

## Overview

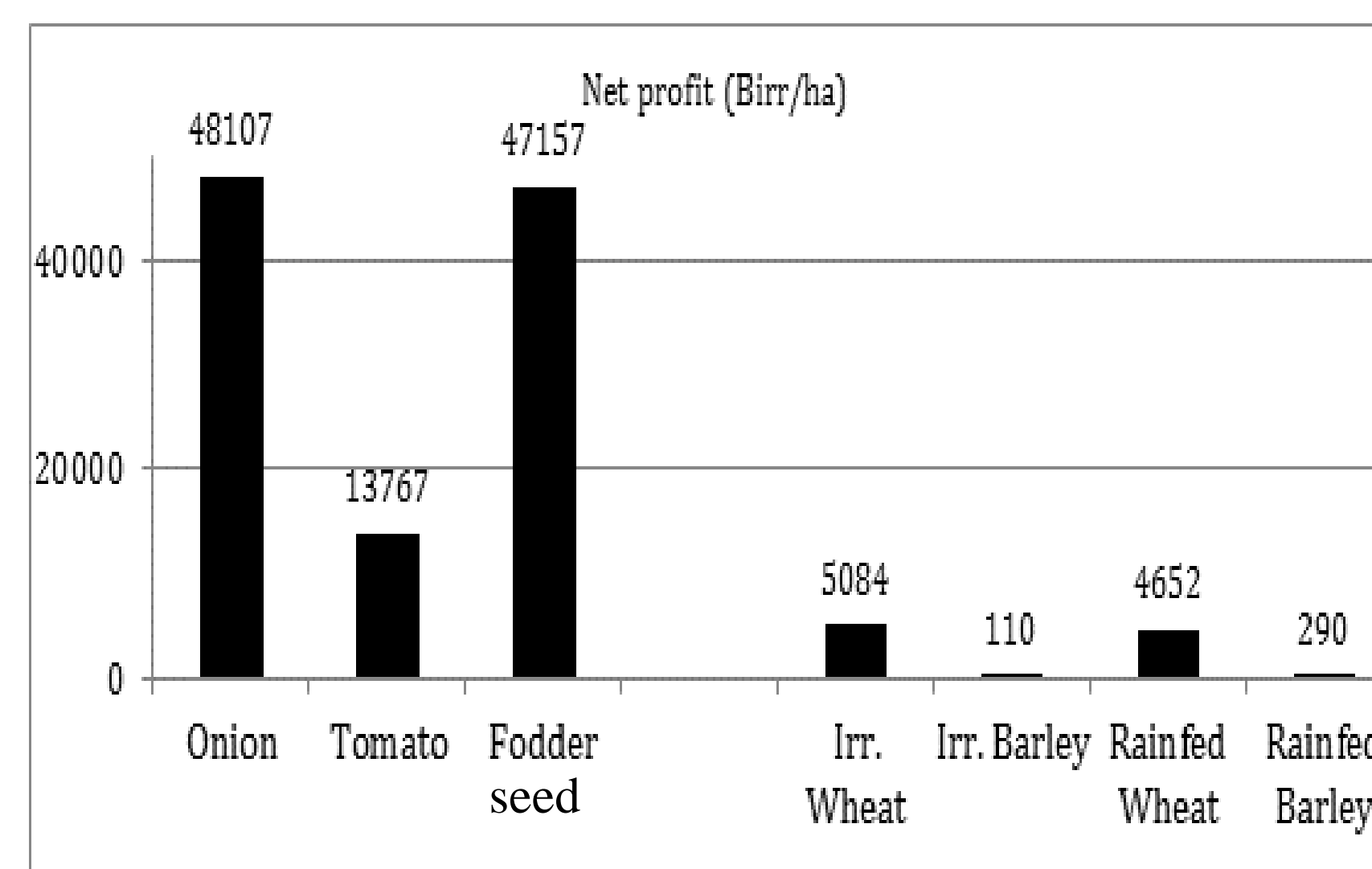
Profit can be considered as an important economic incentive driving the investment decisions of smallholder farmers in irrigated agriculture. However, as a new business, production of high value irrigated crops can be risky for smallholder farmers. This makes it important to understand profitability and risk associated with irrigated agriculture. This paper reports assessment results of farm profit for selected commodities in selected sites of Ethiopia. Data used in the analysis refers to the 2013/14 production year.

## Objectives

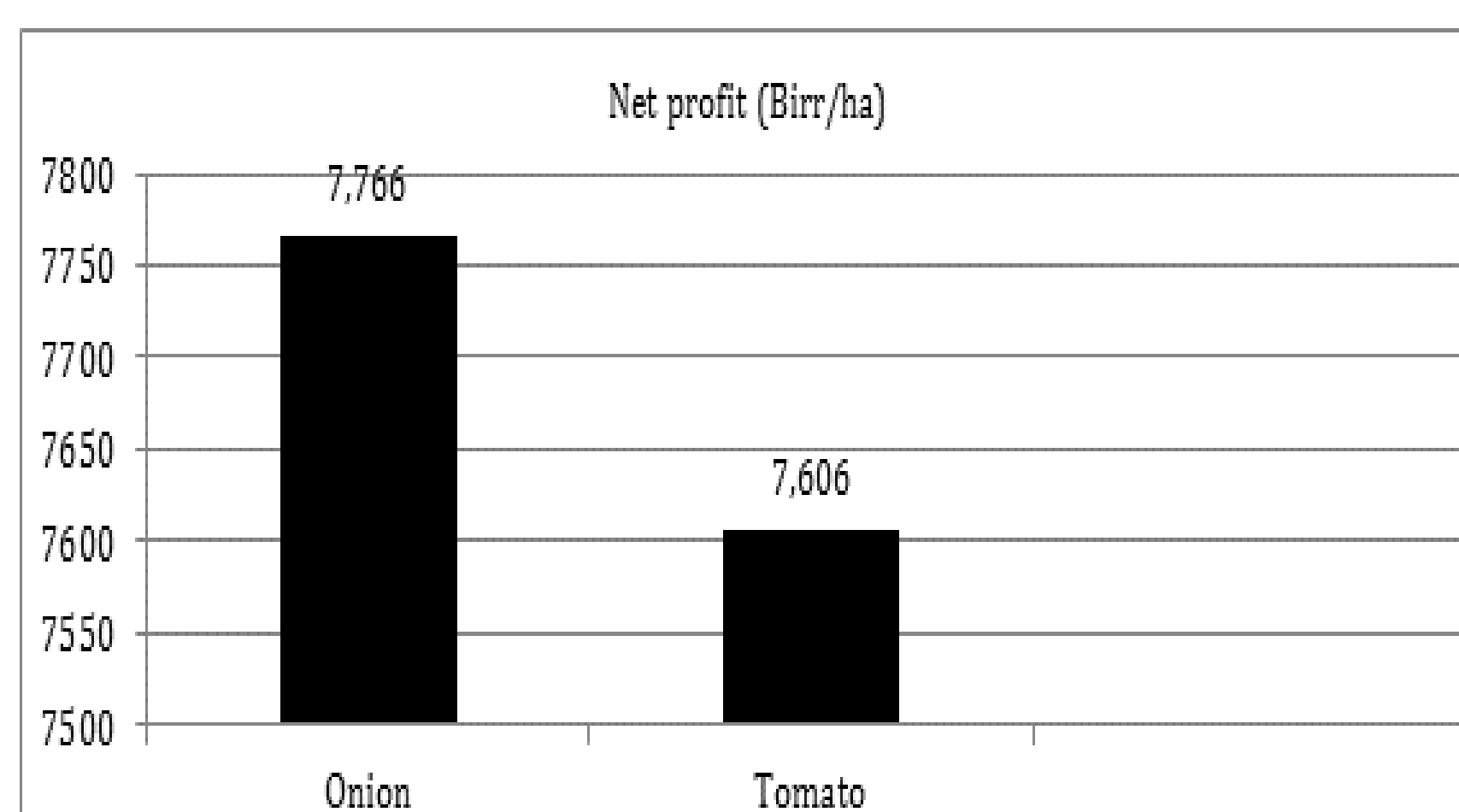
- Assessing profit generated from respective crops and
- Assessing the perceived level and sources of business risk in irrigated agriculture

## Methods

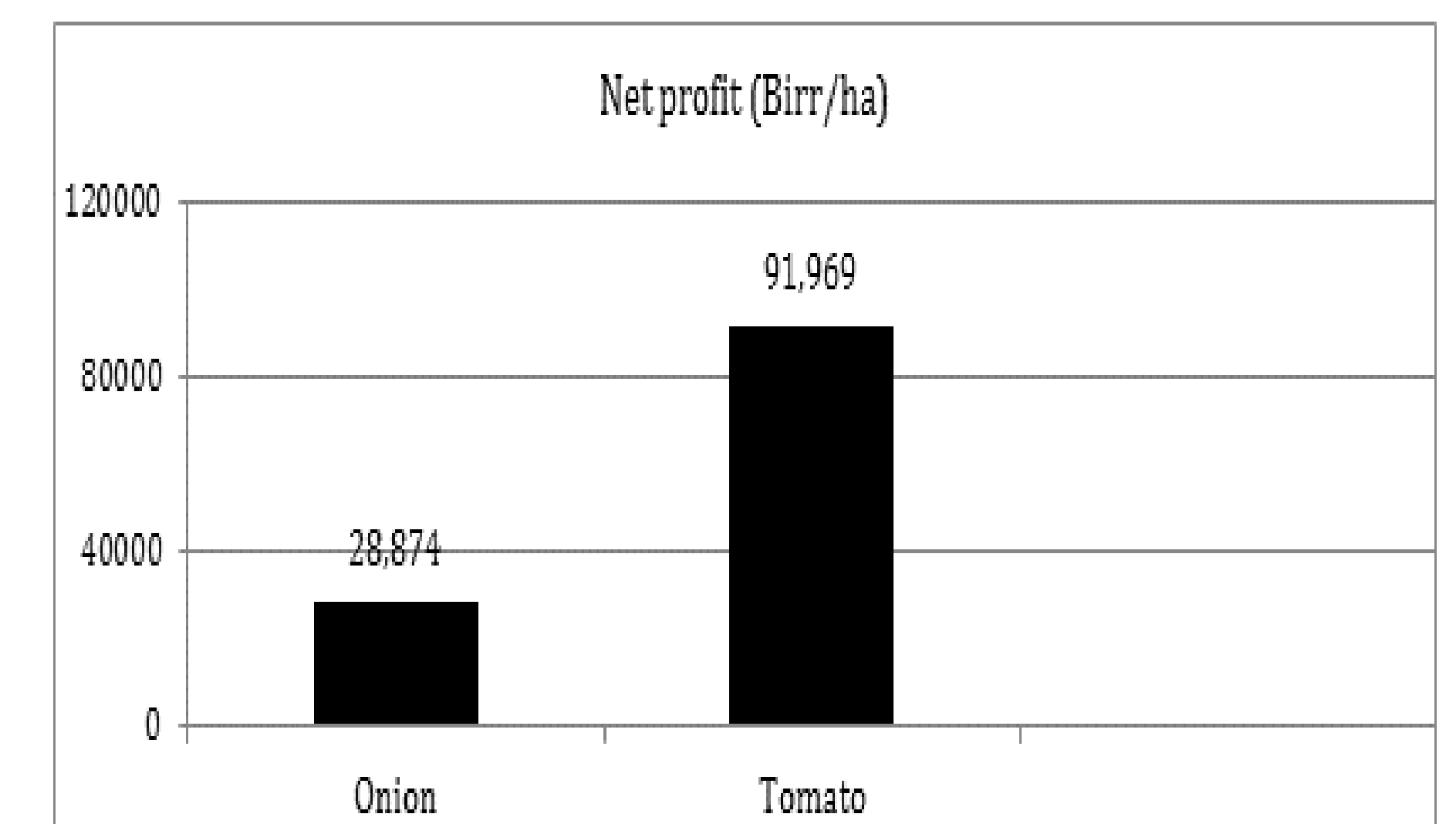
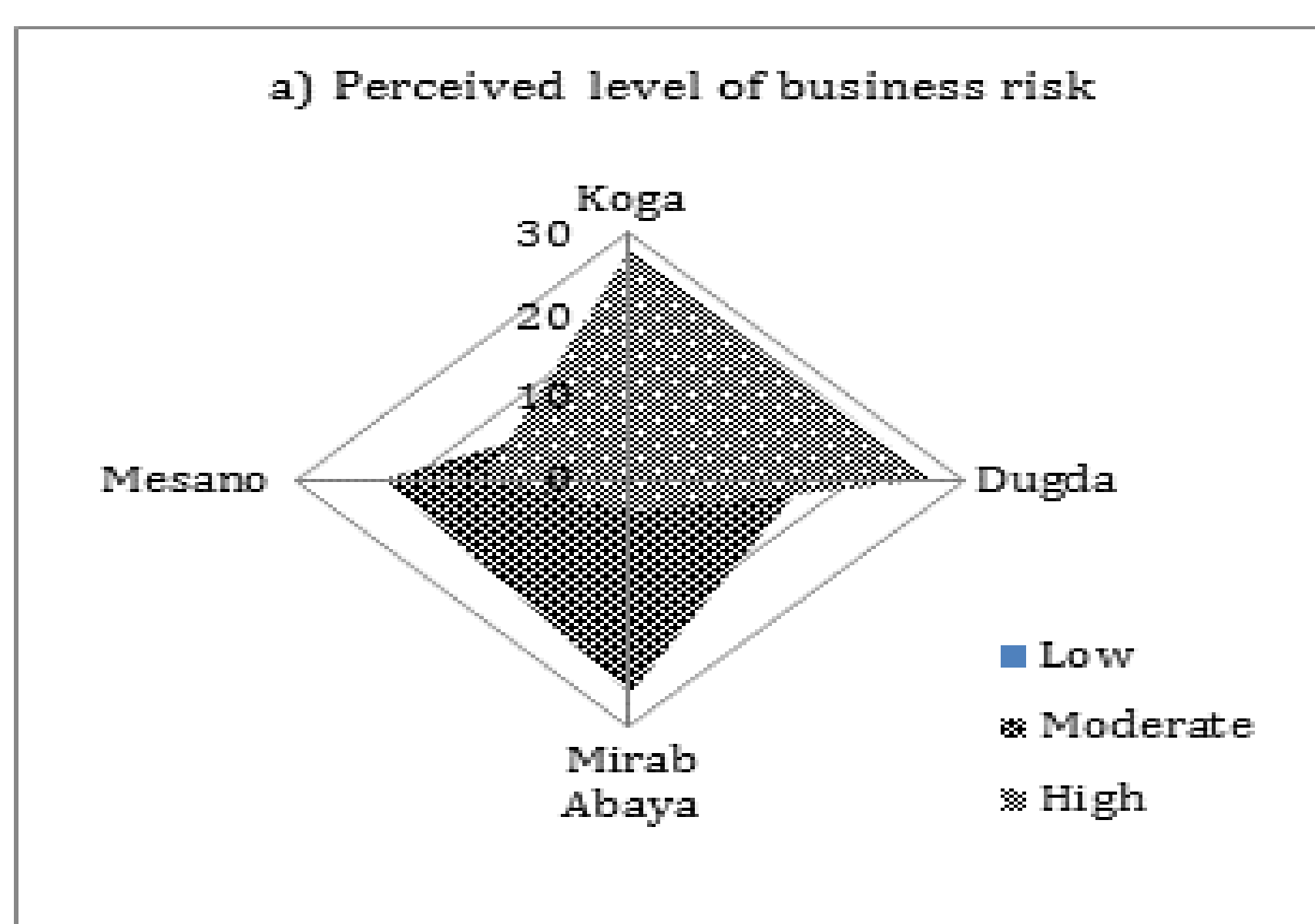
- The study was conducted in four sites located in four regions of Ethiopia. The specific sites are Koga (Amhara), Dugda (Oromia), Mirab Abaya (SNNPR) and Mesano (Tigray).
- Commodities considered for analysis include Rhodes grass seed (irrigated fodder), irrigated wheat, irrigated barley, rainfed wheat and rainfed barley as additional crops.
- Profit analysis was made using descriptive and stochastic simulation techniques.



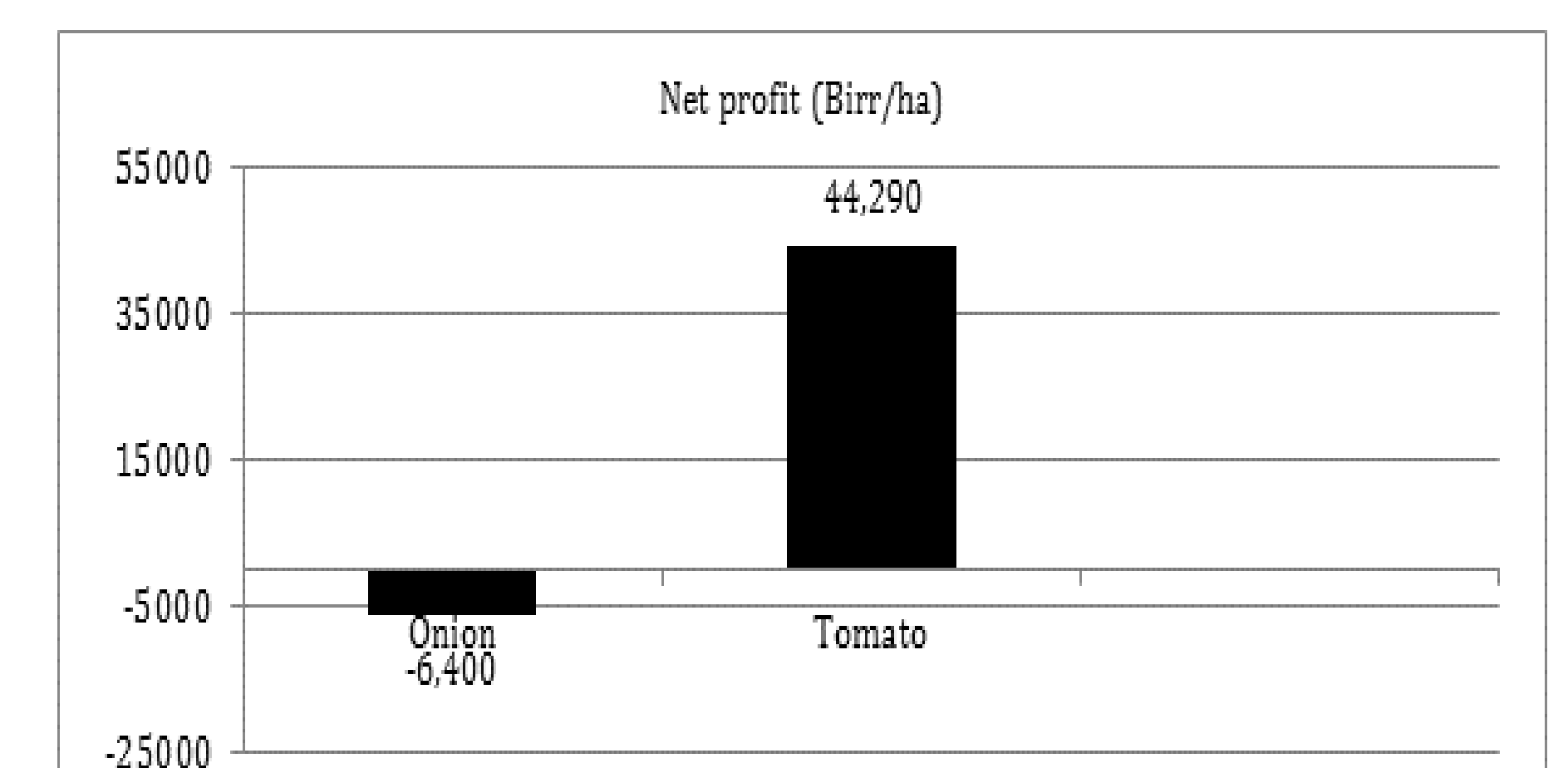
Profit by commodity type (Koga)



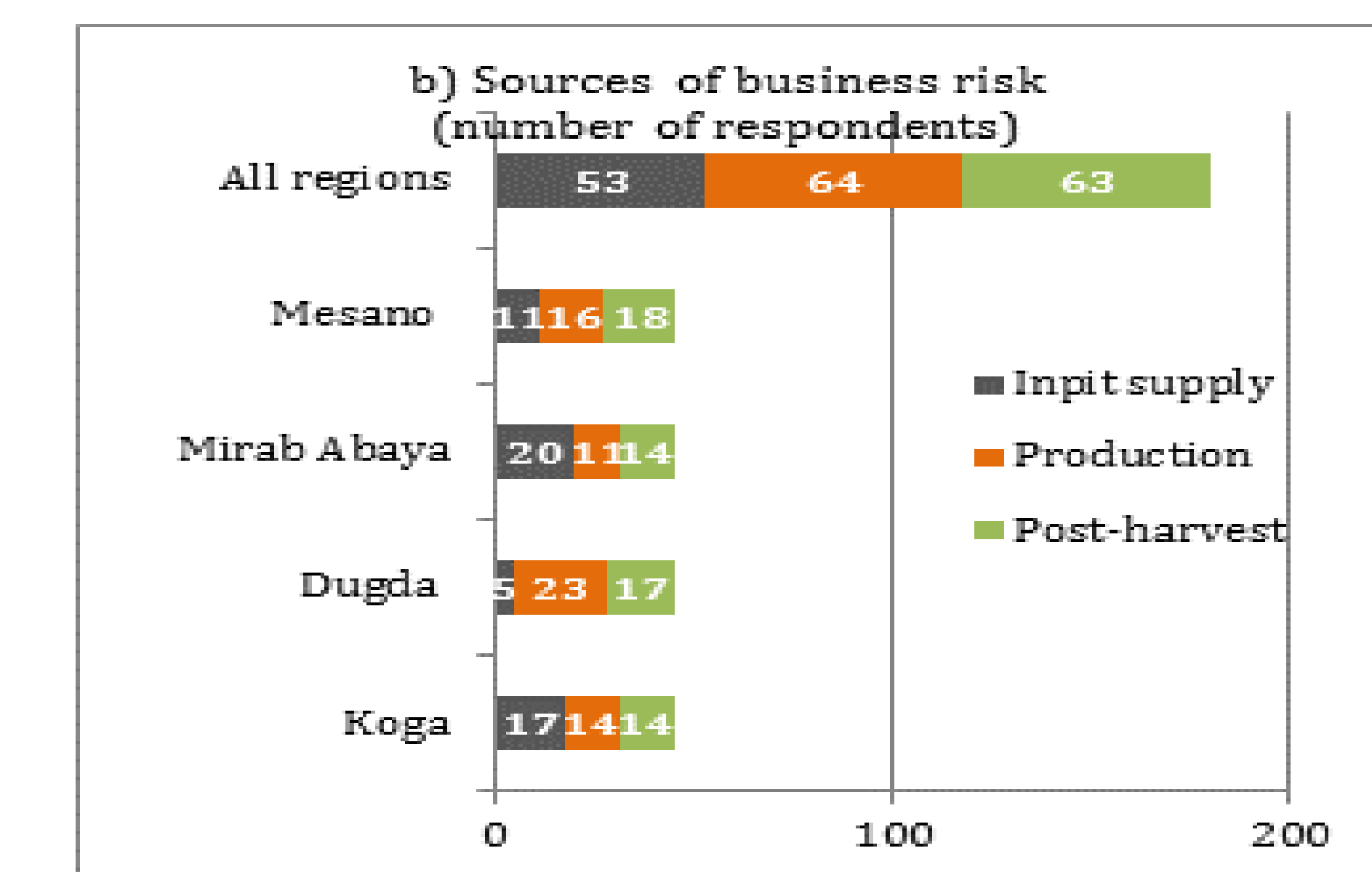
Profit by commodity type (Mirab Abaya)



Profit by commodity type (Dugda)



Profit by commodity type (Mesano)



Farmers' risk perception and its sources (Figures a and b)

## Findings and key message

- Irrigated agriculture of high value crops generates more profit per unit of irrigated area compared to the rainfed crop production.
- Irrigated fodder seed production from Rhodes grass, recently introduced in the Koga irrigation scheme, generates more profit compared to traditional irrigated commodities such as tomato.
- Difference in profit levels observed for commodities in and between sites suggests differences either in one or all of the exogenous variables that affect profit. These include crop yield, production cost and output price.
- The level of perceived business risk by most irrigators ranges from moderate (mainly at Mirab Abaya and Mesano) to high (at Koga and Dugda), with both input supply, production and post harvest stages of the value chains mentioned as sources of risk.
- The findings suggest the need to improve the entire value chain of irrigated agriculture by targeting interventions at all value chain stages.