

Ends					
Levers	Productivity	Resilience / Ecosystems Services ¹	Livelihoods (Income / Assets)	Nutrition for Human Health	Equity and Empowerment ²
Systems diversification and risk management					
Component improvement	<ul style="list-style-type: none"> Breeding “better” staples, non-staples, focus on neglected crops; seed systems 	<ul style="list-style-type: none"> Stress tolerance (biotic; abiotic) 	<ul style="list-style-type: none"> Higher and more consistent yields 	<ul style="list-style-type: none"> Breeding for nutrient content 	
Agroecological pest management	<ul style="list-style-type: none"> Reducing pest and disease losses 	<ul style="list-style-type: none"> Reducing vulnerability Storage pest management 	<ul style="list-style-type: none"> Access to organic / eco-markets Storage pest management 	<ul style="list-style-type: none"> Reduced pesticide exposure Reduced mycotoxins 	
Systems diversification	<ul style="list-style-type: none"> Focus on neglected crops covering multiple functions Improving systems efficiency; higher value products, including livestock and trees 	<ul style="list-style-type: none"> Legume integration in cereal-based systems Systems design for resilience 	<ul style="list-style-type: none"> Value chains for globally marginalized but locally important crops; Something to sell all year 	<ul style="list-style-type: none"> Dietary diversity Traditional food products Protection of alternative crops that serve as subsistence/ cash safety nets in times of crisis 	<ul style="list-style-type: none"> Disaggregation and use of knowledge systems, by gender, caste, ethnic group, etc.
Risk management	<ul style="list-style-type: none"> Crop diversification Systems design Managing pests and diseases 	<ul style="list-style-type: none"> Crop diversification Coping with climate variability and change 	<ul style="list-style-type: none"> Crop diversification 	<ul style="list-style-type: none"> Crop diversification Smooth consumption 	
Improving farm resource-use efficiency	<ul style="list-style-type: none"> Design of systems for improved performance (multi-functional); modeling Integrated soil fertility management Improved input (fertilizer) access Mechanization of small-seeded crops 	<ul style="list-style-type: none"> Building soil fertility; water holding capacity 	<ul style="list-style-type: none"> Increased profitability via improved input use efficiency and higher yields 		
Building social capital					
Social/ technical innovation				<ul style="list-style-type: none"> Participatory video 	<ul style="list-style-type: none"> Access to knowledge
Building human and social capital, and collective action³	<ul style="list-style-type: none"> Farmer organization enhance technology access 	<ul style="list-style-type: none"> Strengthening of social capital leading to more resilient systems 	<ul style="list-style-type: none"> Credit schemes allow people to invest Farmer organization leading to more effective marketing and access to inputs 	<ul style="list-style-type: none"> Consistent consumption (social insurance) 	<ul style="list-style-type: none"> Designs to increase inclusiveness Strengthening power positions of the marginalized
Markets and Policy					
Improving functionality of value chains	<ul style="list-style-type: none"> Incentives based on market opportunities 		<ul style="list-style-type: none"> Improving market access for smallholders 	<ul style="list-style-type: none"> Dietary diversity through more diverse products Weaning foods 	<ul style="list-style-type: none"> Ensuring participation of women and marginalized groups
Influencing policy	<ul style="list-style-type: none"> Subsidy provision; research investment 	<ul style="list-style-type: none"> Subsidies for legumes (not just fertilizer) 		<ul style="list-style-type: none"> Food safety; Support for nutrition education 	
Cross-cutting capacities	<ul style="list-style-type: none"> Capacity building: student training; research methods (ex. participatory action research); integrated monitoring, evaluation and planning capacity; farmer-to-farmer learning; knowledge management 				

¹ Refers to multiple scales and how they function independently and integrated, with an explicit focus on global pressures.

² Refers to equality, empowerment, and inclusion of marginalized groups and cultures.

³ Including gender, age, and marginalized groups