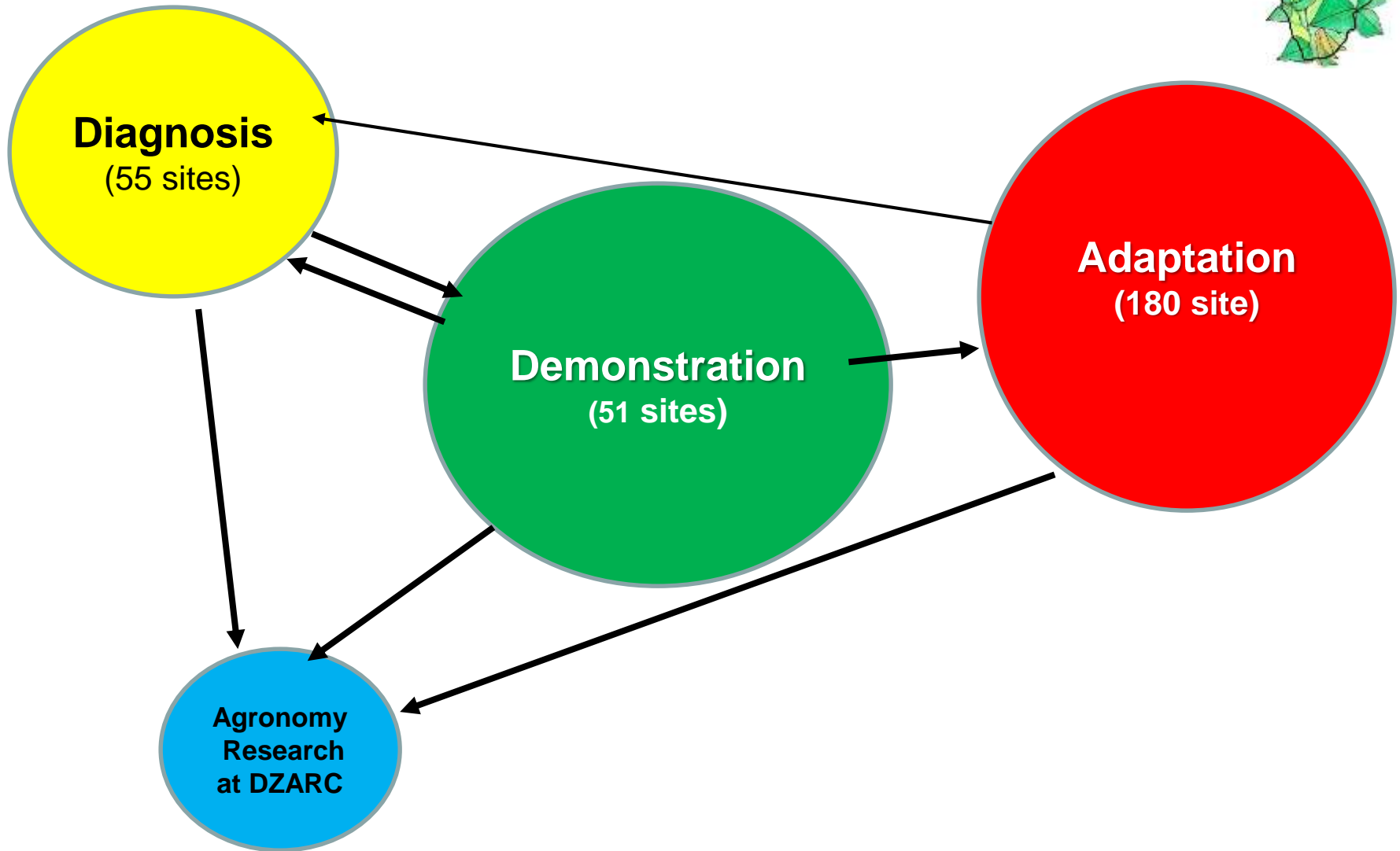
Activities implemented



N2Africa trials consists of four activities:-

1. The **Diagnosis** experiment activity
2. The **Researcher-managed agronomy** activity
3. The **Demonstration** activity
4. The **Adaptation** activity

Activities implemented



Activities implemented



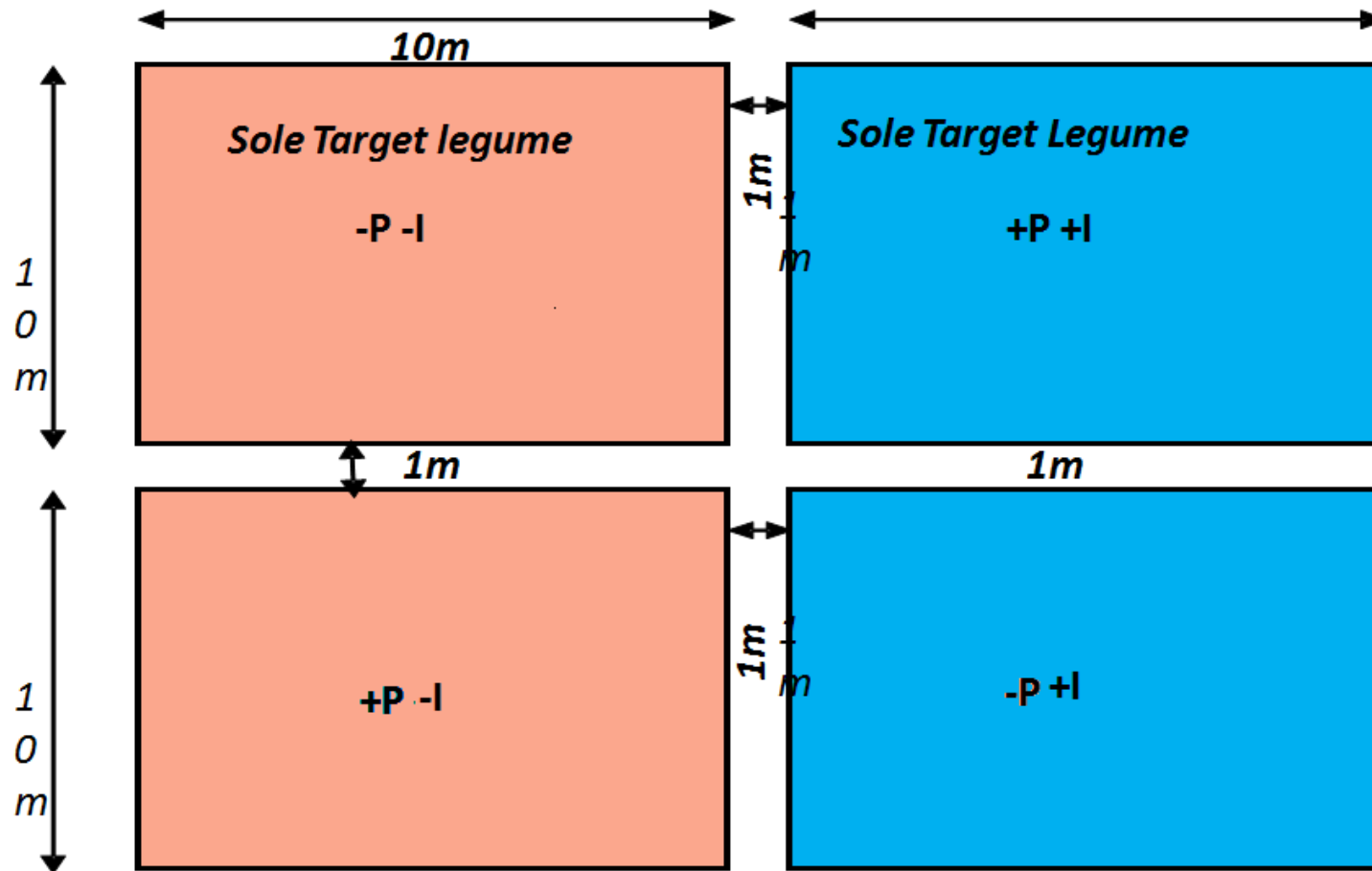
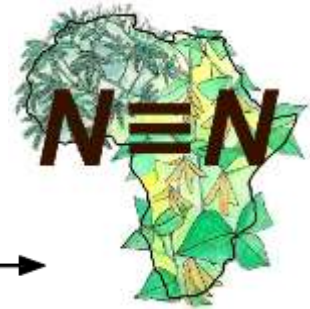
Experiments 1. Diagnostic trial – Research staff and DAs

Locations:

- Ada**
- Hidi (Rob Gebeya)
 - Akako
 - Udee
 - Denkaka
 - Katila

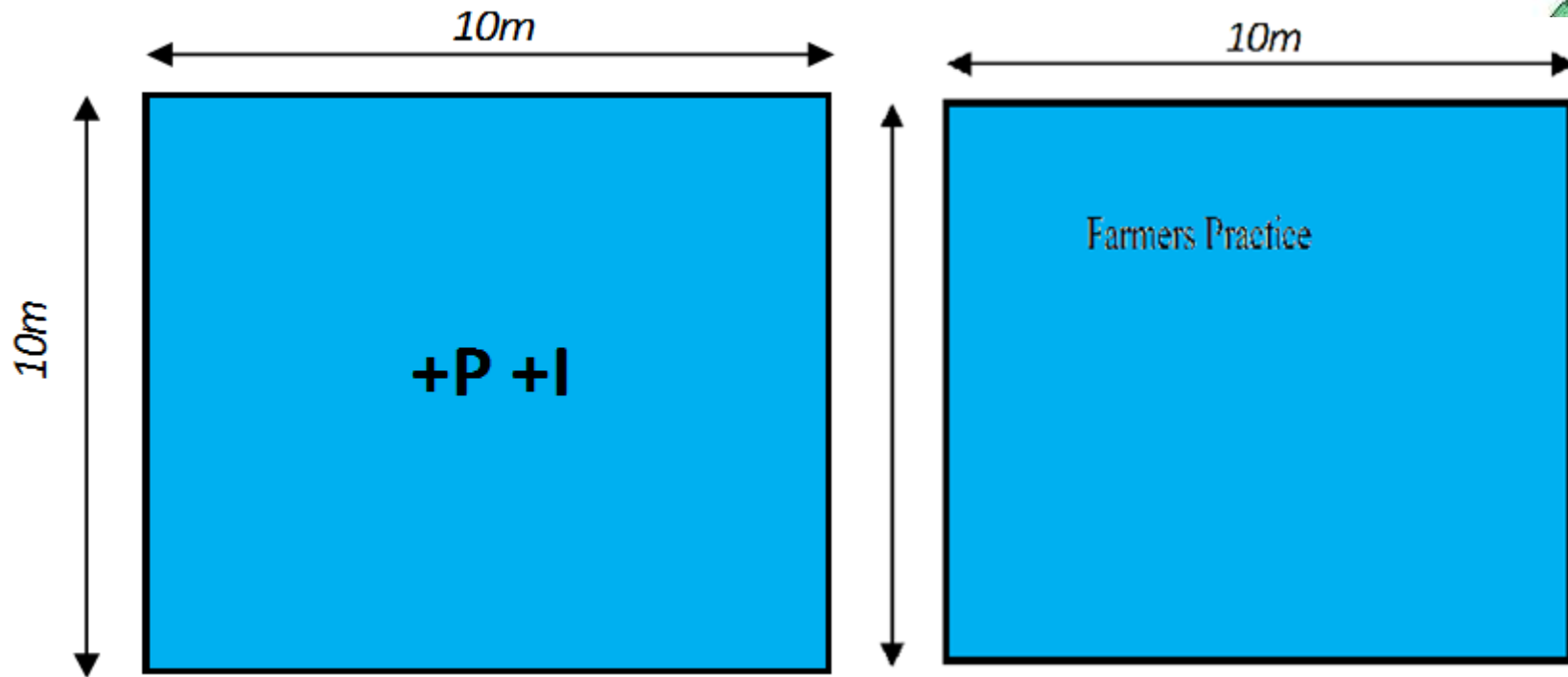
- Gimbichu**
- Adadi Golee
 -

Protocol and field layout for chickpea diagnostic trial



21m X 21m = 4 Plots

Experiments 2. Demonstration trial – Research staff and DAs



Protocol and field lay out for demonstration trial

2 plots with 10m X 10m size;

One with p and inoculant and the other without any inputs



Experiments 3. Adaptation trial -- by trained farmers

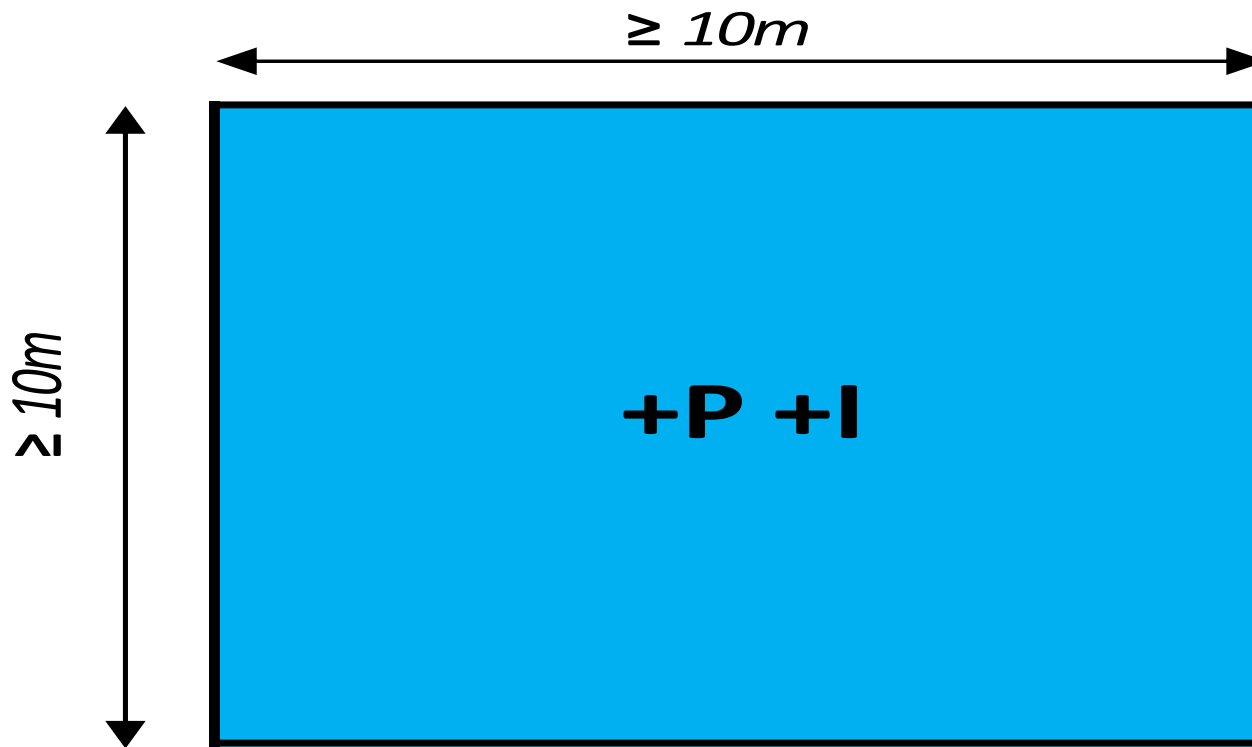


Figure 1: Sketch of adaptation trial plot

P = DAP; I = *Rhizobium* Inoculant

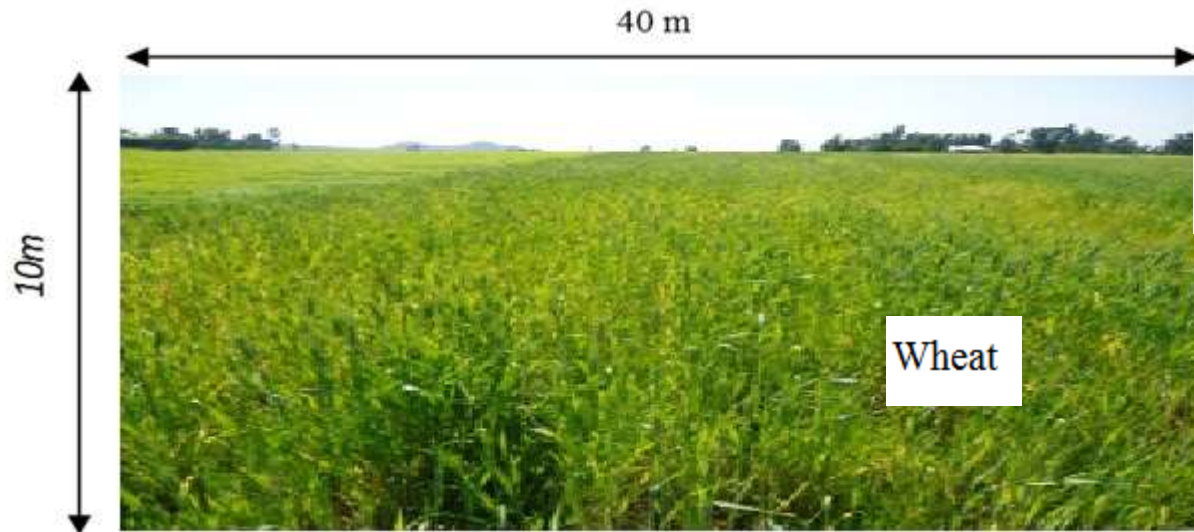
Activities implemented



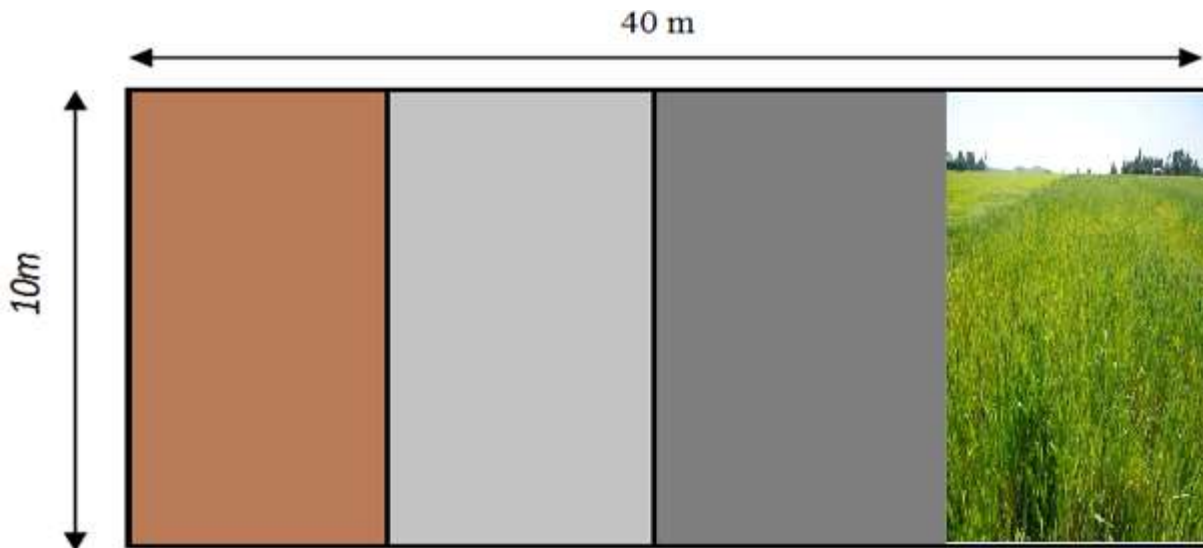
Protocol for Adaptation Plots

No	Crop	Variety	DAP	Inoculant
.				
1	Chickpea	V1	-	-
2	Chickpea	V1	+	+

Experiments 4. Long term agronomic study – By the research staff



Year I – Sole wheat crop



Year II – Diff. crops

Activities implemented



Specific actions under taken

- Site selection (farmers sites)
- Chickpea Varieties choice (Arerti and Teketay)
- Research supplies (seed, fertilizer and *Rhizobium* inoculants preparation . . .)
- Engagement of farmers for establishing on-farm trials
- Training (Experts, DAs, Research staff, and Farmers)
- Field preparation
- Collecting of associated observations (soil, weather etc.)
- Planting, managing,
- Data collection
- Harvesting the trials
- Data compilation and reporting

Trainings given



Organized training programs

Training for

- Research Staff (Dem., Diag., Adoption, Agronomy)
- Extension Experts (Supervision)
- DAs (Dem. and Diag.)
- Farmers (Adoption study)





Trainings on digital data collection

Google digital data collection method using

Open data kit (odk) version 7.

We received six tablets (5 for each DA at 5 kebeles)

- The training was both theoretical and hands on for 5 days.
- The training was conducted by **Mr. Eskinder Beza** from Wageningen University The Netherlands in collaboration with the N2Africa Ethiopia office.



Field lay out and planting of diagnostic, and demo trials in **Ude Kebele**



Recorded using Digital tablets



Chickpea plant stand count (15 days AP) and weed infestation and weed types recorded using the digital table from the diagnostic, and demo trials in **Ude Kebele**

Putting nitrogen fixation to wo



Trainings on digital data collection

- Digital data collection using tablets and SMS created big hope to collect good quality data for N2Africa project activities
- Nearly 50 Farmers trained how to send information and data from their Adaptation and Demo trials.
- Until today practically 95 % of the farmers participating in the N2Africa trials responded to the special stenciled questionnaires, produced for the actions to be carried on during activity implementation
- The templates were prepared both in Amharic and Oromifa languages.
- The relevant data/information deposited in N2Africa /Wageningen UR center data bases

Evaluations or field days



Evaluation and field days

- Field monitoring and evaluation of the N2Africa project activities were conducted by two research teams from EIAR and DZARC in different separate time
- We obtained very relevant comments and suggestions from the team members
- However, it is early to organize field days with farmers as well as policy makers

Volume of inputs



- Research/field supplies:
 - Improved Seed, → Nearly 600 kg
 - Pesticides → 20 pks
 - Fertilizers (DAP) → 400 kg
 - Plastic Bags → 12 kg different sizes
 - Wooden pegs → 17 packs
 - Paper bags → 1300 pcs
 - Sacks (50kg) → 600 pcs
- Casual labor
- Training cost/ Refreshments
- Per diems/Allowance
- Office supplies
- Transport cost for Farmers participating in Adaptation trials and DAs generation to smallholdersad to

Stakeholders engagements



- **N2Africa –Ethiopia** project coordination office
- **N2Africa –EIAR** focal person (LWRR Directorate)- financing
- **DZARC & LWRR** process research team (financing, facilitation)
- **Soil Fertility Research/TAs team** – data collection, data refining, data compilation and analysis, and overall supervision; and organizing all level trainings and report writing;
- **Extension Agronomist** (WAO) – Overall supervision
- **DAs** – data collection, field observation and data supply
- **Farmers** – field care, weeding, direct reporting (SMS, direct reporting)
- **Wageningen URC** – Digital data follow-up, data management data refining and reporting

Data collection status



- Data like field history, HH information /baseline , layout, planting, weeding, rainfall condition, SMS (until now almost 30 % of the data needed for the study) were recorded or reported.
- 85 % of the farmers responded/ send SMS message to central data processing unit at WUR center and N2Africa office
- Ahead there is an intensive data collection period (remaining 70% data)
- Need to establish an economic and impact assessment work on the adaptation trial and later on market links
- Need additional training on data compilation and how to do?

Main Challenges



- Poor poor Financial disbursement
- Shortage of Vehicle and or driver for research conduct
- Shortage of technical assistance
- Flooding of experimental plots
- Wageningen URC – Digital data follow-up, data management data refining and reporting

Way forwards



- Researchers are committed to continue work with the project idea
- Need to finance the project activities intervention
- The EIAR and or Center management (DZARC) should relook for the vehicle /driver allocation and resolve the problem
- Urgent technical assistant recruitment (center level)
- Procurement of important items ahead of harvesting time
- On time settlement for financial statements



**Thank
you**