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## Watershed Conservation-based Market Oriented Commodity Development: A Move Towards Resilient Farming?

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### Abstract

Reversing watershed degradation and food insecurity has been one of the major development challenges in the semi-arid areas of northern Ethiopia where rainfed dependent mixed crop-livestock farming is predominant. As an entry point, the conservation and enclosure of watersheds have resulted in improved water retention capacity and recovery of perennial bee forage plants in upstream hilly sides, and revitalized surface and groundwater in the downstream of the watersheds. Despite the intensive interventions in watershed conservation and recovery, the contribution to the economy of smallholder farmers has been low. In order to increase benefits to farmers, participatory, demand driven, skill and knowledge based market oriented commodity development has been introduced, tested and promoted in Atsbi district, northern Ethiopia, since 2005/06. Beekeeping in the upstream, sheep fattening in the forage rich bottomlands and high value irrigated crops in the downstream were promoted. The tested commodity interventions follow the value chain framework including improved technologies, processing and establishment of market linkages and access to improved inputs. Results of action research show that the average net income of smallholder farmers increased by about three-fold in the upstream, by four-fold in bottomlands and by nine-fold in the irrigated downstream of the watershed compared to the non-beneficiary households. This income difference was also observed in seasons with extreme rainfall variability when the traditional crops failed to produce grain and declined livestock productivity in the non-intervention sites. The generation of better benefits from the integrated watersheds interventions triggers the community to re-invest and protect the watersheds sustainably. The results imply that integrating natural resource conservation with market oriented commodity development provides real incentive for farmers to follow sustainable farming practices.

**Keywords:** Income, market oriented production, resilient farming, watershed gradient