A Report on Climate Smart Feed and Forages Training Bale Zone, Oromia

Report

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AICCRA
Accelerating Impacts of CGIAR Climate Research for Africa

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About AICCRA Reports

Titles in this series aim to disseminate interim research on the scaling of climate services and climate-smart agriculture in Africa, in order to stimulate feedback from the scientific community.

Photos

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About AICCRA

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ABBREVIATIONS

AICCRA	**Accelerating Impacts Of CGIAR Climate Research for Africa**
TAAT	**Technologies for African Agricultural Transformation**
ILRI	**International Livestock Research Institute**
DA	**Development Agents**
NGO	**Non-Governmental Organization**
TOT	**Training of Trainers**
EM	**Effective Microorganisms**

Introduction

Livestock production and productivity are very low in Ethiopia. Poor quality and inadequate quantity of feeds are major constraints in the Ethiopian highlands. The farming system in Bale zone, where AICCRA project has been operating, is dominated by production of wheat as a major food and cash crop. Most grazing lands changed to cultivated lands due to increasing human population. Wheat straw has been the major livestock feed in the area, which is low in palatability and nutritional value. As a result, livestock production and productivity have been declining from time to time. Therefore, the introduction of climate smart feed and forage innovations into the area becomes crucial. It will have an added value to supplement the available feed and forage and, in the long run, transform livestock production and productivity.

To overcome the livestock feed and associated problems, the government seeks active engagements from NGOs, government lead projects, national and international research institutions, higher education institutions, and private sectors. To achieve this objective, capacitating experts, development agents and farmers is crucial. In line with this objective, AICCRA and TAAT projects have been jointly working and providing training on climate smart feed and forage innovations, organizing experience sharing visits and practicing a forage seed supply scheme in a revolving seed system approach. More than 400 households (>36% female), 18 DAs and 8 experts engaged in the recently organized theoretical and practical training program. The training was delivered from 10-22 July 2023 at each kebele level in two districts (Sinana and Goba). Representative farmers from eight kebeles managed to attend the training.

This report covers the trainings delivered at kebele level, objectives of the training, mode of training delivery and the number of beneficiaries.

Objectives of the training

- To equip farmers and Kebele DA's
- with knowledge and skills in cultivated forage production, management, and utilization.
- To train farmers, DAs and experts on how to integrate forage production in soil and water conservation structures, and growing niches.
- To train farmers and DAs on post-harvest feed management and utilization.
- To provide refresher training to experts and kebele DAs on animal feed seed production and management practices.

Mode of Training Delivery

To better achieve the intended objectives, we set some selection criteria to choose target districts, kebeles and farmers. Based on that, two target districts (Sinana and Goba), six kebeles (Welteyi Berisa, Kebira Shaya, Hawusho, Welteyi Wecho-Sogido, Welteyi Magida, and Welteyi Tosha kebeles) were selected, respectively. A total of 400 HHs were selected for the training. The training was delivered at farmers training centers (FTCs).

First, the project organized a refresher training of trainers (ToT) for selected expert from Bale zone and the two target districts (Sinana and Goba) for two consecutive days at ILRI campus, in Addis Ababa. The training was participatory and interactive where participants had a chance to share their practical experiences to their respective sites and also able to learn from each other. The training participants were the former Africa RISING and AICCRA projects contact persons. The training was delivered from 28-29 March 2023.

Subsequently, concept note, cost breakdown and training action plans was developed. Following this, the training facilitated by ILRI staff and delivered by the trained trainers from both districts in between 10-22 July 2022.

Photo 1:Group of farmers being trained on climate smart feed and forage innovation at Welteyi Berisa Kebele FTC, Sinana district.

The training was provided for selected farmers and DAs from six kebeles. The objective was to equip farmers and Kebele DAs with knowledge and skills of cultivated fodder production, integrated forage production and management including post-harvest management and utilization as well as forage seed production. Following the training, forage seed of mixed oat with vetch packed and stored for dispatch to the trained farmers (Photo 2 and 3).

Photo 2: Mixed Oat and Vetch seed preparation for distribution in Oromia seed enterprise (OSE) Bale branch.

Photo3: Mixed oat and Vetch seed weighted, packed and ready for dispatching.

Photo 4: Partial view of farmers while collecting mixed Oat and Vetch seed for scaling, at FTC in Welteyi Berisa Kebele, Sinana district.

Photo 5: Mixed oat and vetch seed while dispatching to farmers at FTC in Kebira Shaya Kebele, Sinana district.

Photo 6: Mixed Oat and Vetch seed dispatching to trained farmers at FTC in Hawusho Kebele, Sinana district.

Photo7: Training delivery at FTC in Welteyi Wecho-Sogido Kebele, Goba district

Photo 8: Female farmers participation on the training in Welteyi Wecho-Sogido Kebele, Goba district.

Photo 9 Mixed Oat and Vetch seed dispatching to trained farmers at FTC in Wlteyi Wecho-Sogido Kebele, Goba district,

Photot 9: Mixed Oat and Vetch seed dispatched to trained farmers at FTC in Welteyi Magida Kebele, Goba District.

Photo 10: Mixed oat and vetch seed dispatched to trained farmers at FTC in Welteyi Tosha kebele, Goba distrcit.

The female farmer participation rate was high and it was over 36% (see Table 2 below). The ILRI site coordinator in Bale effectively facilitated ng in the two target woredas. Training materials that had been translated into the local language helped to make the training easy. The training was delivered by AICCRA contact persons who had been trained on climate-smart feed and forage innovations at ILRI. Photos and videos were used to make the training more attractive and interactive. These material helped to improve understanding among farmers and development agents (DAs).

Farmers and DAs were happy with the training and motivated to apply the knowledge and skills they had gained. They were grateful to the AICCRA/TAAT and MFS projects. In total, 413 participants attended the training, including farmers, DAs, and experts (see Table 2).

Table 1: Farmers, DAs, and Experts participated in climate smart feed and forage innovation training, Bale zone, 2023.

Zone	Woreda	Kebele	Famers		DAs		Experts		Total		
			Male	Female	Male	Female	Male	Female	Male	Female	Total
Bale	Sinana	Welteyi Berisa	35	30	2	1	2	1	39	32	**71**
		Kebira Shaya	39	26	-	3	3	1	42	30	**72**
		Hwusho	48	24	1	2	3	1	52	27	**79**
	Goba	Welteyi Wecho-Sogido	44	21	2	2	2	-	48	23	**71**
		Welteyi Magida	34	17	2	-	2	1	38	18	**56**
		Welteyi Tosha	34	17	3	1	3	-	40	18	**58**
		Aloshe	2	-	-	-	-	-	2	-	**2**
		Ititu-Sura	3	1	-	-	-	-	3	1	**4**
Total		**8 Kebeles**	**239**	**136**	**10**	**9**	**15**	**4**	**264**	**149**	**413**

Table 2 above shows that out of the total of 400 farmers selected, 375 hhs directly engage in the training. The total number of female farmers was 136 which constitutes 36% of the total participants. The remaining number of farmers missed due to personal problems and others. Six farmers from last year trainees engaged from two Kebeles (Aloshe and Ittu-Sura kebeles) in Goba district. 19 DAs from six kebeles and 19 experts from woreda and zone including higher officials engaged in the training. Total, 413 participants including experts, DAs, and model farmers involved in the training organized in the two woredas and six kebeles. Out of the total participants the proportion of females' participation was 36%.

Major outputs/Results

After this training delivery, experts, DAs and farmers better understood the benefit of improved feed and forage innovations. Farmers were motivated and interested to apply what they grasped through the training on the ground. They promised to allocate land for selected fodder cultivation.

- Farmers were also familiarized with feed conservation technologies/postharvest feed mangment-feeding trough and feed storage.
- They also informed the different ways of crop residue treatment to improve its quality and palatability. Some of them were silage making, treating CR with effective microorganisms (EM) and molasses. They were happy with the innovation and interested to continue applying the technology.
- Pannal discussion was organized after each the training program. The seed supply issues, supply of molasses and EM, AI and related issues were the major points of discussion.
- After the training, the number of farmers who applied improved feed and forage innovation increased. AICCRA project supplied Oat 2 tonsand Vetch 0.8 ton for oat + vetch mixture scaling in the woredas where we trained farmers and DAs.

Table 1: Forage seed dispatched, number of hhs addressed in the target districts and area coverage (ha)

Woreda/institution	Forage seed dispatched (Kg)				Number of HHs	Total Area (ha)	Number of kebeles
	Oat	vetch	Oat + vetch	Alfalfa			
Sinana	250	190	1065	3.8	315	19.86	8
Goba	140	150	975	3.8	319	16.53	5
MWU	NA	NA	NA	3.5	NA	0.35	NA
• **Total**	**390**	**340**	**2040**	**11.1**	**634**	**36.74**	**13**

The ILRI site coordinator in Bale successfully facilitated the seed preparation and dispatching from 10-21 July 2023. Oat for seed multiplication, oat and vetch mixture for scaling, and alfalfa seeds dispatched to farmers in the target districts. Table 3 above indicated that

in the two target woredas, we able to address 634 direct beneficiary farmers in 13 kebeles. Eight Kebeles in Sinana, five Kebeles in Goba woredas. In total, we able to cover above 36 ha of land.

Summary of Participant Satisfaction Survey

The participant satisfaction survey results are very positive. Respondents are highly satisfied with the quality and usefulness of the climate-relevant knowledge products, decision-making tools, and services received under AICCRA, as well as with the effectiveness of the partnerships under AICCRA. A high percentage of respondents have also used or adapted AICCRA-funded climate-relevant knowledge products, decision-making tools, and services. The results suggest that AICCRA is having a positive impact on its target audience. The project is providing farmers, DAOs, and experts with the knowledge and tools they need to adapt to climate change and build more resilient food system

Table 2 Analysis of the participant satisfaction survey questionnaire

		Analysis of Questionnaire							
ID	**Questions**	**sub-questions**							
i	Gender of the respondent	**Male**	32	Female	26				
ii	Age of the respondent	**18-30**	19	31-40	17	41- 50	18	Abve-51	4
iii	Education status of the respondent	**Below diploma level**	34	Diploma	6	Bachelor degree	17	Masters and beyond	1
1	IPI 1.3: Satisfaction with the quality and usefulness of Climate relevant knowledge products, decision-making tools and services received under AICCRA expressed by surveyed partners and stakeholders express	Satisfaction with expert's refresher training	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			
			8	50					
		Satisfaction with journalist refresher training	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			

			13	45					
		Satisfaction with Farmers' trainings	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			
			8	50					
		Satisfaction with radio programs	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			
			21	37					
2	Satisfaction with the effectiveness of the partnerships under AICCRA expressed by surveyed partners and stakeholders	Satisfaction with expert's refresher training	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			
			16	42					
		Satisfaction with journalist refresher training	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			
			14	44					
		Satisfaction with radio programs	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			
			23	34	1				
		Satisfaction with Farmers' trainings	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			
			2	56					
3	Use or adaptation of AICCRA-funded climate-relevant knowledge products, decision-making tools and services stated and confirmed by surveyed partners and stakeholders	Satisfaction with improved forage innovations	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			

			17	41					
		Satisfaction with training programs	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			
			12	46					
		Satisfaction with knowledge products	Satisfied	Very satisfied	Unsatisfied	Very unsatisfied			
			11	47					
		Summary							
		Farmers = 34							
		DAs = 15							
		Experts=9							

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