

Breaking wheat-based monocropping system through scaling of diverse crops and varieties in the highlands of Ethiopia

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Introduction

Bread wheat is the third important food crop in the highlands of Ethiopia. Monocropping and rust disease epidemics remain challenges to increase bread wheat productivity and production. One of the strategies used in the AFRICA RISING (2012-2022) project was re-introducing high yielding food and malt barley, durum wheat and food legumes into the bread wheat based cropping system through participatory variety selection (Phase I) and, community seed production and scaling (Phase-II).

Materials and Methods

- A total of 82 released but shelved cereal and food legume varieties were validated by 244 farmer plots and farmer training centers in four zones
- The varieties were evaluated by 1,708 (647 female) farmers at crop maturity in the IP sites
- The project provided over 100 tons of revolving early generation seeds for seed multiplication and scaling
- Field days were organized to create awareness about new technologies

Results

- 38 cereal and food legume crop varieties selected and 21 are under production (Fig. 1)
- Over 1300 ton of early generation seeds produced by seed growers (Fig.2)
- Over 240,000 HHs (16% female) directly benefited from the innovations
- The innovations covered over 20 districts of the four intervention zones.
- Currently seven community-based seed producing unions are producing selected varieties

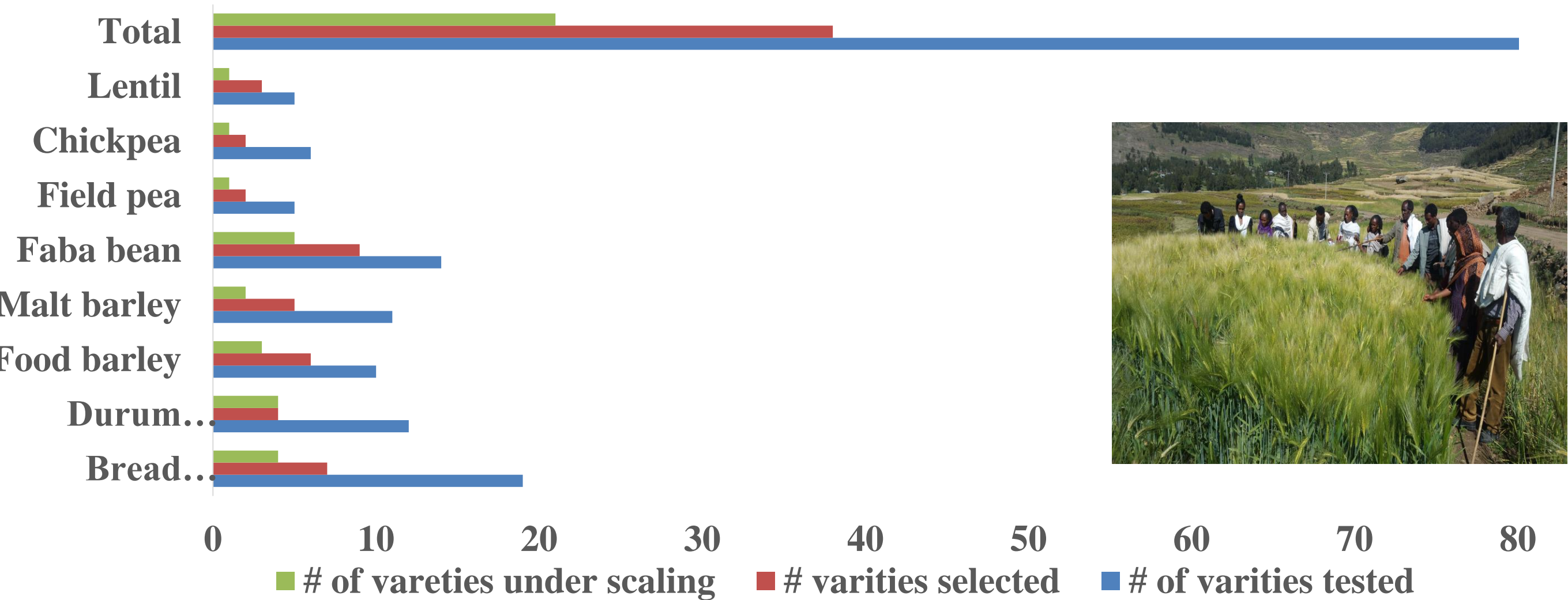


Fig. 1. Participatory variety selection

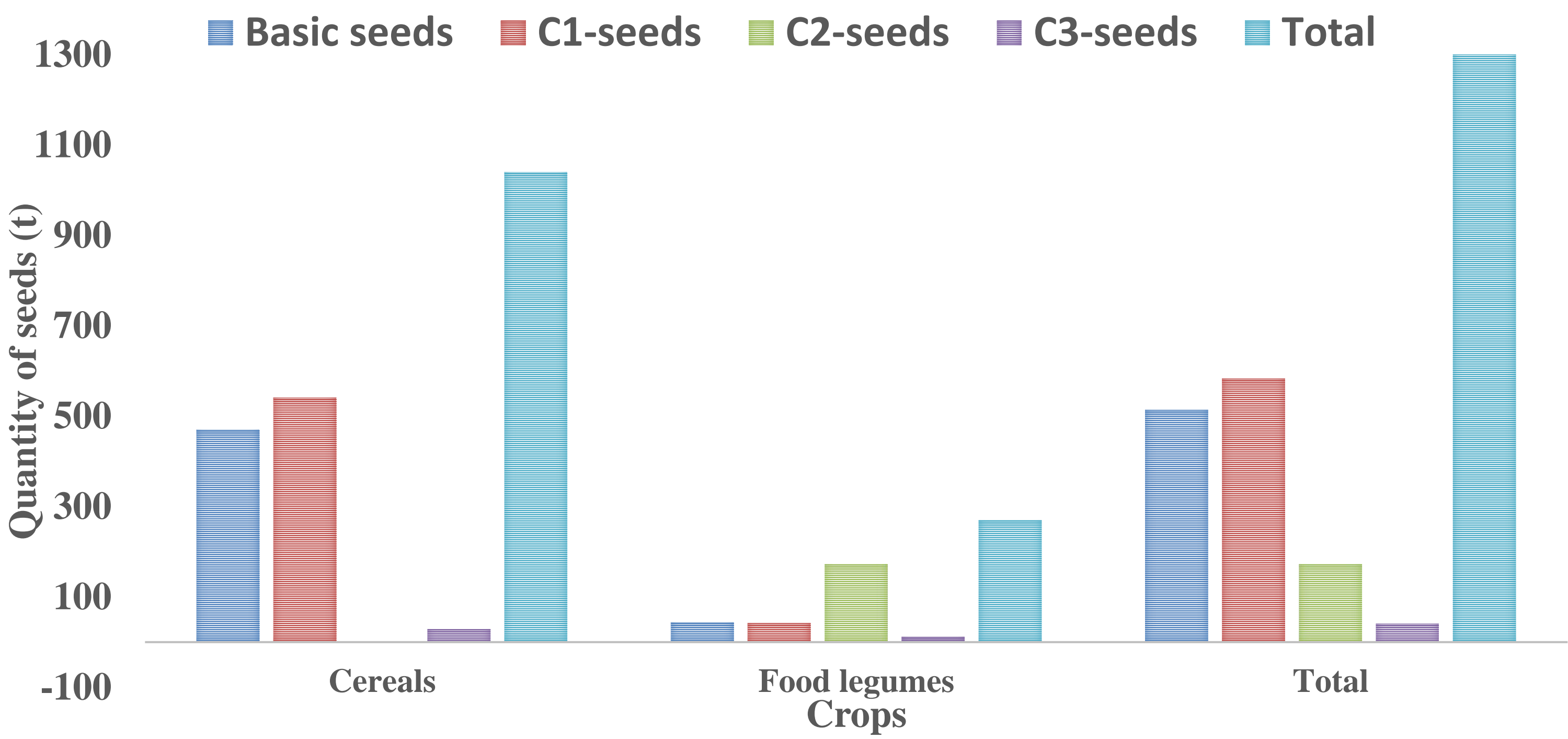


Fig. 2. Quantity of quality seeds produced by community seed growers



Conclusion

- Many of the cereal and food legume varieties showed wide adaptations
- Area coverage of high yielding bread wheat cvs. Deka, Lemu and Wane is increasing in the intervention zones
- Farmers are growing high yielding durum wheat, food and malt barley varieties in Tigray, Amhara and Oromia intervention zones
- Many faba bean varieties were preferred by farmers over the other cool season food legumes
- The project introduced high yielding cereals and food legumes to diversify bread wheat dominated cropping system
- Community based seed production can help farmers to access quality seeds to boost productivity
- Linking malt barley and durum wheat production with agro-industries is key area of interventions

Partners

