

Vice- Presidency for Strategic
Planning and Supervision
Statistical Centre of Iran

Selected Results of Livestock Survey 1390¹

¹ . Iranian year begins on March 21st of the Christian year and ends on March 20th of the next year. To convert the Iranian year into Christian year, please add 621 to the former.

In the Name of Allah, the Compassionate, the Merciful

Verily, He has counted all creatures and He knows their exact number.

Holy Quran

Sura Maryam, Verse 94

Symbols:

-	Not collected	
000	Not available	
×	Not applicable	
×	×	Not calculable
//	Negligible	
*	Provisional	
**	Estimated figure	
⊙	Not for publication (confidential figure)	

Where figures are rounded, discrepancies may occur between sums of the components and the total. All ratios and indexes were calculated before rounding

Preface

The present report is the results of the national livestock survey which is published in the form of cross tables (tabulations) for users and researches in the field of livestock holding.

National community of animal husbandry is outspread in the form of millions of livestock units throughout the country which mostly are run traditionally and within livelihood economy of rural households. In order to provide an appropriate image on the condition of animal husbandry and livestock production of these units, it is needed to prepare and implement the nationwide statistical surveys in the forms of census or enumeration. The sample survey of the national livestock units was implemented by the Statistical Centre of Iran (SCI) after making necessary arrangements in the winter 1390.

With respect to the dispersal of livestock farms throughout the country, a sophisticated two-stage sample survey was prepared in the SCI. In that survey, a number of 3933 villages and cities were selected as sample units in the first stage. After preparing the list of the livestock units of these areas, a number of 60000 holders were selected as the samples of the second stage and were enumerated. The list of the samples for the second stage was selected and presented by the SCI for urban areas. 822 people were hired as enumerators, revisers, experts and processors in this survey. In addition, 260 cars with their drivers were employed in the implementation of this survey.

Statistical Centre of Iran acknowledges all colleagues in the Departments of Statistics and Information of General Governor Offices in the country, and also the holders who had sincere and great cooperation in this survey.

At the end, we hope the provided information may prove useful to the decision makers, planners and researchers, and the SCI, using their comments, can take effective steps in providing and disseminating statistical information.

This report along with other statistical data is available at www.amar.org.ir.

Adel Azar

Head, Statistical Centre of Iran

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Introduction

Since the SCI's establishment, implementation of sample surveys between censuses of agriculture has been one of the current programs of this Centre to respond to the statistical needs of the planners in agricultural sector. Hence, the Survey of Livestock farms was implemented during first months of 1390 in 31 provinces of the country. In this survey, the following wide variety of information was gathered:

- Number of holdings with livestock
- Age, literacy status and educational attainment of the holders
- Number of sheep and lambs, goats and kids, cattle and calves, camels & calves, and buffaloes & calves
- Number of livestock born
- Number of livestock sold for slaughtering
- Quantity of milk production
- Quantity of feeds consumption
- and the employees

Use of the provided information involves knowing concepts, technical terms and implementing methods used in this survey which may be different from inferences of the public. In order to prevent any personal inferences of the survey results, users are recommended to study definitions and concepts used in the survey.

Users' guide

The statistical method and some of its characteristics

"Holding with livestock" is the statistical unit of this survey, which is considered as main and final statistical unit of the survey.

This survey was implemented as a two-stage sampling. In the first stage, 3933 sample villages and cities were selected from the frame of the 1382¹ National Census of Agriculture. To select samples of the second stage in rural areas, at first the list of holders with livestock was prepared. Large holders² were enumerated and some holders were selected as samples out of small holders³, based on the sample survey, and questionnaires were completed for them. Using the frame of the 1382 National Census of Agriculture, the samples of the second stage in urban areas were directly prepared⁴ and sent to the executive organization of the survey in provinces for enumeration.

Information required for settled holder households and authorized corporations/public institutions were collected through face-to-face interviews with the holder or one of his/her household members. Information related to unsettled holders was collected through interviewing with him (if he/she was available) otherwise through interviewing with local informants.

Important notes for using statistical tables

Every statistical table comprises titles, column headers, description column and context of table whose contents should be paid attention carefully. The table includes numbers that form statistical information and can be understood and explained by three parts (title, column headers, description). In some cases, these three parts do not provide enough information to grasp the table; therefore footnotes, definitions and concepts, explanations and enumerator's guidebook should be taken into account.

In title of the table, the subjects such as level of geographical coverage, statistical date and nature or the concept of the numbers in the table are totally explained. Column headers and description column accurately specify nature and concept of the information in crossed cell of the table.

In statistical tables of this survey, description column includes information related to classification of holdings with livestock.

Significant notes

- ✓ In reviewing the results of the survey, it should be noted that due to limitations on selecting the number of samples in provinces (because of executive considerations), estimates of the total country are more accurate than provincial estimates. Also, results of the survey are affected by relative errors in sampling survey.

¹ . Iranian year begins on March 21st of the Christian year and ends on March 20th of the next year. To convert the Iranian year into Christian year, please add 621 to the former.

² . Large holder: is a holder whose total number of small livestock (sheep, goats) or total number of large livestock (cattle, buffaloes, camels) is more than 120 and 20 heads respectively on enumeration day.

³ . Small holder: is a holder whose total number of small livestock or total number of large livestock is not more than 120 and 20, respectively on enumeration day.

⁴ . With respect to low share of urban areas in the number of notional livestock as well as due to low changes in livestock number in urban areas compared with those of rural areas and also owing to limitation of executive possibilities of the survey, listing for holders with livestock in urban areas and large villages (villages with high number of household and low number of livestock) was not prepared in the year 1390.

³ . November

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- ✓ In reviewing changing trend of small livestock, it should be noted that the 1372 and 1382 National Censuses of Agriculture were implemented in the month of Aban¹ (i.e. minimum population of small livestock) whereas the 1382 and 1387 and 1390 surveys were taken in the winter (coincidence with giving birth of small livestock).
- ✓ Holders who were moving with all members of their family on the day of enumeration were not included in this survey. If these kinds of households were settled in their winter quarter village on the day of enumeration, they were listed as settled holder.
- ✓ In comparison of the figures of South Khorasan province with the results of the 1382 National Census of Agriculture, it should be taken into account that one of the reasons for sharp increase in figures of the years 1387 and 1390 is due to separation of Ferdows and Qayenat sub-provinces from Khorasan-e- Razavi province after the census and inclusion in South Khorasan province.
- ✓ In comparison of figures of Tehran province with the results of the 1382 National Census of Agriculture and the later surveys with the results of the livestock farms survey in 1390, it should be taken into account that Tehran province is separated into Tehran and Alborz provinces.
- ✓ In reviewing the amount of milk production, it should be taken into account that the share of buffalo and camel's milk in the total of national production of milk, based on the results of the 1382 National Census of Agriculture, was low and about 1.8 percent and was omitted from the objectives of Sample Survey on livestock farms due to prevention of increasing the volume of the sample.
- ✓ **Study of provincial estimates, specially on frequency of cattle& calves number, and comparison of this survey results with the outputs of the previous surveys and censuses shows the following:**
 - Review of changes in the number of cattle & calves (indigenous, hybrid and thoroughbred) in the nation shows that the number of indigenous and hybrid cattle, which are kept traditionally and in the households' place of living, is decreasing and the number of thoroughbred cattle & calves is increasing.

¹ . November

General characteristics of the Survey

Background

From the year 1339 through 1366, statistics and information for the livestock units' activities as Rural Agricultural Surveys along with other information in agricultural sector were collected and published. After conducting National Census of Agriculture in the year 1367 and providing proper ground for taking thematic sample surveys on national livestock, livestock farming sample survey was taken in 1371 for the first time by using the frame of the National Census of Agriculture. After conducting the 1382 National Agricultural Census, the second, third and fourth Livestock surveys were conducted by using the frame of the 1384, 1387 and 1390 of Livestock survey.

Objectives of survey

The objective of the Livestock Survey is to estimate the statistical information on different areas such as "the number of livestock types", "the number of sold livestock for slaughtering", "milk production", and "quantity of feeds consumption" and "employees" for better understanding of different aspects in this sector.

Survey method

The survey was conducted based on a two-stage sampling method.

Statistical population

In this survey, statistical population includes all holdings with livestock units' activities (raising of sheep & lambs, goats & kids, cattle & calves, buffalos & calves and camels& calves) at the time of survey.

Statistical unit

In this survey, statistical unit is an agricultural holding with livestock units' activity, which at least has two heads of small livestock (sheep and goats) and/or at least one head of large livestock (cattle & calves, buffalos & calves and camels & calves).

Statistical frame

The sampling frame at the first stage includes the list of all cities and villages which had livestock units' activities according to the results of the 1382 National Census of Agriculture and information on the number of livestock by type at the day of survey.

The sampling frame of the second stage in the urban areas includes the list of all holdings which had livestock farming activities at the day of the 1382 National Census of Agriculture and in the rural areas it includes the list of all the holdings which had livestock units' activities at the day of the 1390 survey.

Sampling method

In this survey, a two-stage probability-stratified sampling method was used as follows:

With respect to the survey objectives and significant differences between sample units in terms of having livestock and its types at the first stage, these units were stratified according to the livestock

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unit variable. Due to a large skewness of distribution of this variable, the phase method was used for stratification.

Sampling units of the first stage were selected by simple random method without replacement to each stratum. The sampling units of the second stage were classified into two groups: large holders and small holders, according to significant difference of the number of livestock. Large holders were enumerated and sample small holders in all cities and the villages of the second group were selected by simple random method without replacement and in the villages of the first group they were selected systematically.

Estimation relative error

The relative error for estimation of livestock unit variable was 4.76 percent and for milk production was 10.48 percent in this survey and for total country.

Statistical date

Statistical date for some parts of data is the day of the survey and for other parts, is the past 365 days as of the survey date.

Survey Date

The survey date was from 3 to 26 of Day¹ 1390 for 21 working days.

Method of information / data collection

The needed information is collected by face to face interview with the holder or a member of his /her household for settled holders' households. For unsettled households, the information is collected by interview in case of availability of the unsettled holder, otherwise, by interview with the local informants.

Level of information dissemination

The results of this survey were published provincewide.

¹ . 23 December 2011 to 23 January 2012

Definitions and concepts

Agricultural activities

In the 1382 National Census of Agriculture, agricultural activities included farming, horticulture, greenhouse production, animal husbandry (livestock farming), traditional raising of poultry, raising of honeybee and raising of silkworm (in this enumeration, just animal husbandry was surveyed).

Livestock farming activity

It refers to raising of small and large livestock which may be done in a traditional or modern way.

Small livestock: refers to sheep & lambs and goats and kids.

Large livestock: refers to cattle & calves, buffalos& calves and camels& calves.

Agricultural holdings

All agricultural activities run by a single management are an "agricultural production unit" which is called "agricultural holding".

Holding with livestock

In this survey, each of agricultural holdings that has at least 2 heads of small livestock or one head of large livestock is called "holdings with livestock".

Agricultural holders

Refer to members of one or more household(s) (natural persons) or a public institute/ authorized company (legal persons) who exercise management control over the agricultural holding. The holder(s) has technical and economic responsibility for the holding as well as direct role in its profit and loss.

Holder with livestock

This term is used for a person who has at least 2 heads of small livestock or one head of large livestock on the day of enumeration and manages the holding alone or jointly. He/she has or contributes to technical and economic responsibility for the holding as well as direct role in its profit and loss.

Household

Persons living together in one residence, sharing their living expenses and eating together constitute a household.

Holder's household with livestock

Is a household, at least a member of whom has livestock on the day of enumeration based on the given conventional limits.

Settled holder

A natural person who has private holding within the limit of a village or a city of his own residence, or contributes to the management of one or more joint holdings with other households.

Unsettled holder

A natural person who lives in a city or a village other than the place of holding (in the sample city or village), regardless of having or not having a holding in the city or village of their own residence.

Authorized company / Public institute

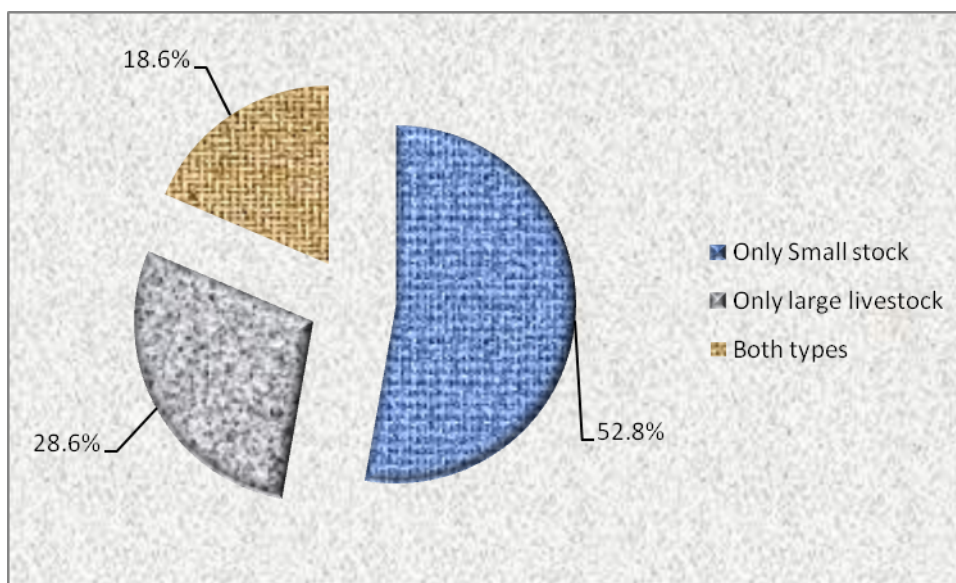
Authorized company refers to any kind of company which is established and registered legally as a company. Public institute is any kind of government organization or non-private institute (except companies).

Important Findings

Holdings with Livestock Activities

On the basis of the results of this survey in the winter 1390, there were 2363 thousand holdings with livestock activities in the country which had one of the kinds of livestock considered in this survey on the day of enumeration. Also, these results show that 52.8 and 28.6 percent of these holdings had only small livestock and only large livestock respectively and 18.6 percent had both kinds.

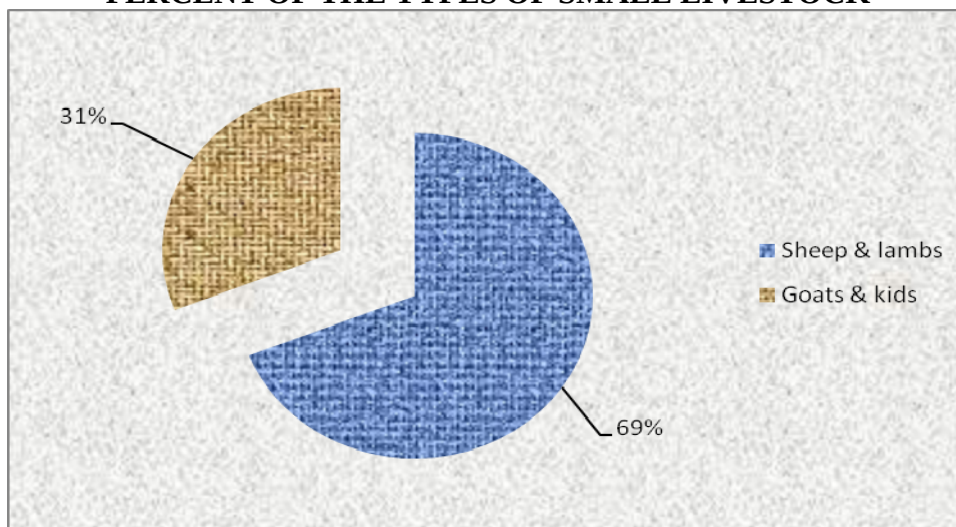
PERCENT OF HOLDINGS WITH LIVESTOCK IN THE COUNTRY



Holdings with small livestock

The results of this survey show that 1687 thousand holdings had small livestock on the day of enumeration which consisted of 50215 and 22094 thousand heads of sheep and lambs and goats respectively.

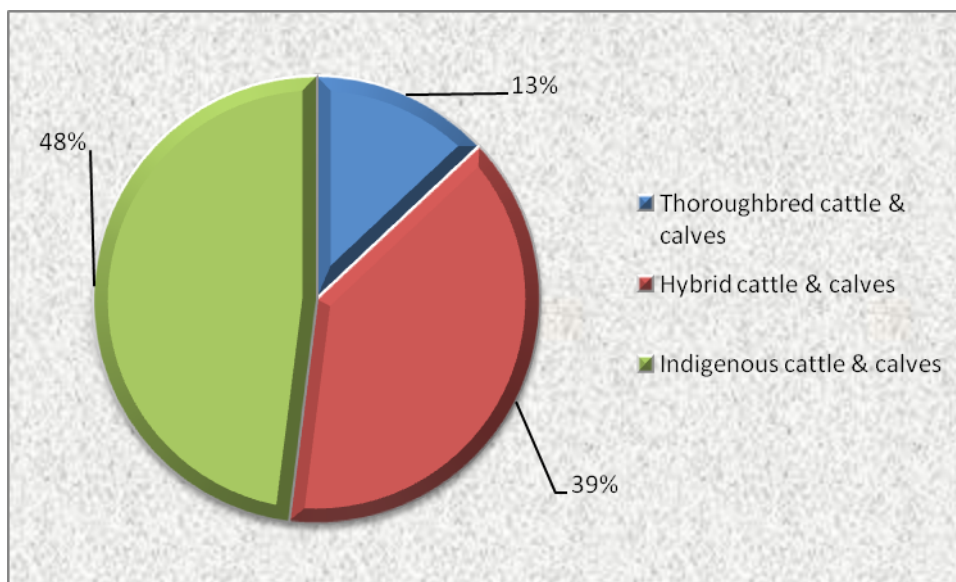
PERCENT OF THE TYPES OF SMALL LIVESTOCK



Holdings with cattle& calves

In this survey, there were a number of 1096 thousand holdings with cattle & calves on the day of enumeration which had 2361, 2911 and 804 thousand heads of indigenous cattle, hybrid cattle and thoroughbred cattle respectively.

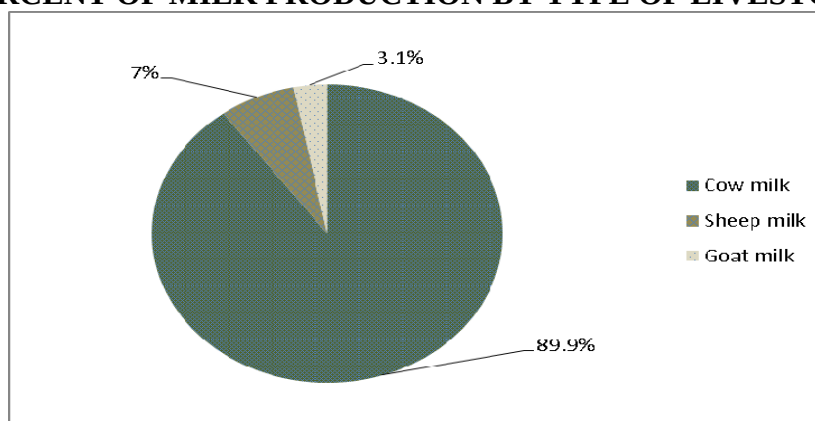
PERCENT OF CATTLE TYPES



Milk Production

As of holdings enumeration date, the amount of milk produced from cow, sheep and goat during the last 365 days was 6601 thousand tons, out of which 89.9, 7 and 3.1 percent was milk of cow, sheep and goat respectively.

PERCENT OF MILK PRODUCTION BY TYPE OF LIVESTOCK



Statistical Tables

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1. NUMBER OF HOLDINGS WITH LIVESTOCK ON THE ENUMERATION DAY AND THE NUMBER OF THEIR LIVESTOCK (holding)

Description	Total	Only small livestock	Only large livestock	Both small & large livestock
<i>Total country</i>	2363024	1248242	675806	438977

2. NUMBER OF HOLDINGS WITH SHEEP AND LAMBS ON THE ENUMERATION DAY AND THE NUMBER OF THEIR LIVESTOCK (holding- head)

Description	Number of holdings	Number of sheep and lambs on the enumeration day		
		Total		
		Sum	Female	Male
<i>Total country</i>	1277798	50214617	42496887	7717730

2. NUMBER OF HOLDINGS WITH SHEEP AND LAMBS ON THE ENUMERATION DAY AND THE NUMBER OF THEIR LIVESTOCK (continued) (holding- head)

Description	Number of sheep and lambs on the enumeration day					
	One-year old and over			Under one-year old		
	Sum	Female	Male	Sum	Female	Male
<i>Total country</i>	37803593	34608251	3195342	12411024	7888636	4522388

3. NUMBER OF HOLDINGS WITH GOATS & KIDS ON THE ENUMERATION DAY AND THE NUMBER OF THEIR LIVESTOCK (holding-head)

Description	Number of holdings	Number of goats & kids on the enumeration day			
		Total			
		Sum	Both sexes	Both sexes	Both sexes
<i>Total country</i>	1129427	22094251	18208079	3886172	

3. NUMBER OF HOLDINGS WITH GOATS & KIDS ON THE ENUMERATION DAY AND THE NUMBER OF THEIR LIVESTOCK (continued) (holding-head)

Description	Number of goats & kids on the enumeration day					
	One-year old and over			Under one-year old		
	Sum	Female	Male	Sum	Female	Male
<i>Total country</i>	16300634	14648744	1651891	5793616	3559335	2234281

4. NUMBER OF HOLDINGS WITH CATTLE ON THE ENUMERATION DAY AND THE NUMBER OF THEIR LIVESTOCK (holding-head)

Description	Number of holdings	Number of cattle & calves on the enumeration day		
		Total		
		Sum	Female	Male
<i>Total country</i>	1096303	6075772	4616020	1459752

4. NUMBER OF HOLDINGS WITH CATTLE ON THE ENUMERATION DAY AND THE NUMBER OF THEIR LIVESTOCK (continued) (holding-head)

Description	Number of cattle & calves on the enumeration day					
	Two years old and over			Under two years old		
	Sum	Female	Male	Sum	Female	Male
<i>Total country</i>	3654249	3268850	385399	2421522	1347170	1074353

5. AMOUNT OF MILK PRODUCTION IN HOLDINGS WITH LIVESTOCK BY TYPE OF LIVESTOCK (holding-head-ton)

Description	Total milk production	Cow			Sheep			Goat		
		Number of holdings	Number of milked cow	Milk production	Number of holdings	Number of milked sheep	Milk production	Number of holdings	Number of milked goat	Milk production
<i>Total country</i>	6600895	902613	2199657	5935994	632708	13910897	459843	583378	5868738	205059

6. AMOUNT OF LIVESTOCK FEED CONSUMED IN THE HOLDINGS WITH LIVESTOCK (ton)

Description	Oil seed cake	Corn silage	Straw	Dry weight of alfalfa, clover and sainfoin	Prepared concentrate
<i>Total country</i>	603609	3612484	13125691	8173785	2718105

6. AMOUNT OF LIVESTOCK FEED CONSUMED IN THE HOLDINGS WITH LIVESTOCK (continued) (ton)

Description	Barely	Bran	Dry beet pulp	Other
<i>Total country</i>	4977667	3366458	812637	2349865

7. AVERAGE NUMBER OF EMPLOYEES AND PAYMENTS PAID TO THE EMPLOYEES (person-thousand rilas)

Description	Paid employees		Number of unpaid employees
	Number	Paid salaries/ wages and other payments	
<i>Total country</i>	333551	8268409188	3777110