

# A NATURAL RESOURCE: THE REINDEER

## ECONOMIC EFFECTS OF REINDEER HUNTING IN EAST ICELAND

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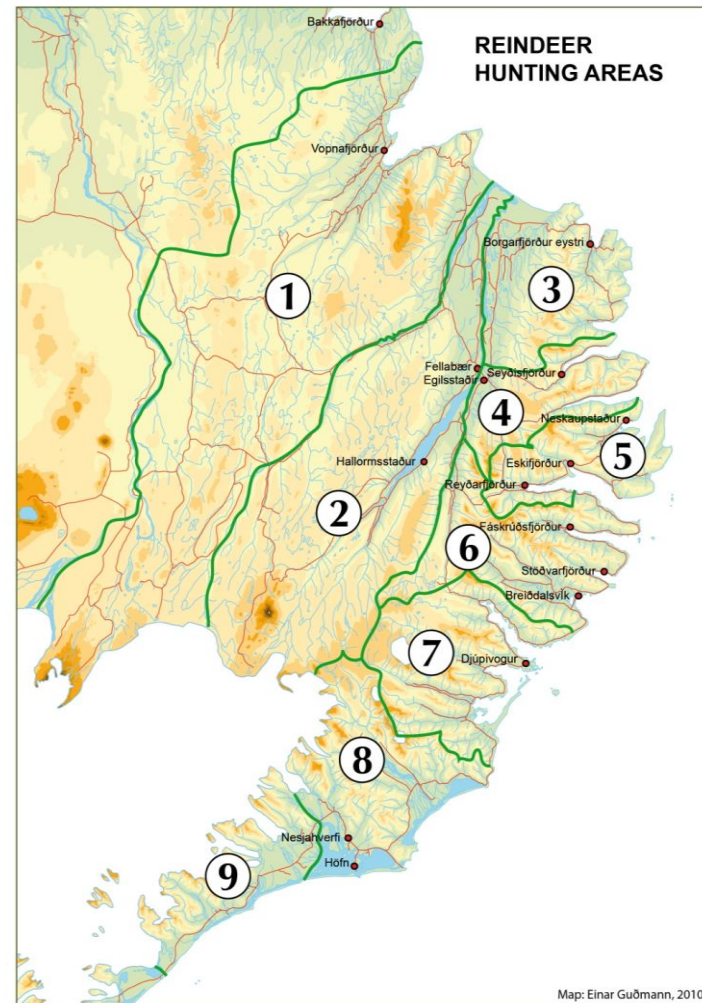
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# THE REINDEER

- The origin of reindeers
- The history
- The stock
- Hunting areas



## THE PURPOSE OF THE RESEARCH

- Stated aims and objectives
- The importance of tourism
- Hunting tourism is a significant addition to rural areas
- Farmers are renting their land to hunters
- Hunting expands the tourist season
- Little information on economic impact of hunting
  
- The research question: What is the economic impact of reindeer hunting on the hunting area?



## OVERVIEW OF LITERATURE AND REASEARCHES

- Karlsson, Local multiplier effects, large scale investment in E.I.
- McNicoll, The industry multipliers of the Shetland economy
- Sinclair and Sutcliffe, Keynesian income multipliers with first and second round effects: An application to tourist expenditure in Malaga
- Bleaney et. al., What does a University add to its local economy?
- Heiðarsson, The population and need for accommodations in East Iceland in 2008
- Knútsdóttir, the income multiplier effects in E.I.
- Foreign reacerch on hunting
- Icelandic reacerch on angling



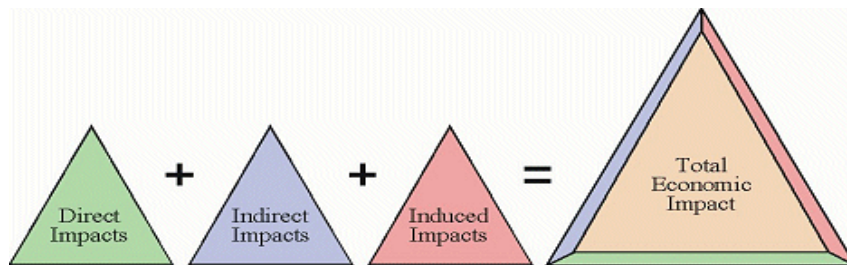
## THE SURVEY AND DATA

- The questionnaire
- Data collection
- Limitation of the study
- The population and the sample



# MULTIPLIERS

- Multipliers
- Marginal propensity to consume
- Employment multipliers
- Direct impacts, indirect impacts and induced impacts



- Keynesian multipliers

## THE MAIN RESULTS OF THE SURVEY – COSTS INCURRED THROUGH REINDEER HUNTING

	Mean	Proportion spent locally	Total spent locally
ISK			
Food, beverages, catering	15.443	35,3%	5.451
Accommodation	8.908	85,9%	7.651
Fuel / gasoline	23.229	25,1%	5.826
Transport by air / bus	5.336	17,6%	938
Rented equipment (Car, All-Terrain Vehicles)	8.564	79,2%	6.783
Hunting licence	67.444	32,3%	21.778
Hunting equipment	34.906	2,2%	768
Clothing	17.101	1,2%	200
Guidance	23.772	86,6%	20.587
Souvenirs	1.752	75,5%	1.322
First aid kit	907	27,9%	253
Recreation( hot pot, swimming, nature watching)	2.247	70,6%	1.586
Other	7.887	NA	NA
Total	217.497		73.143



## THE MAIN RESULTS OF THE SURVEY

- The total cost
- Proportion spent in the hunting area
- How long with the guide?
- Residence of the guides
- Residence of the hunters





# MULTIPLIERS

	<i>Y</i>	<i>D</i>
1	57.020 kr.	22.676 kr.
2	53.349 kr.	19.579 kr.
3	9.433 kr.	3.462 kr.
4	1.668 kr.	612 kr.
5	295 kr.	108 kr.
6	52 kr.	19 kr.
7	0 kr.	0 kr.
f	121.818 kr.	46.457 kr.
Multipliers	2,136	2,049



# ESTIMATED NUMBER OF JOBS IN EAST ICELAND BECAUSE OF REINDEER HUNTING

Estimated number of jobs in East Iceland because of reindeer hunting	Number of jobs
Direct jobs because of research, management and guidance	10.7
Indirect jobs because of delivered money	10.0
Indirect jobs because of buying of goods and services	4.0
Forward linkage effects	1.0
Total	25.7



# THE ANSWER TO THE RESEARCH QUESTION

2009	Gross output	Disposable income	Gross area production
Millions ISK	162	62	40,258
Proportion	0.4%	0.2%	
Estimated number of man year in E. I.			6,830
Estimated number of jobs in E.I. because of reindeer hunting			26
Proportion			0.4%



## THE FUTURE

- Last 10-15 winters have been mild
- The fertility of the animals is very good
- Expanding to north and south of the traditional hunting area
- The reindeer are very good adapting to fluctuations in weather
- The highland is healing up
- The reindeers will gain in the beginning
- The climate – how will it evolve?
- In the long run?



# THANKS – QUESTIONS?



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