

สำมะโนการเกษตร พ.ศ. 2546
ภาคใต้

2003 AGRICULTURAL CENSUS
SOUTHERN REGION



สำนักงานสถิติแห่งชาติ

NATIONAL STATISTICAL OFFICE

กระทรวงเทคโนโลยีสารสนเทศและการสื่อสาร

MINISTRY OF INFORMATION AND COMMUNICATION TECHNOLOGY

PREFACE

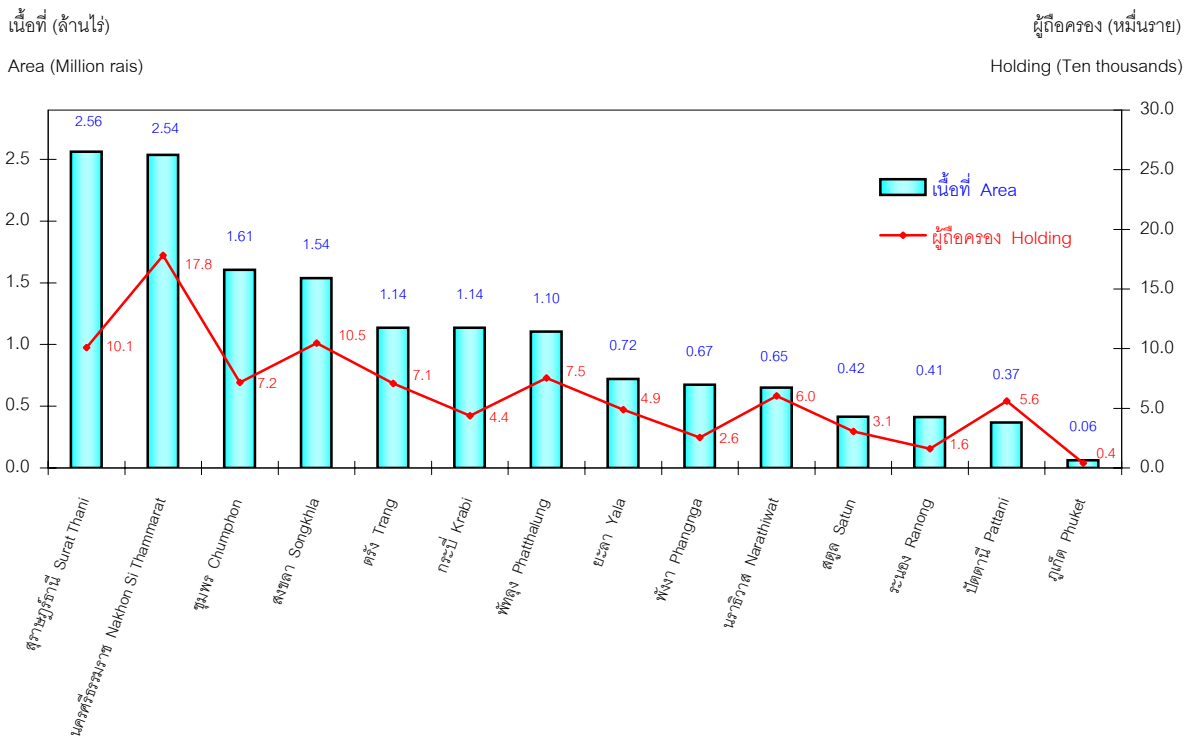
The National Statistical Office conducted the Fifth Agricultural Census in 2003 in order to collect the data on agricultural structure. The results obtained from the census are essential for both national and local policy-making, monitoring and evaluation of the agricultural development projects.

Preliminary report and advanced report of the 2003 Agricultural Census have been released. This report is one in the series of the final report in which the data by provinces, regions and the whole kingdom are presented.

National Statistical Office
Ministry of Information and Communication Technology

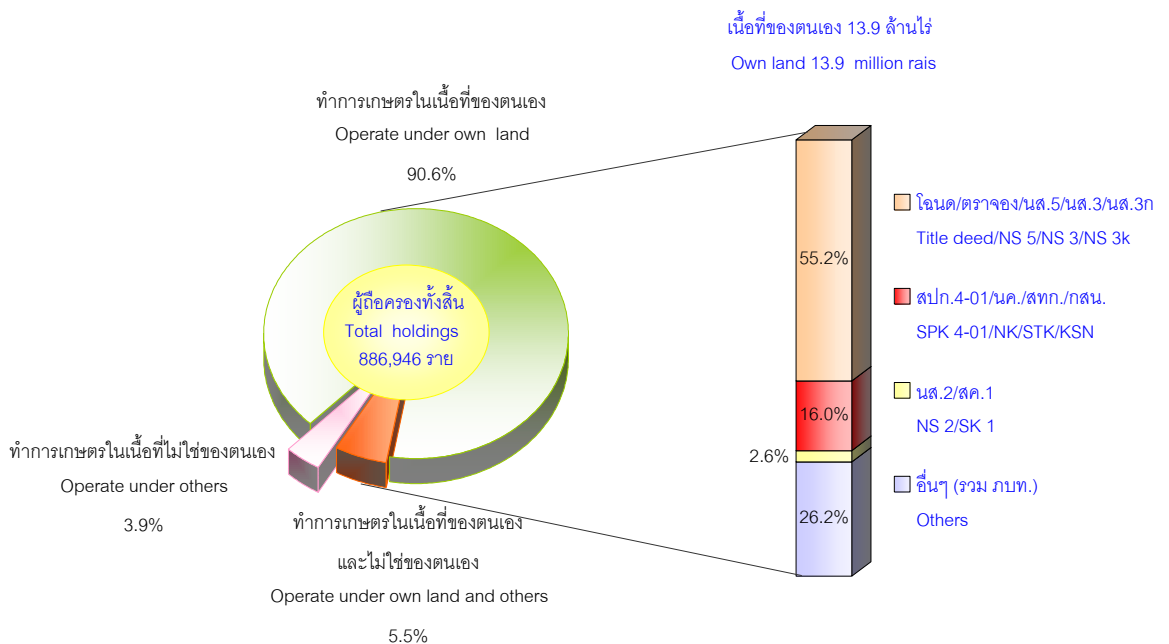
แผนภูมิ 1 จำนวนผู้ถือครอง และเนื้อที่ถือครองทำการเกษตร รายจังหวัด

Figure 1 Number and area of holdings by province



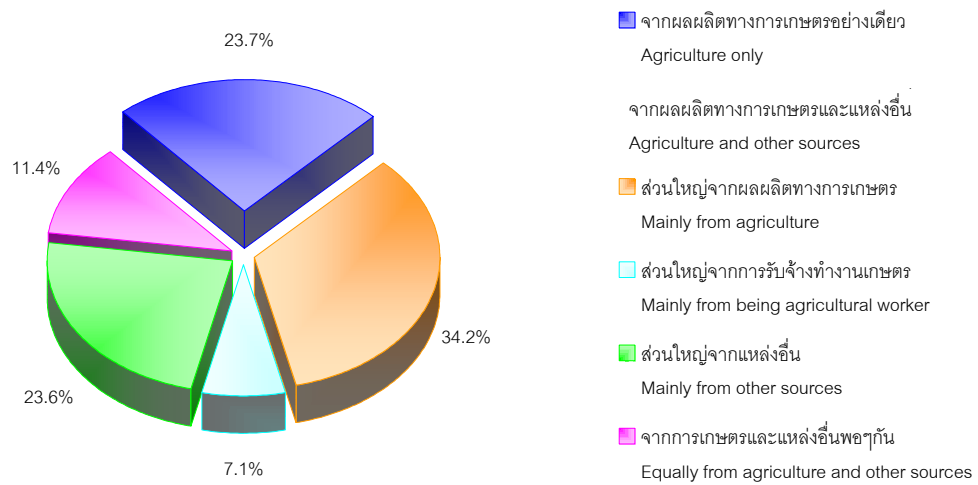
แผนภูมิ 2 จำนวนผู้ถือครองทำการเกษตร จำแนกตามลักษณะการถือครองที่ดิน และเนื้อที่ถือครองของตนเอง จำแนกตามเอกสารสิทธิ์

Figure 2 Number of holdings by land tenure and area owned by documentary of right



แผนภูมิ 3 จำนวนผู้ถือครองทำการเกษตร จำแนกตามแหล่งที่มาของรายได้ของครัวเรือน

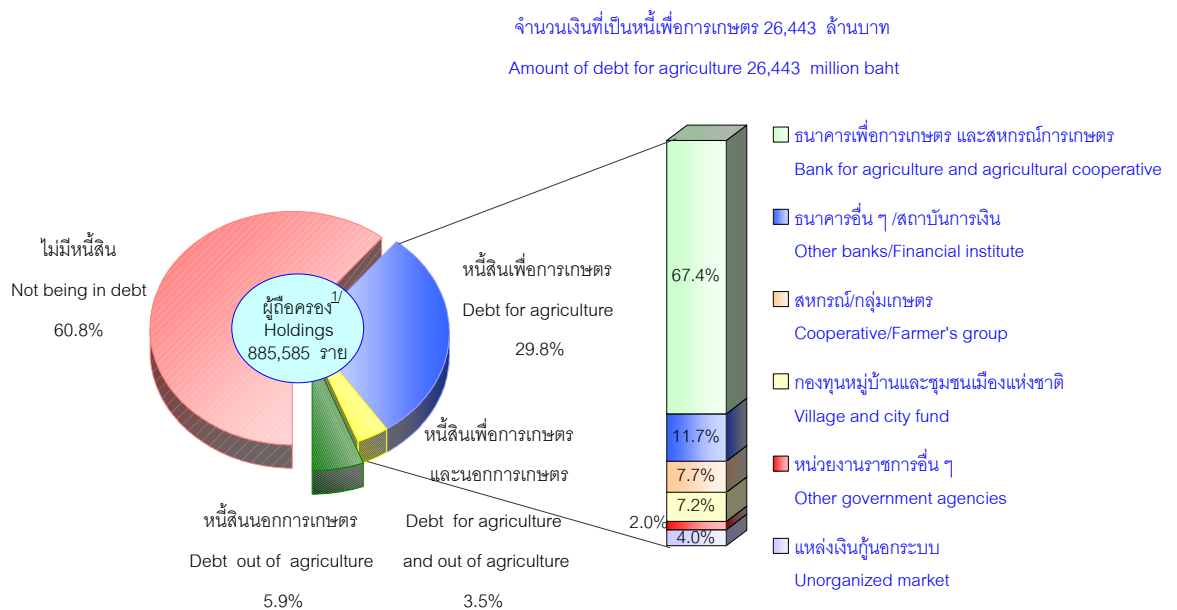
Figure 3 Number of holdings by source of household income



แผนภูมิ 4 จำนวนผู้ถือครองทำการเกษตร จำแนกตามการมีหนี้สินของครัวเรือน

และจำนวนเงินที่เป็นหนี้เพื่อการเกษตร จำแนกตามแหล่งเงินกู้

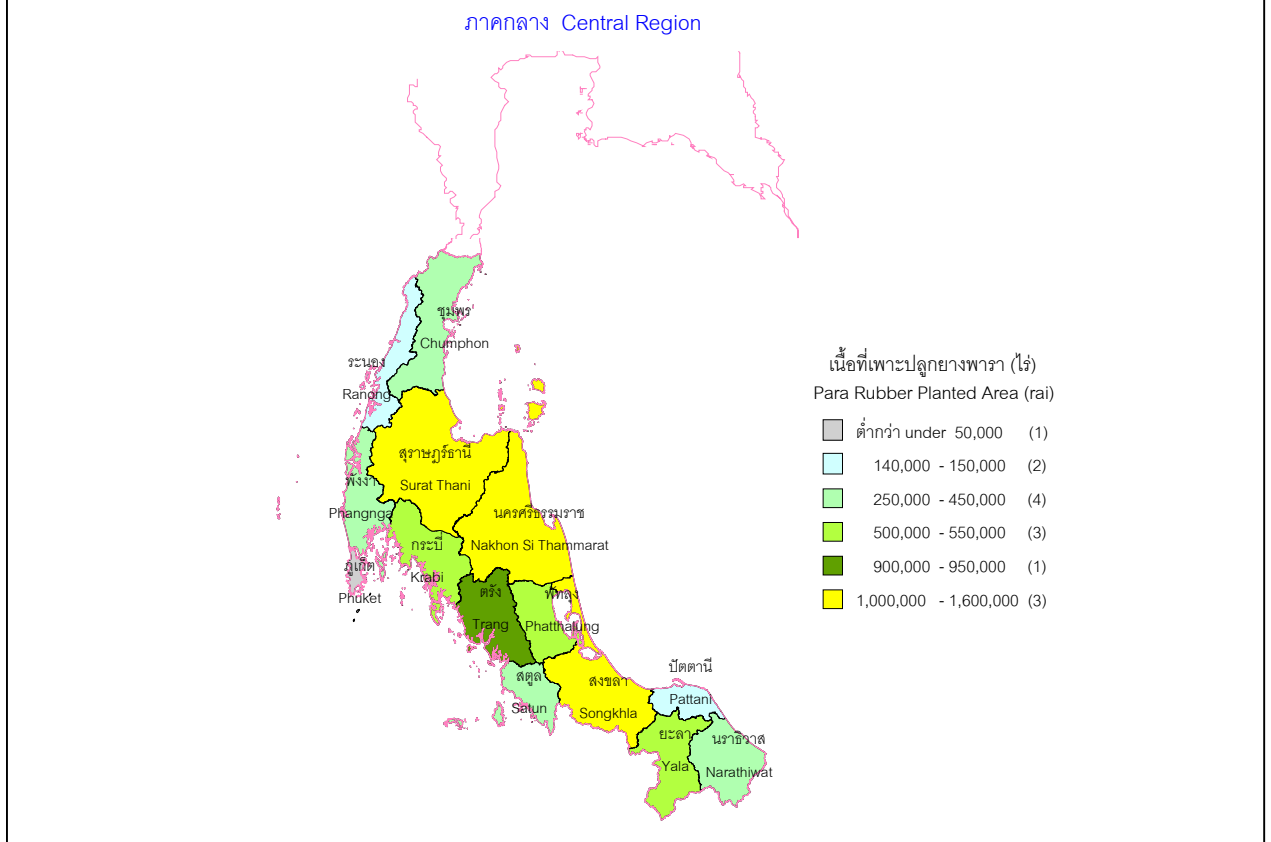
Figure 4 Number of holdings being in debt of household and amount of debt for agriculture by source of loan



^{1/} ไม่รวม บริษัท ห้างหุ้นส่วนนิติบุคคล
Excluding corporation

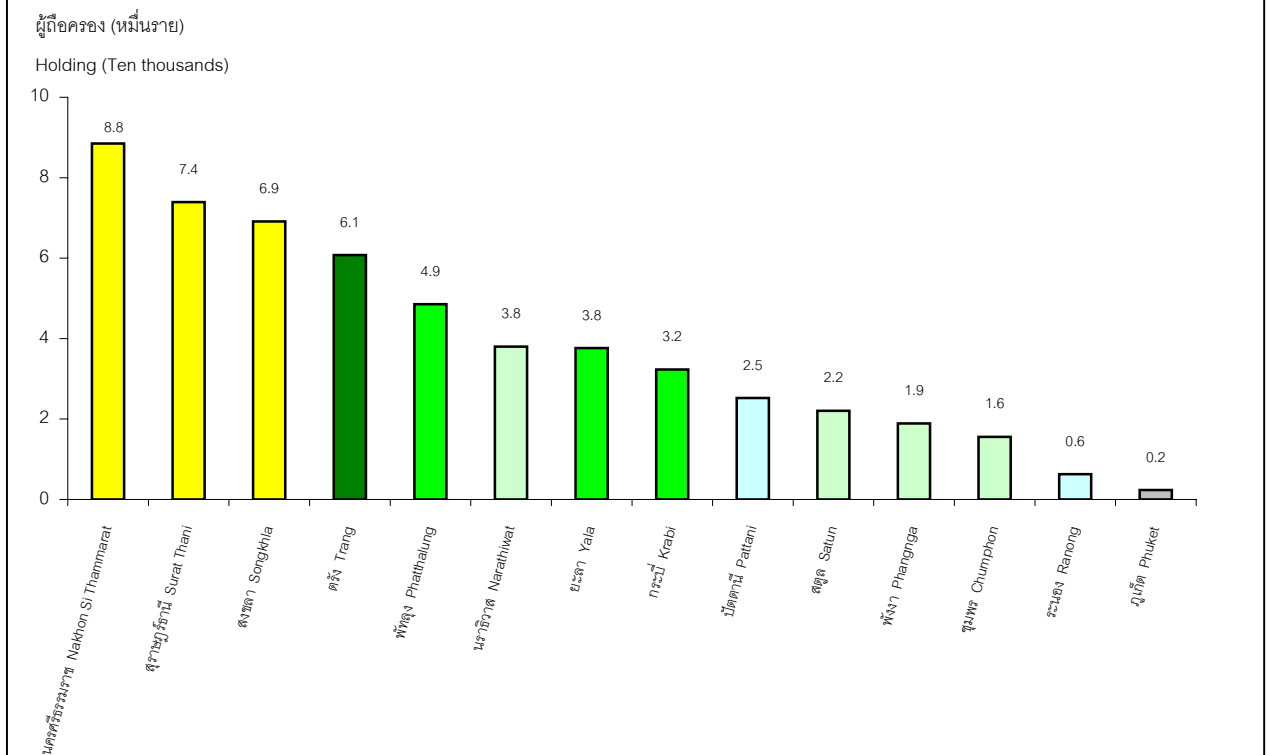
แผนภูมิ 5 เนื้อที่เพาะปลูกยางพารา รายจังหวัด

Figure 5 Para rubber : Planted area by province



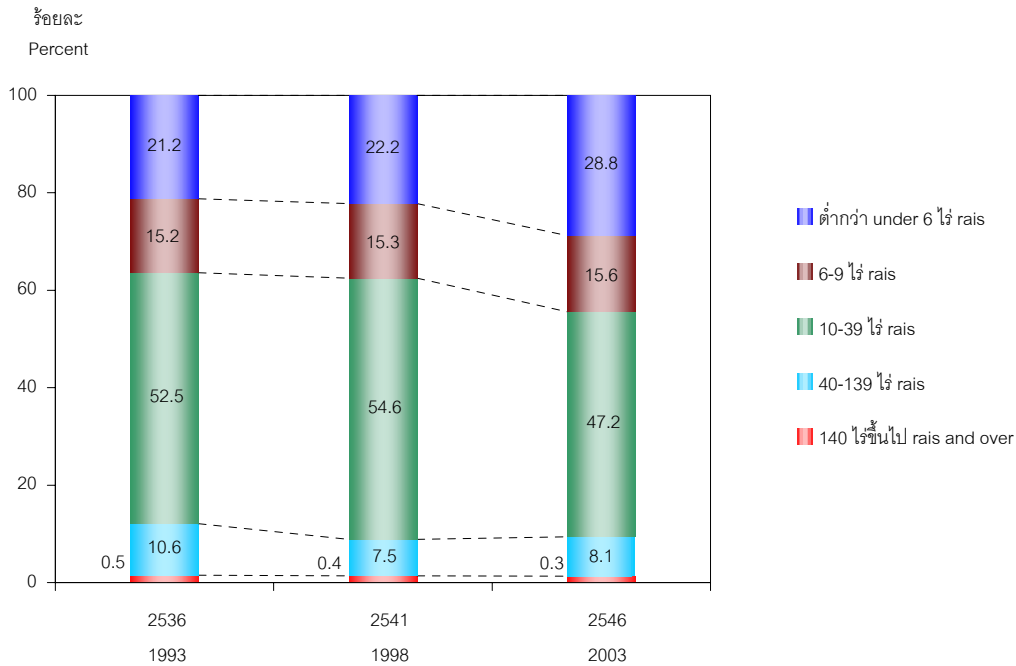
แผนภูมิ 6 จำนวนผู้ถือครองที่ปลูกยางพารา รายจังหวัด

Figure 6 Para rubber : Number of holdings by province



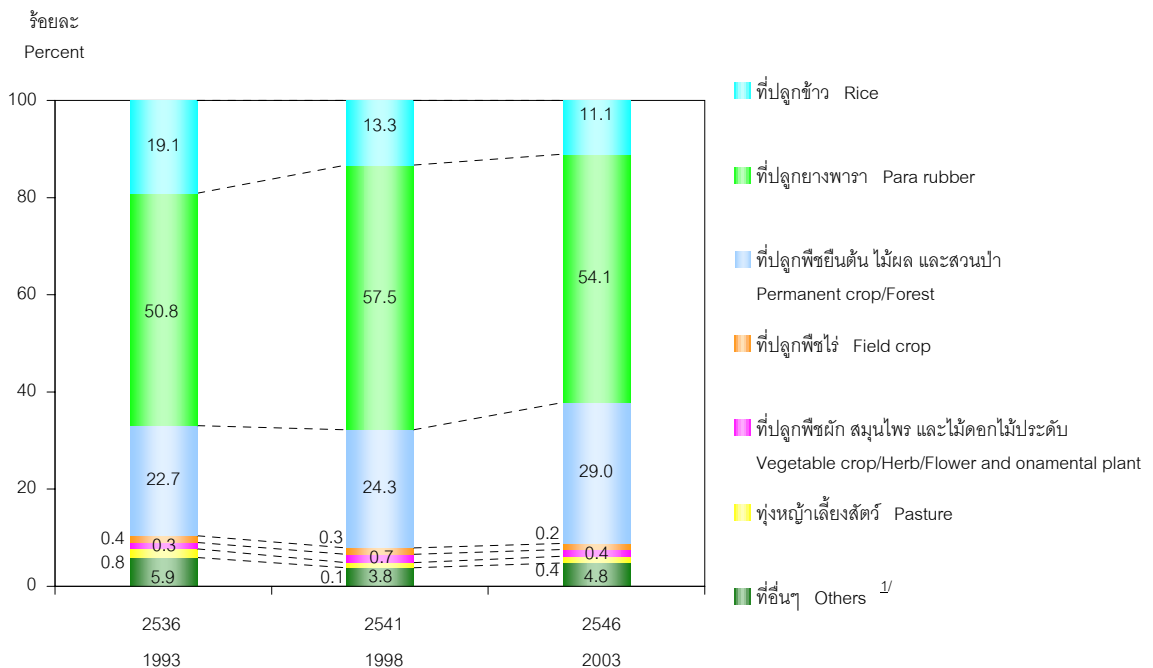
แผนภูมิ 7 จำนวนผู้ถือครองทำการเกษตร จำแนกตามขนาดเนื้อที่ถือครองทั้งสิ้น

Figure 7 Number of holdings by size of area of holding



แผนภูมิ 8 เนื้อที่ถือครองทำการเกษตร จำแนกตามการใช้ประโยชน์ที่ดิน

Figure 8 Area of holding by land use



^{1/} ปี 2546 รวมเนื้อที่เพาะเลี้ยงสัตว์น้ำในพื้นที่น้ำจืด (0.3%)
In 2003, including fresh water culture area (0.3%)

CHAPTER 1

INTRODUCTION

1.1 Background

The National Statistical Office conducted the First Agricultural Census in 1950, the Second in 1963, the Third in 1978 and the Fourth in 1993. To obtain timely statistics of agricultural structure data for policy-making, monitoring and evaluation of the agricultural development projects and in accordance with the recommendations of the Food and Agriculture Organization of the United Nations (FAO), the Fifth Agricultural Census was thus conducted in 2003.

1.2 Objective

The objectives of the agricultural census were as follows:

1. To collect data on agricultural structures such as number and area of holdings, land use, land tenure, planted area of crops, number of inland fishery establishments, water area under fresh water culture, number of livestock, the use of fertilizer and pesticide, machinery and equipment, etc.
2. To provide data for small administrative units.
3. To provide a frame for other agricultural surveys.
4. To study changes of agricultural structures in 10 years.

1.3 Coverage

The 2003 Agricultural Census covered all holdings which agricultural activity were cultivating crops, rearing livestock and culturing fresh water.

1.4 Definitions

1. Holding

A holding is an economic unit of agricultural production (cultivating crops, rearing livestock and culturing fresh water) under single management comprising all livestock kept and all land used wholly or partly for agricultural production purposes, without regard to title or legal form. The holding's land may consist of one or more parcels, located in one or more separate areas of the same province.

2. Holder

A holder refers to a civil or juridical person who exercises management control and takes major decisions over the agricultural holding operation. The holder has technical and economic responsibility for the holding and may undertake all responsibilities directly, or delegate responsibilities to a hired manager. A hired manager participating in economic and financial responsibilities in addition to managing the holding is considered a holder.

3. Area of Holding

Area of holding is the combined area of all the holding's parcels in the province, including land owned by the holder, rented from others and land under other tenure forms. (Land owned by the holder but rented to others are excluded).

The holding area includes farmyard, land occupied by farm buildings and holder's house located on the holding.

4. Land Tenure

This refers to the arrangements or rights under which the holder holds or uses holding land. A holding may be operated under one or more tenure forms as follows:

1) **Owned** : A holder is considered an owner of a piece of land if

(1) he, according to the law, has a full right in it, i.e. he possesses a land certificate such as title deed, NS 3, SK 1 which is issued by the authority concerned, he may have the right on the land which is resulted by the law or he may possess some certificates, according to the Land Reform Act, which legally permits him to operate the land; or

(2) he occupies and cultivates the land as if he were the owner as in the case of inheritance pending documentary evidence or pending the separation of the title deeds or other important documents; or

(3) he has occupied and cultivated the land continually without any resistance for 10 years and over.

2) **Rented** : A renter is one who rents the land from another person for agricultural operation and he has to pay rents to the land owner by cash or crop product.

3) **Mortgage** : A contract whereby a person, called the mortgagor, assigns a property to another person, called the mortgagee, as security for the performance of an obligation, without delivering the property to the mortgage.

4) **Sale with right of redemption** : A contract of sale whereby the ownership of the property sold passes to the buyer subject to an agreement that the seller can redeem that property.

5) **Others** : this refers to all types of tenure not covered by above forms.

4. The Census Day

This refers to May 1, 2003.

CHAPTER 2
CENSUS METHODOLOGY AND DATA PROCESSING

2.1 Census Methodology

A combination of complete and sample enumeration was applied for the 2003 Agricultural Census. In this method, the questionnaire was divided into two parts. The first part was used for collecting data on basic agricultural structure from all holdings whereas the second part was used for collecting other agricultural structure data from a 25% sample of holdings.

2.2 Method of Estimation

The estimate of the total number of each characteristic of holdings from the enumeration form was based on the formula :

- Province level

$$\hat{X}_{hi} = \sum_{j=1}^{m_{hi}} \sum_{k=1}^8 \frac{N_{hijk}}{n_{hijk}} \sum_{l=1}^{n_{hijk}} x_{hijkl}$$

Where x_{hijkl} is the number of characteristic X of the l^{th} sample holder, k^{th} size of total area of holding, j^{th} amphoe, i^{th} province, h^{th} region.

N_{hijk} is the total number of holders of the k^{th} size of total area of holding, j^{th} amphoe, i^{th} province, h^{th} region.

n_{hijk} is the total number of sample holders of the k^{th} size of total area of holding, j^{th} amphoe, i^{th} province, h^{th} region.

m_{hi} is the total number of amphoes in the i^{th} province, h^{th} region.

- Region level

$$\hat{X}_h = \sum_{i=1}^{A_h} \hat{X}_{hi}$$

Where A_h is the total number of provinces in the h^{th} region.

2.3 Data Collection

The face to face interview was the method of data collection for the 2003 Agricultural Census. The field work was carried out during May 13 to June 10, 2003. Around 25,000 enumerators were recruited from village health volunteers and 5,000 supervisors were recruited from local officer of Department of Agricultural Extension. The enumerators were sent out to interview all head of households using listing form to find out agricultural holders. Approximately 5.8 million agricultural holders were interviewed for detailed information using enumeration form subsequently.

2.4 Census Items

The data collected in the 2003 Agricultural Census are as follows :

- 1) Activity and legal status
- 2) Holding area by land use, land tenure and documentary of right
- 3) Livestock
- 4) Rice
- 5) Para rubber
- 6) Permanent crop and forest (planted)
- 7) Field crop
- 8) Vegetable crop, herb, flower and ornamental plant
- 9) Fresh water culture
- 10) Fertilizer and pesticide
- 11) Employment on holding
- 12) Machinery and equipment
- 13) Holder household's members and activity status
- 14) Education and membership of agricultural activity groups
- 15) Income and debt for agriculture of holder's household

Note ; Item 1) - 9) are basic agricultural structure data

Item 10) - 15) are other agricultural structure data

2.5 Data Processing

All filled questionnaires which had already been edited during the field operation were again examined by manual editing for completeness and consistency for all items in questionnaires including coding process for some items before sending to the central office. Then, all information was entered by image scanning system (ICR and OMR)^{1/}. Before tabulation were prepared, all raw data were edited by computer for final review and correction to ensure that data were all clean for further tabulation.

Publication of the census results are presented in three series ; Changwat, Region and Whole Kingdom.

2.6 Post Enumeration Survey

In July 2003, after the conclusion of census field work, a Post Enumeration Survey was carried out in order to evaluate the quality of the data by selecting 4% of the total enumeration areas. All enumerators were regular field staff officers of the National Statistical Office.

^{1/} ICR = Intelligence Characters Recognition

OMR = Optical Mark Reader

CHAPTER 3

SUMMARY OF FINDINGS

1. Number and Area of Holdings

The 2003 Agricultural Census show that the total number of holdings in the Southern Region was 886,946. Changwat Nakhon Si Thammarat occupied the largest number of holdings with 178,190 (20.1%). It was followed by Changwat Songkhla and Surat Thani with 104,532 and 100,938 (11.8 and 11.4% respectively). Phuket had the smallest number of holdings with 4,068 (0.5%)

With the total area of holding of around 14.9 million rais,^{1/} or about 4.7% of the total area of the country.^{2/} For the provincial area, Changwat Surat Thani and Nakhon Si Thammarat occupied the largest area of holding with 2.6 and 2.5 million rais (17.2 and 17.0% respectively), followed by Changwat Chumphon and Songkhla with 10.8 and 10.3% respectively and the smallest area in Changwat Phuket (0.4%). The average area per holding of the Southern Region was 16.8 rais, it showed a gradual decrease from 20.4 and 19.1 rais in 1993 and 1998 respectively.^{3/} The holding in Changwat Phangnga had the largest average area of 26.3 rais, and the smallest average area was in Changwat Pattani with 6.6 rais. (Figure 1)

2. Some Characteristics of Holdings

2.1 Size of Total Area of Holding

In the Southern Region, the number of holdings having an area under 10 - 39 rais constituted 47.2%, of which 28.8% were the holdings with area under 6 rais, while the largest size (140 rais and over) had only 0.3%.

From 1998 to 2003 the number of holdings in the Southern Region increased by 57,431 (6.9%). Especially the holdings with the smallest size (under 6 rais) which increased by 38.8 percent. (Table 1)

^{1/} 1 rai = 1,600 square meters.

^{2/} Total are of Thailand 320.7 million rais. (Royal Thai Survey Department).

^{3/} The 1993 Agricultural Census, the 1998 Intercensal Survey of Agriculture. (National Statistical Office).

Table 1 Number of Holdings by Size of Total Area of Holding

Size of total area of holding (rai)	Number of holdings			Percent			Percentage of change	
	1993	1998	2003	1993	1998	2003	1998/93	2003/98
Total	799,167	829,515	886,946	100.0	100.0	100.0	3.8	6.9
Under 6	169,073	184,242	255,633	21.2	22.2	28.8	9.0	38.8
6 – 9	121,857	126,995	137,810	15.2	15.3	15.6	4.2	8.5
10 – 39	419,380	452,772	418,876	52.5	54.6	47.2	8.0	-7.5
40 – 139	84,904	62,054	71,849	10.6	7.5	8.1	-26.9	15.8
140 and over	3,953	3,452	2,778	0.5	0.4	0.3	-12.7	-19.5

2.2 Land Tenure and Documentary of Right

As regards the land tenure, it was found that the majority of holdings operated under own land only (90.6%), 5.5% of the holdings operated not only under own land but also under other land and 3.9% of the holdings operated under other land. It was observed that the proportion of holdings of other land had a gradual increased from 1998. For the documentary of right, the data show that most of the holdings with own land had Title deed, NS 5, NS 3, NS 3k (71.7%). (Table 2)

Table 2 Number of Holdings with Land by Land Tenure and Documentary of Right

Item	Number of holdings			Percent			Percentage of change	
	1993	1998	2003	1993	1998	2003	1998/93	2003/98
Number of holdings with land	799,167	826,838	886,304	100.0	100.0	100.0	3.5	7.2
By land tenure								
Own land	650,491	751,276	802,916	81.4	90.9	90.6	15.5	6.9
Others	77,055	24,375	34,884	9.6	2.9	3.9	-68.4	43.1
Own land and others	71,621	51,187	48,504	9.0	6.2	5.5	-28.5	-5.2
By documentary of right^{1/} (own land only)								
Title deed/ NS5/ NS3/ NS3k			610,576			71.7		
SPK 4-01/ NK/ STK/ KSN			121,392			14.3		
NS2/ SK1			31,212			3.7		
Others			200,672			23.6		

^{1/} One holding may report more than one type of documentary of right.

In 1993 and 1998, no question about documentary of right in the questionnaire.

3. Area of Holding by Land Use, Land Tenure and Documentary of Right

The total area of holding in the Southern Region was 14.9 million rais. Of these, the major portion (54.1%) was the area under Para rubber, followed by permanent crop / forest (29.0%), rice (11.1%) respectively.

From 1998 to 2003 the total area of holding in the Southern Region decreased by 930,905 rais (5.9%). Of which decreased in the area under para rubber and rice, while the area under permanent crop / forest and pasture had increased. Considering land tenure, it was found that the major portion (93.3%) was the area owned by the holder which most of them had Title deed, NS 5, NS 3, NS 3k (55.2%). (Table 3)

Table 3 Area of Holding by Land Use, Land Tenure and Documentary of Right

Item	Area (rai)			Percent			Percentage of Change	
	1993	1998	2003	1993	1998	2003	1998/93	2003/98
Total area of holding	16,271,276	15,856,984	14,926,079	100.0	100.0	100.0	-2.5	-5.9
By land use								
Rice	3,115,470	2,102,747	1,650,454	19.1	13.3	11.1	-32.5	-21.5
Para rubber	8,266,595	9,114,911	8,081,061	50.8	57.5	54.1	10.3	-11.3
Permanent crop / Forest	3,692,216	3,857,868	4,321,651	22.7	24.3	29.0	4.5	12.0
Field crop	59,877	48,350	23,790	0.4	0.3	0.2	-19.3	-50.8
Vegetable crop / Herb / Flower and Ornamental plant	48,493	110,871	63,652	0.3	0.7	0.4	128.6	-42.6
Pasture	126,586	22,233	59,255	0.8	0.1	0.4	-82.4	166.5
Fresh water culture ^{1/}			46,765			0.3		
Others	962,039	600,004	679,451	5.9	3.8	4.5	-37.6	13.2
By land tenure								
Own land	12,742,300	14,964,800	13,932,908	78.3	94.4	93.3	17.4	-6.9
Others	3,528,976	892,184	993,171	21.7	5.6	6.7	-74.7	11.3
By documentary of right^{2/} (own land only)			13,932,908			100.0		
Title deed/ NS5/ NS3/ NS3k			7,700,383			55.2		
SPK 4-01/ NK/ STK/ KSN			2,224,101			16.0		
NS2/ SK1			359,157			2.6		
Others			3,649,267			26.2		

^{1/} In 2003, including fresh water culture in the coverage.

^{2/} In 1993 and 1998, no question about documentary of right in the questionnaire.

4. Fertilizer and Pesticide

Out of a total 852,849 holdings with crops in the Southern Region, 80.8% used fertilizers. Most of them (77.8%) using inorganic fertilizers, of which the holdings using inorganic fertilizers only was 58.4%, while 19.4% of holdings used inorganic and organic fertilizers. There was very small number of holdings using only organic fertilizers (3.0%). The average quantity used of inorganic fertilizers was 47.9 kg./rai which decreased 5.3% from 1998. However, the number of holdings using inorganic fertilizers only decreased by 9.0% from 1998.

Considering the use of pesticides, 32.4% of holdings reported of using pesticides, of which 26.0% used chemical. (Table 4)

Table 4 Number of Holdings with Crops by Using Fertilizer and Pesticide, and Area Treated and Quantity Used Inorganic Fertilizer

Item	Number			Percent			Percentage of change	
	1993	1998	2003	1993	1998	2003	1998/93	2003/98
1. Number of holdings with crops	782,892	824,977	852,849	100.0	100.0	100.0	5.4	3.4
By using fertilizer								
Not use fertilizer	145,312	150,235	163,483	18.6	18.2	19.2	3.4	8.8
Use fertilizer	637,580	674,742	689,366	81.4	81.8	80.8	5.8	2.2
Inorganic	484,967	547,185	498,181	61.9	66.3	58.4	12.8	-9.0
Organic	15,695	11,798	25,384	2.0	1.4	3.0	-24.8	155.2
Inorganic and organic	136,918	115,759	165,801	17.5	14.1	19.4	-15.5	43.2
By using pesticide								
Not use pesticide	507,494	521,865	576,401	64.8	63.3	67.6	2.8	10.5
Use pesticide ^{1/}	275,398	303,112	276,448	35.2	36.7	32.4	10.1	-8.8
Chemical			221,332			26.0		
Organic			22,038			2.6		
Natural-enemies			8,710			1.0		
Others			52,737			6.2		
2. Area treated inorganic fertilizer (rai)	9,899,315	9,962,455	10,529,046				0.6	5.7
3. Quantity used inorganic fertilizer (1,000 kg.)	412,359	503,757	504,249				22.2	0.1
Average per rai (kg.)	41.7	50.6	47.9				21.3	-5.3

^{1/} One holding may report more than one method of using pesticide.

In 1993 and 1998, no question about method of using pesticide in the questionnaire.

5. Demographic Characteristics and Activity Status

Table 5 indicates that 69.9% of holders were male and only 30.1% were female. However, the proportion of female holders increased 13.8% from 1998. Most of them (83.3%) in the age group of 35 years and over. Out of this, 66.9% in the age group 35 - 64 years and 16.4% in the age group 65 years and over, which the proportion of the holders in this group increased by 2.2% from 1998.

Table 5 Number of Holders by Sex and Age Group

Item	Number			Percent			Percentage of change	
	1993	1998	2003	1993	1998	2003	1998/93	2003/98
Total number of holders (Excluding corporation)	798,744	829,134	885,585	100.0	100.0	100.0	3.8	6.8
By sex								
Male	660,078	693,719	619,115	82.6	83.7	69.9	5.1	-10.8
Female	138,666	135,415	266,470	17.4	16.3	30.1	-2.3	96.8
By age group								
Under 25 years	16,956	8,404	10,561	2.1	1.0	1.2	-50.4	25.7
25 – 34 years	132,541	100,634	137,179	16.6	12.1	15.5	-24.1	36.3
35 – 44 years	204,867	200,858	222,491	25.7	24.2	25.1	-2.0	10.8
45 – 54 years	185,578	222,691	215,766	23.2	26.9	24.4	20.0	-3.1
55 – 64 years	158,036	178,644	154,088	19.8	21.6	17.4	13.0	-13.7
65 years and over	100,766	117,903	145,500	12.6	14.2	16.4	17.0	23.4

There were 3.2 million holder's household members or 37.6% of total population in the Southern Region, of which 52.8% were male and 47.2% were female. The average number of members was 3.6 persons. It showed a gradual decrease from 4.1 persons in 1993 and 1998. The dependency ratio^{1/} was 44.0%. It was observed that, the higher in age groups the less in number of members, which member under 25 years old constituted the largest group with 34.0% while member 65 years and over were the smallest with 8.1%.

Regarding the activity status of holder's household members aged 10 years and over, it was found that 74.1% engaged in agricultural work on the holding, among these 37.6% engaged in agricultural work only on the holding and 36.5% engaged both in agricultural work on the holding and other works. While 6.7% of members did not engage in agricultural work on the holding. It was found that the member engaged in agricultural work only on the holding had an downward tendency from 49.7, 47.7 to 37.6% in 1993, 1998 and 2003 respectively. (Table 6)

^{1/} Dependency ratio = $\frac{\text{Number of population aged under 15 years and 60 years and over}}{\text{Number of population aged 15 – 59 years}} \times 100$

Table 6 Number of Holder's Household Members by Sex, Age Group and Activity Status

Item	Number			Percent			Percentage of change	
	1993	1998	2003	1993	1998	2003	1998/93	2003/98
1. Total number of holder's household members (Excluding corporation)	3,293,853	3,375,918	3,196,255	100.0	100.0	100.0	2.5	-5.3
Average per household	4.1	4.1	3.6				0.0	-12.2
By sex								
Male	1,636,843	1,711,538	1,687,548	49.7	50.7	52.8	4.6	-1.4
Female	1,657,010	1,664,380	1,508,707	50.3	49.3	47.2	0.4	-9.4
By age group								
Under 25 years	1,557,739	1,522,294	1,087,059	47.3	45.1	34.0	-2.3	-28.6
25 – 34 years	502,446	444,956	685,558	15.2	13.2	21.4	-11.4	54.1
35 – 44 years	450,276	469,490	497,009	13.7	13.9	15.6	4.3	5.9
45 – 54 years	337,128	418,398	401,416	10.2	12.4	12.6	24.1	-4.1
55 – 64 years	262,212	300,571	265,651	8.0	8.9	8.3	14.6	-11.6
65 years and over	184,052	220,209	259,562	5.6	6.5	8.1	19.6	17.9
2. Number of holder's household members 10 years of age and over	2,571,642	2,650,463	2,875,489	100.0	100.0	100.0	3.1	8.5
By activity status								
Economically active	2,159,757	2,042,149	2,324,008	84.0	77.1	80.8	-5.4	13.8
Engaged in agricultural work on the holding only	1,279,058	1,263,221	1,081,964	49.7	47.7	37.6	-1.2	-14.3
Engaged in agricultural work on the holding and other works	714,533	633,478	1,048,871	27.8	23.9	36.5	-11.3	65.6
Mainly engaged in agricultural work on the holding	314,217	251,734	458,194	12.2	9.5	15.9	-31.3	82.0
Mainly engaged in agricultural work on other holdings	98,488	94,908	154,682	3.8	3.6	5.4	-3.6	63.0
Mainly engaged in other works	301,828	286,836	435,995	11.8	10.8	15.2	-5.0	52.0
Not engaged in agricultural work on the holding	166,166	145,450	193,173	6.5	5.5	6.7	-12.5	32.8
Mainly engaged in agricultural work on other holdings	13,744	6,184	26,363	0.6	0.2	0.9	-55.0	326.3
Mainly engaged in other works	152,422	139,266	166,810	5.9	5.3	5.8	-8.6	19.8
Not economically active	411,885	608,314	551,481	16.0	22.9	19.2	47.7	-9.3

6. Income and Debt of Holder's Household

There were 23.7% of holders who had household income from agriculture only, while 76.3% from agriculture and other sources. It was observed that the proportion of holders who had household income from agriculture only decreased nearly 50% from 1998. This indicates that most of the holder's household did not rely only on income from agriculture but also on income from other sources. Regarding income from agricultural product of holding. It was found that the holders 33.5% have income from agricultural product in 20,001 - 50,000 baht, followed by income in 50,001 - 100,000 and 10,001 - 20,000 with 18.3 and 16.5% respectively. (Table 7)

Table 7 Number of Holders by Household Income

Item	Number			Percent			Percentage of change	
	1993	1998	2003	1993	1998	2003	1998/93	2003/98
Total number of holders (Excluding corporation)	798,524	829,132	885,585	100.0	100.0	100.0	3.8	6.8
By source of household income								
Agriculture only	357,535	408,539	209,509	44.8	49.3	23.7	14.3	-48.7
Agriculture and other sources	440,989	420,593	676,076	55.2	50.7	76.3	-4.6	60.7
Mainly from agriculture	174,159	185,715	303,091	21.8	22.4	34.2	6.6	63.2
Mainly from being agricultural worker	42,170	42,192	62,552	5.3	5.1	7.1	0.1	48.3
Mainly from other sources	178,975	169,306	209,213	22.4	20.4	23.6	-5.4	23.6
Equally from agriculture and other sources	45,685	23,380	101,220	5.7	2.8	11.4	-48.8	332.9
By income from agricultural product^{1/}								
Not having agricultural product	28,903	35,006	39,071	3.6	4.2	4.4	21.1	11.6
Having agricultural product (baht)	769,621	794,126	846,514	96.4	95.8	95.6	3.2	6.6
Under 5,001	109,652	54,217	63,876	13.8	6.6	7.2	-50.6	17.8
5,001 - 10,000	189,968	109,685	97,022	23.8	13.2	10.9	-42.3	-11.5
10,001 - 20,000	182,294	138,711	146,220	22.8	16.7	16.5	-23.9	5.4
20,001 - 50,000	196,568	277,087	296,290	24.6	33.4	33.5	41.0	6.9
50,001 - 100,000	64,622	149,958	161,688	8.1	18.1	18.3	132.1	7.8
100,001 and over	26,517	64,468	81,418	3.3	7.8	9.2	143.1	26.3

^{1/} Value of agricultural product

According to debt of household, there were 33.3% of the holders being in debt for agriculture. The amount of debt for agriculture of the Southern Region was 26,443 million baht, which increased by 9.7% (2,341 million baht) from 1998. The average per household in debt was 89,772 baht. Most of the holders being in debt (67.4%) borrowed from Bank for agriculture and agricultural cooperative. It should be notice that there were 7.2% from village and city fund which was established recently by the government. (Table 8)

Table 8 Number of Holders by Being in Debt for Agriculture
and Amount of Debt for Agriculture by Source of Loan

Item	Number			Percent			Percentage of change	
	1993	1998	2003	1993	1998	2003	1998/93	2003/98
1. Total number of holders (Excluding corporation)	798,522	829,132	885,585	100.0	100.0	100.0	3.8	6.8
By being in debt for agriculture								
Not being in debt	561,117	561,455	591,028	70.3	67.7	67.7	0.1	5.3
Being in debt	237,405	267,677	294,557	29.7	32.3	33.3	12.8	10.0
2. Amount of debt for agriculture (million baht)	12,728	24,102	26,443	100.0	100.0	100.0	89.4	9.7
By source of loan								
Bank for agriculture and agricultural cooperative	7,156	17,491	17,826	56.2	72.6	67.4	144.4	1.9
Other banks / Financial institute	3,176	3,218	3,092	25.0	13.3	11.7	1.3	-3.9
Cooperative / Farmer's group	1,239	2,212	2,033	9.7	9.2	7.7	78.5	-8.1
Village and city fund ^{1/}			1,931			7.2		
Other government agencies ^{2/}		381	517		1.6	2.0		35.7
Unorganized market	1,157	800	1,044	9.1	3.3	4.0	-30.9	30.5
Middleman	195	56	134	1.5	0.2	0.5	-71.3	139.3
Money lender	195	97	254	1.5	0.4	1.0	-50.3	161.9
Relative / Neighbour / Others	767	647	656	6.1	2.7	2.5	-15.6	1.4
Average per household in debt (baht)	53,613	90,041	89,772				67.9	-0.3
Average per total households (baht)	15,939	29,069	29,859				82.4	2.7

^{1/} In 1993 and 1998, no question about village and city fund in the questionnaire.

^{2/} In 1993, no question about other government agencies in the questionnaire.

7. Employment on Agricultural Workers

In Southern Region, there were 29.3% of the total holdings employed agricultural workers, of which most of them employed workers on an occasional basis. The data show that only 10.9% of the total holdings employed permanent agricultural workers with 254,208 persons, among these 9.0% were the foreigner workers. (Table 9)

Table 9 Number of Holdings by Employment and Number of Permanent Workers

Item	Number			Percent			Percentage of change	
	1993	1998	2003	1993	1998	2003	1998/93	2003/98
1. Total number of holdings	798,938	829,134	886,855	100.0	100.0	100.0	3.8	7.0
Not employ agricultural workers	540,252	569,072	627,395	67.6	68.6	70.7	5.3	10.2
Employ agricultural workers	258,686	260,062	259,460	32.4	31.4	29.3	0.5	-0.2
Permanent workers	27,064	66,718	58,284	3.4	8.1	6.6	146.5	-12.6
Occasional workers	209,926	176,815	162,803	26.3	21.3	18.4	-15.8	-7.9
Permanent and occasional workers	21,696	16,529	38,373	2.7	2.0	4.3	-23.8	132.2
2. Number of permanent workers	276,013	209,813	254,208	100.0	100.0	100.0	-24.0	162.1
By sex								
Male	86,459	123,997	147,593	31.3	59.1	58.1	43.4	163.6
Female	189,554	85,816	106,615	68.7	40.9	41.9	-54.7	159.9
By source of workers^{1/}								
Thai			231,203			91.0		
Foreigner			23,005			9.0		

^{1/} In 1993 and 1998, no question about source of permanent workers in the questionnaire.