



# EXECUTIVE SUMMARY 2013 AGRICULTURAL CENSUS

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National Statistical Office (NSO)

EE 460: Thai Economy

Semester 1/2018

Faculty of Economics, Thammasat University

# 2013 Agricultural Census

- National Statistical Office (NSO) conducted the First Agricultural Census in 1950 1963 1978 1993 and 2003, respectively.
- Agricultural Census takes place every 10 years with the recommendations of the Food and Agriculture Organization of the United Nations (FAO).
- National Statistical Office (NSO) conducted the 2013 Agricultural Census which is the sixth round of its series.
- The census aims to provide basic information on the structure of agriculture at administrative units and that information over ten years provides as a guideline for developing agricultural policies and plans as well as monitoring agricultural development for both national and local levels.

# 2013 Agricultural Census

- For this census round, the data collection fieldwork was involved by the 15,000 agricultural volunteers at village level and the 3,000 agricultural extension officers and the NSO provincial staff; they were sent out to interview all agricultural holdings throughout the country.
- The census fieldwork was carried out during May 2013 by using a portable device (Tablet). The findings are as following.

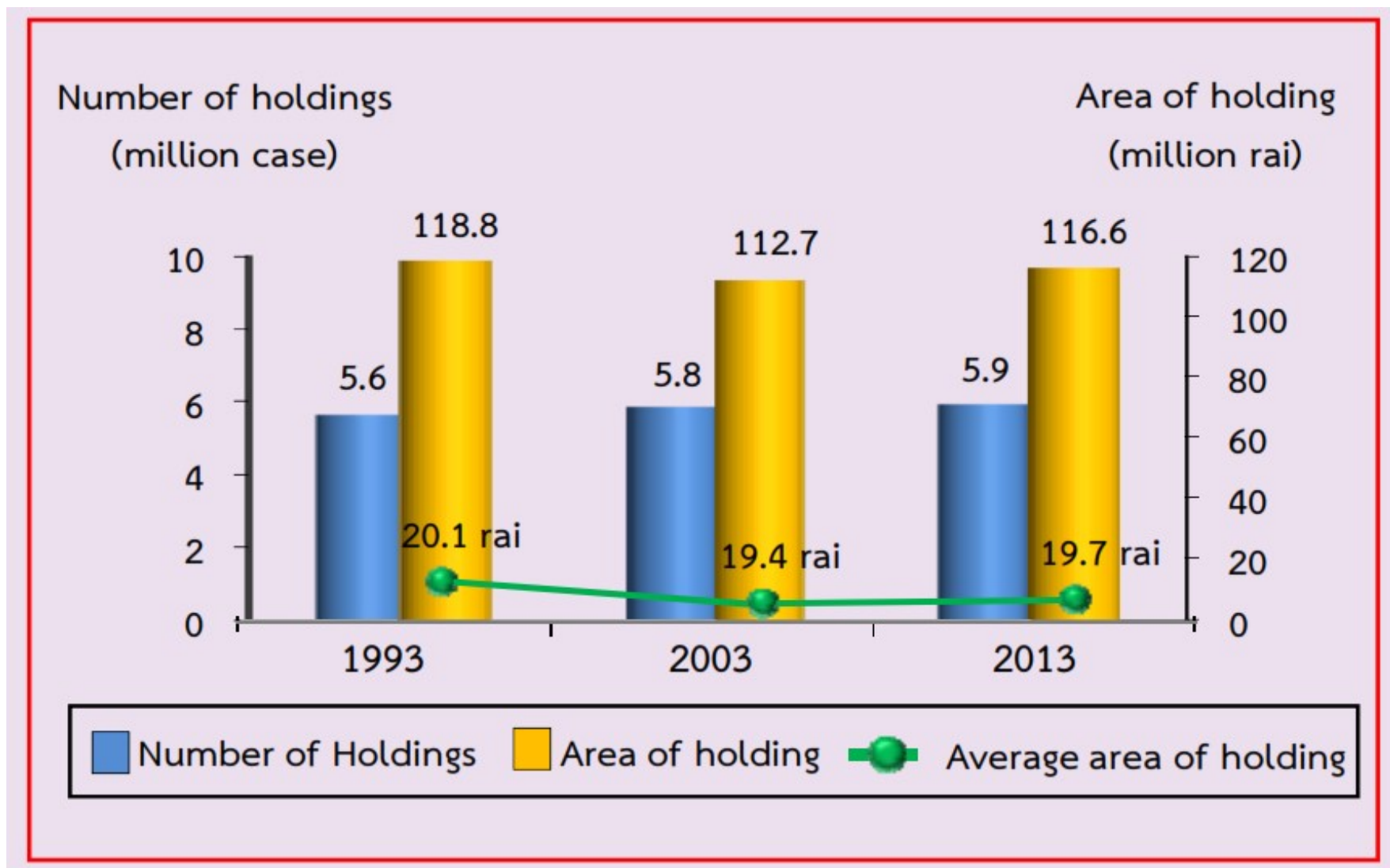
# 2013 Agricultural Census

- Considering to the average area of holding, it was found that Central Region, which had the least number of holdings, had the highest of the average area of holding 23.1 rais.
- This was followed by the Northern Region and the Northeastern Region (21.2 and 19.9 rais respectively), while the Southern Region had the lowest of the average area of holding was 14.6 rais.
- Considering changes of agricultural holding during the past 10 years, the number of holdings and the area of holding increased from 5.8 to 5.9 million members (1.7%) and from 112.7 to 116.6 million rais (3.5%), the average area of holding were 19.4 and 1.97 rais respectively.

## Number and area of holdings by region (2013)

Region	Number of (million case)		Area of holding (million rai)		Average area of holding  (rai)
	number	%	number	%	
Whole Kingdom	5.9	100	116.6	100	19.7
Central	0.9	14.3	19.6	16.8	23.1
Northern	1.3	22.0	27.5	23.6	21.2
Northeastern	2.7	46.4	54.6	46.8	19.9
Southern	1.0	17.3	14.9	12.8	14.6

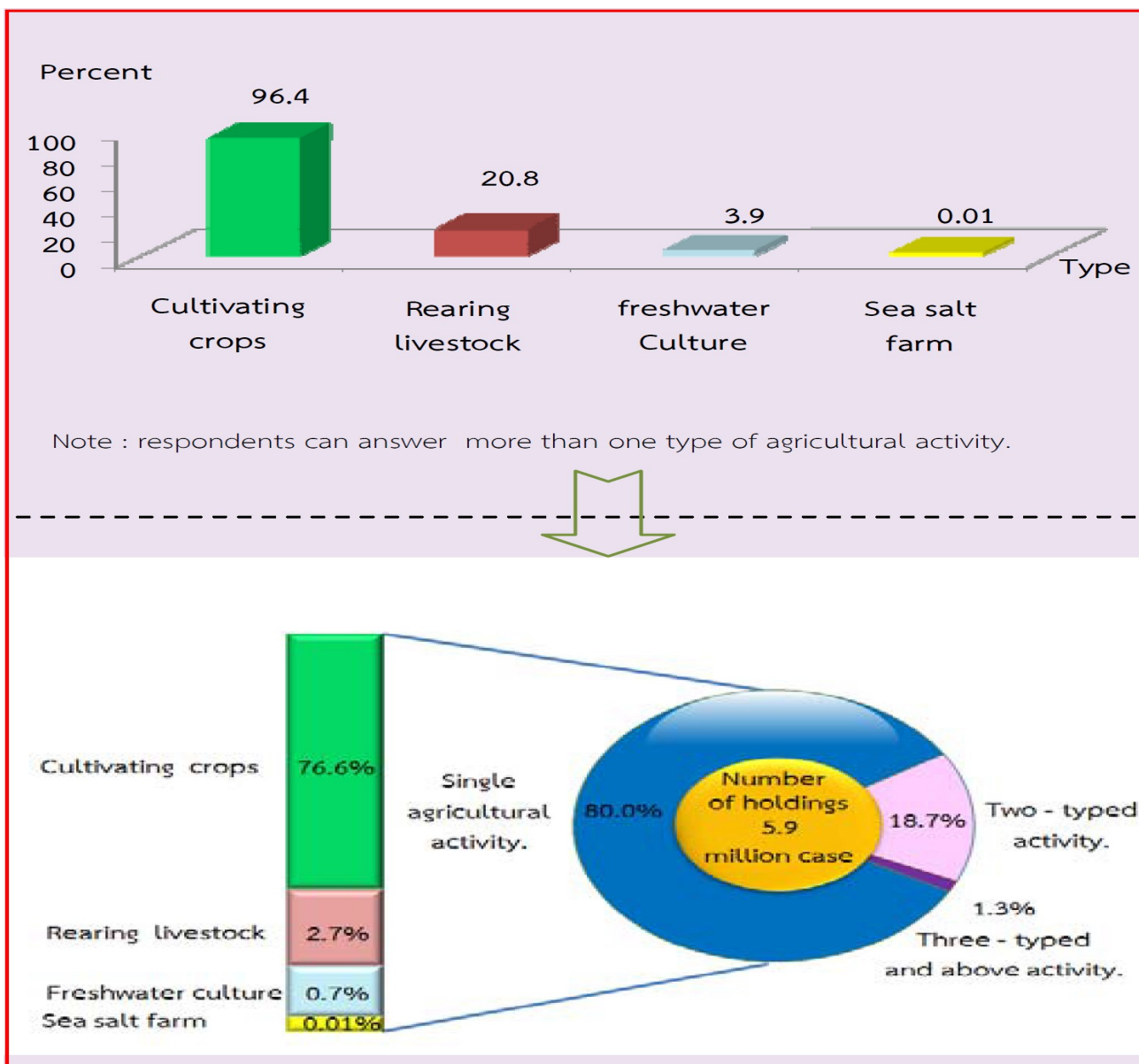
# Comparing number and area of holdings (1993-2013)



# 2013 Agricultural Census

- Most of agricultural holdings 5.9 million members (96.4%) are cultivating crops. Of this number, about 19.8 % was also operated with the other type agricultural activities such as livestock, freshwater culture or sea salt farm.
- The agricultural holders that cultivated single agricultural up to 80.0 % with cultivating crops, rearing livestock, freshwater culture or sea salt farm. Each activity, might operate with a variety of crops or a variety of livestock.
- The two - typed activity of agricultural holdings was found 18.7 %, while the holdings of three - typed and above of agricultural activity was found only 1.3 %.

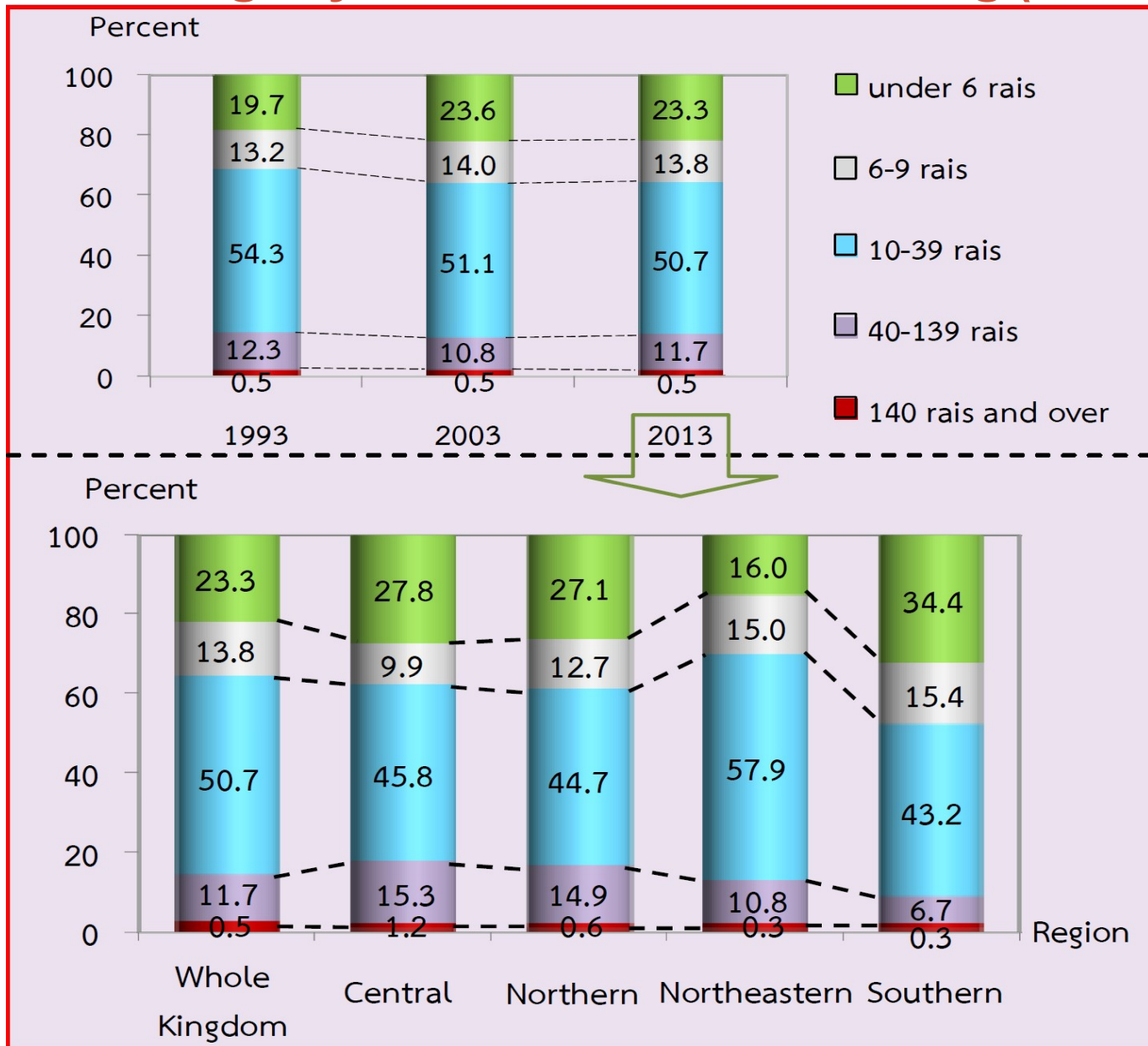
# Number of holdings by type of agricultural activity (2013)



# 2013 Agricultural Census

- The majority of agricultural holders in Thailand (87.8%) had an area less than 40 rais. There was only 0.5 % having area 140 rais and over.
- During the past 10 years, the number of holdings significant increased by 96,888 members (1.7 %) due to the increasing of the holdings of area 40-139 rais (by 0.9%).
- The holdings of the small to medium size of area, which were lower than 6 rais, 6 – 9 rais and 10 – 39 rais, decreased by 0.3, 0.2 and 0.4 percent respectively.
- The majority of holdings in all regions occupied the area of 10 – 39 rais, Northeastern Region holding was accounted for 57.9 %. Followed by the Southern region, the area of lower than 6 rais was found the most (34.4%). The highest proportion of the holding of area 140 rais and over was found in Central (1.2%).

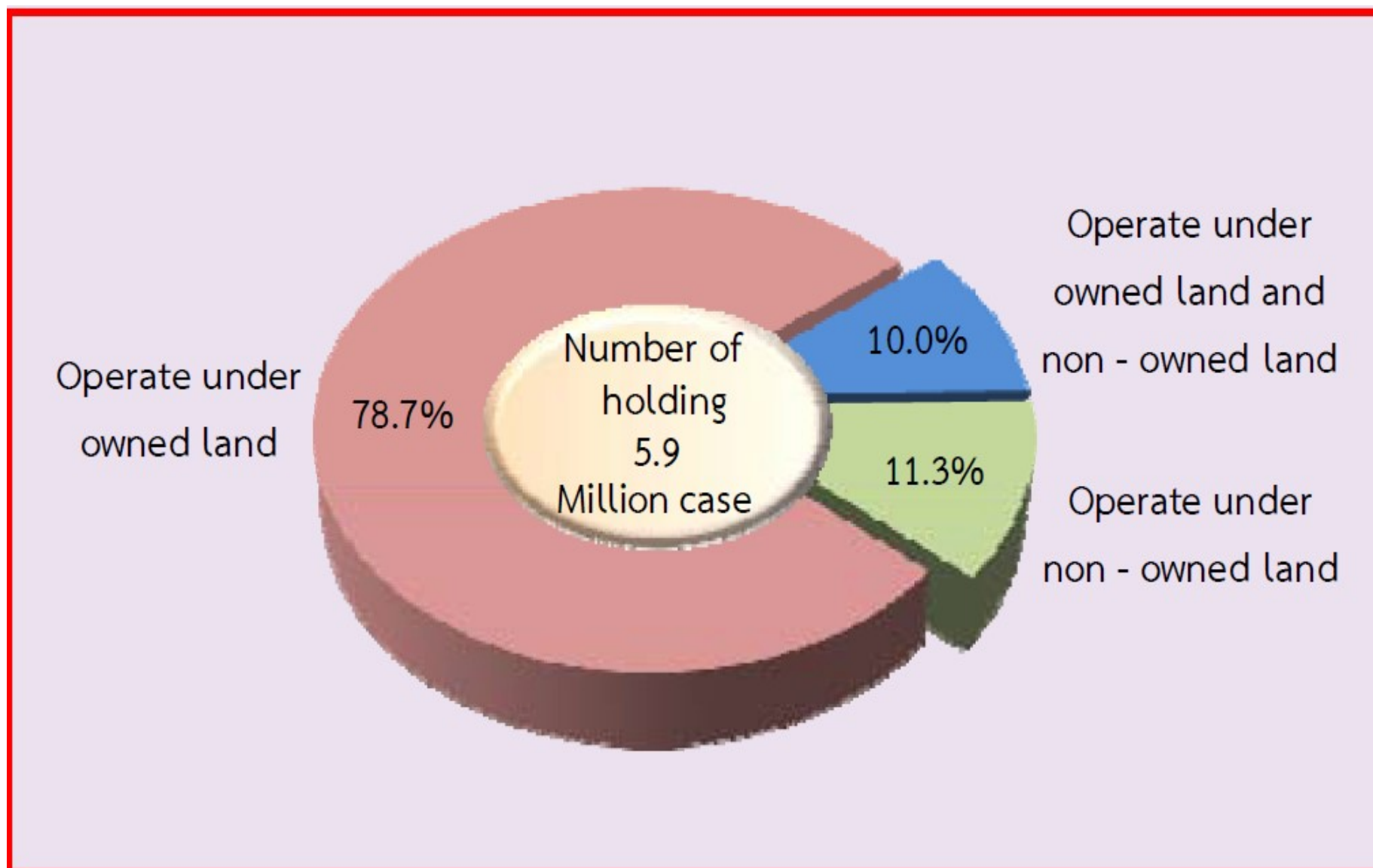
# Number of holdings by size of total area of holding (1993 – 2013)



# 2013 Agricultural Census

- The majority of holdings operated solely under owned land (78.7%), the holdings operated under both owned land and non owned land was about 10.0 %. The rest 11.3 % was the holdings operated under non - owned land.

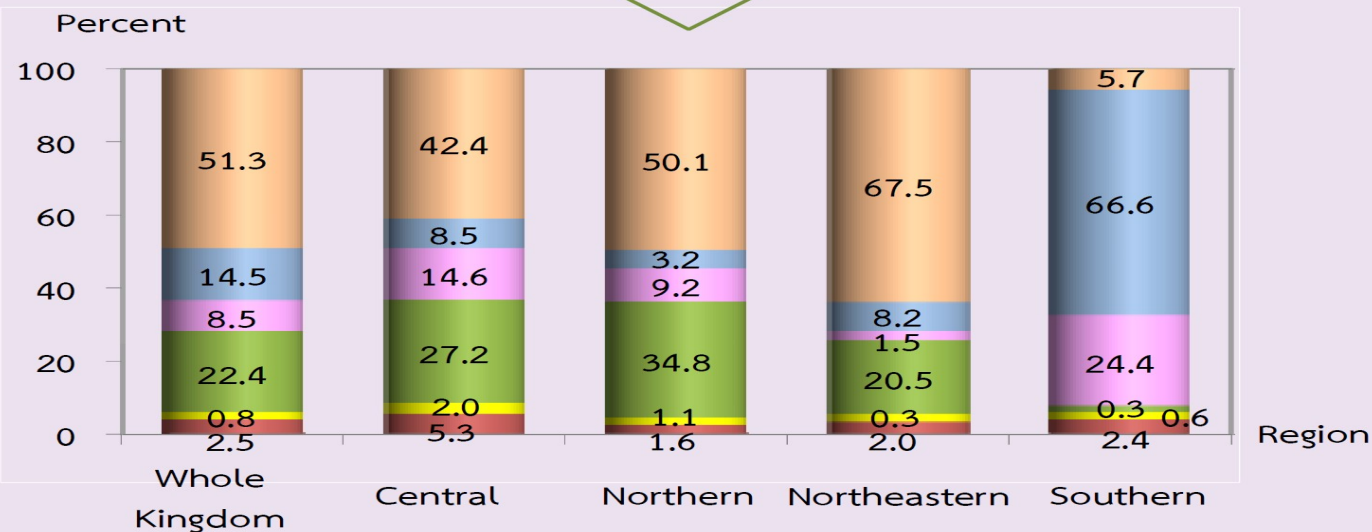
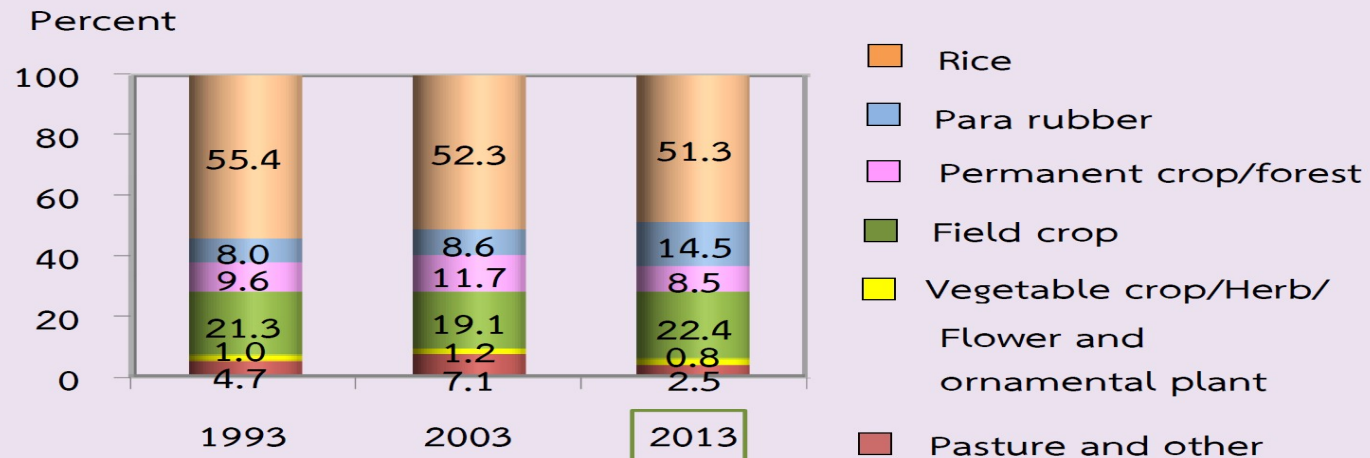
## Number of holdings with land by land tenure (2013)



# 2013 Agricultural Census

- The total area of holding 116.6 million rais, the area under rice was about 51.3%, followed by field crop (22.4%), para rubber (14.5%) and permanent crops/ forest (8.5%) respectively.
- During the past 10 years, the area of para rubber and field crops grew significantly. The area under rice and permanent crops/forest was decrease.
- The major use of agricultural land in Northeastern, Northern and Central Region was for rice (42.4 and 67.5%), followed by field crops (20.5 and 34.8%). While Southern Region was mainly used for para rubber (66.6%)

# Comparing area of holding by land use (1993-2013)



# 2013 Agricultural Census

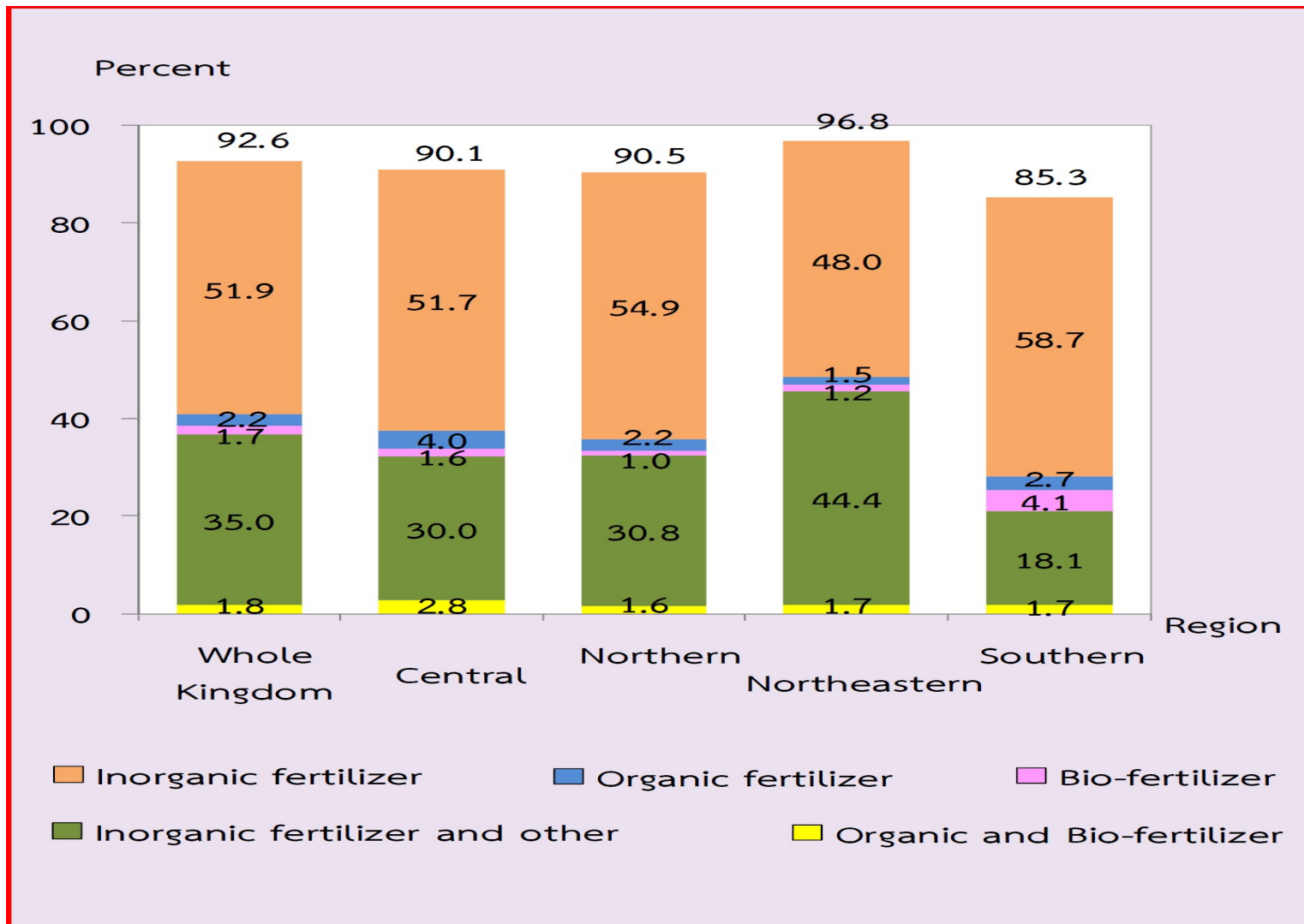
- The majority of agricultural holdings (92.6%) used fertilizer. Most of them (86.9%) used inorganic fertilizer. By 51.9 % used only inorganic fertilizer. However, the use of organic fertilizer only and the used of bio-fertilizer only were found only 2.2 and 1.7 percent respectively
- Considering the fertilizer use from 2003 to 2013, the holdings used fertilizer increasingly from 90.2 % to 92.6 %, inorganic fertilizer only had decreased from 56.8 % to 51.9 %. The average number of using inorganic fertilizer per rai increasingly from 41.8 to 57.3 kg. per rai.

## Number of holdings by using fertilizer (1993-2013)

Item	1993	2003	2013
1. Number of holdings with crop	5,516,301 (100%)	5,582,336 (100%)	5,653,311 (100%)
Not using fertilizer	845,031 (15.3)	549,269 (9.8)	420,249 (7.4)
Use fertilizer	4,671,270 (84.7)	5,033,067 (90.2)	5,233,063 (92.6)
Inorganic	2,542,020 (46.1)	3,172,492 (56.8)	2,932,086 (51.9)
Organic	174,082 (3.2)	155,646 (2.8)	123,690 (2.2)
Bio	*	*	96,773 (1.7)
Inorganic and other	1,955,168 (35.4)	1,704,929 (30.6)	1,977,004 (35.0)
Organic and bio	*	*	103,510 (1.8)
2. Area treated inorganic fertilizer (rai)	83,276,755	97,283,204	108,920,345
3. Quantity used inorganic fertilizer (1,000 kg.)	2,825,809	4,066,325	6,242,144
Average per rai (kg.)	33.9	41.8	57.3

Note \* In 1993 and 2003, did not collect about bio-fertilizer.

## Number of holdings by using fertilizer by region (2013)



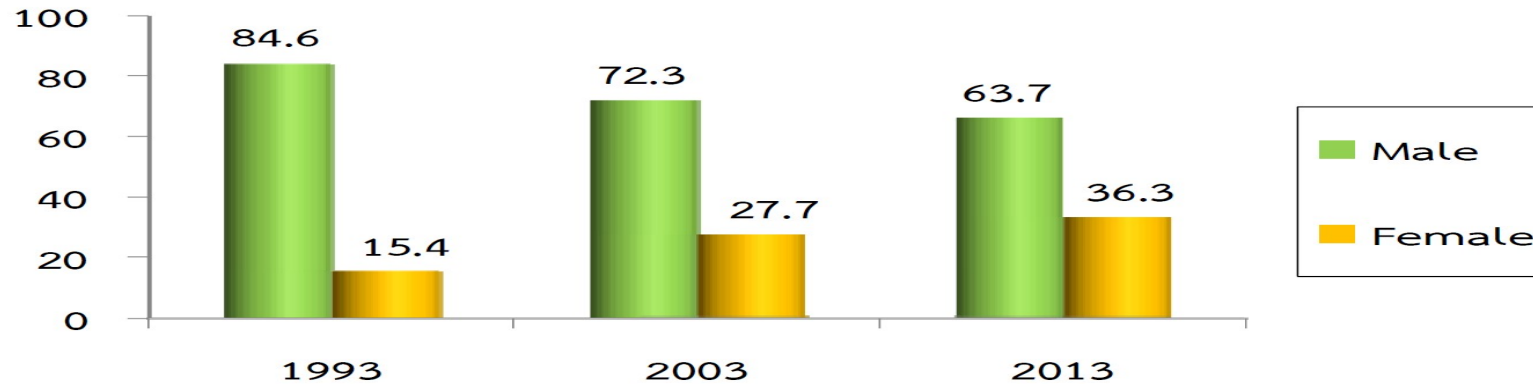
- Northeastern region is the highest using fertilizer of the agricultural holders around 96.8% and the use of inorganic fertilizers up to 92.4%

# 2013 Agricultural Census

- Around 63.7 % of private agricultural holders were male, and the rest 36.3 % were female.
- During 2003 to 2013, the proportion of male holders decreased from 72.3 % to 63.7 % respectively, while the proportion of female holders increased from 27.7% to 36.3 %.
- Considering by age group of holders, most of holders had aged 35 years and over, however, during 2003 to 2013 holders aged 35 - 44 years continued to decrease from 26.8 % to 18.4 %. It was also observed the increase for the proportion of the holders aged 65 years and over from 13.1 % to 18.5 %.

# Number of holders by sex and age group (1993-2013)

Number of holders (Excluding corporation)  
(Per cent)



Item	1993	2003	2013
Total number of holders	5,644,339 (100%)	5,808,128 (100%)	5,905,714 (100%)
by age group			
Under 25 years	99,756 (1.8)	51,300 (0.9)	34,313 (0.6)
25 - 34 years	961,786 (17.0)	749,568 (12.9)	306,140 (5.2)
35 - 44 years	1,603,257 (28.4)	1,553,799 (26.8)	1,088,389 (18.4)
45 - 54 years	1,364,877 (24.2)	1,628,863 (28.0)	1,834,958 (31.1)
55 - 64 years	1,047,098 (18.5)	1,064,851 (18.3)	1,545,605 (26.2)
65 years and over	567,565 (10.1)	759,747 (13.1)	1,096,316 (18.5)

# 2013 Agricultural Census

- The members of agricultural households in Thailand, there were totally 19.7 million members (30.4 %). The proportion of female was higher than male, 51.4 % and 48.6 % respectively.
- The household size was averagely 3.3 persons, which decreased from 3.8 persons in year 2003.
- Considering by age of members, The group of members aged 45 years and over increased from 29.9 % in 2003 to 43.9 % in 2013.

## Number of holder's household members by sex and age group (1993 - 2013)

Item		1993	2003	2013
Total number of holder's household member (Excluding corporation)		23,972,524 (100%)	21,955,875 (100%)	19,678,956 (100%)
Average per household		4.2	3.8	3.3
<b>By sex</b>				
Male		11,912,444 (49.7)	11,221,247 (51.1)	9,570,702 (48.6)
Female		12,060,080 (50.3)	10,734,628 (48.9)	10,108,254 (51.4)
<b>By age group</b>				
Under	25 years	10,887,668 (45.4)	7,400,824 (33.7)	5,075,570 (25.8)
25	– 34 years	4,054,933 (16.9)	4,233,436 (19.3)	2,628,988 (13.4)
35	– 44 years	3,577,277 (14.9)	3,746,418 (17.1)	3,329,791 (16.9)
45	– 54 years	2,521,839 (10.5)	3,121,284 (14.2)	3,702,502 (18.8)
55	– 64 years	1,793,138 (7.5)	1,893,534 (8.6)	2,766,543 (14.1)
65	years and over	1,137,669 (4.8)	1,560,379 (7.1)	2,175,562 (11.0)

# 2013 Agricultural Census

- The activity status of the household members aged 10 years and over, around 86.2 % engaged in the economically activities. By this, 75.6 % engaged with agricultural activity in their holdings. Among these 47.0 % engaged in agricultural work only on the holding and 28.6 % engaged both in agricultural work on the holding and other works, while 10.6 % of members did not engage in agricultural work on the holding.

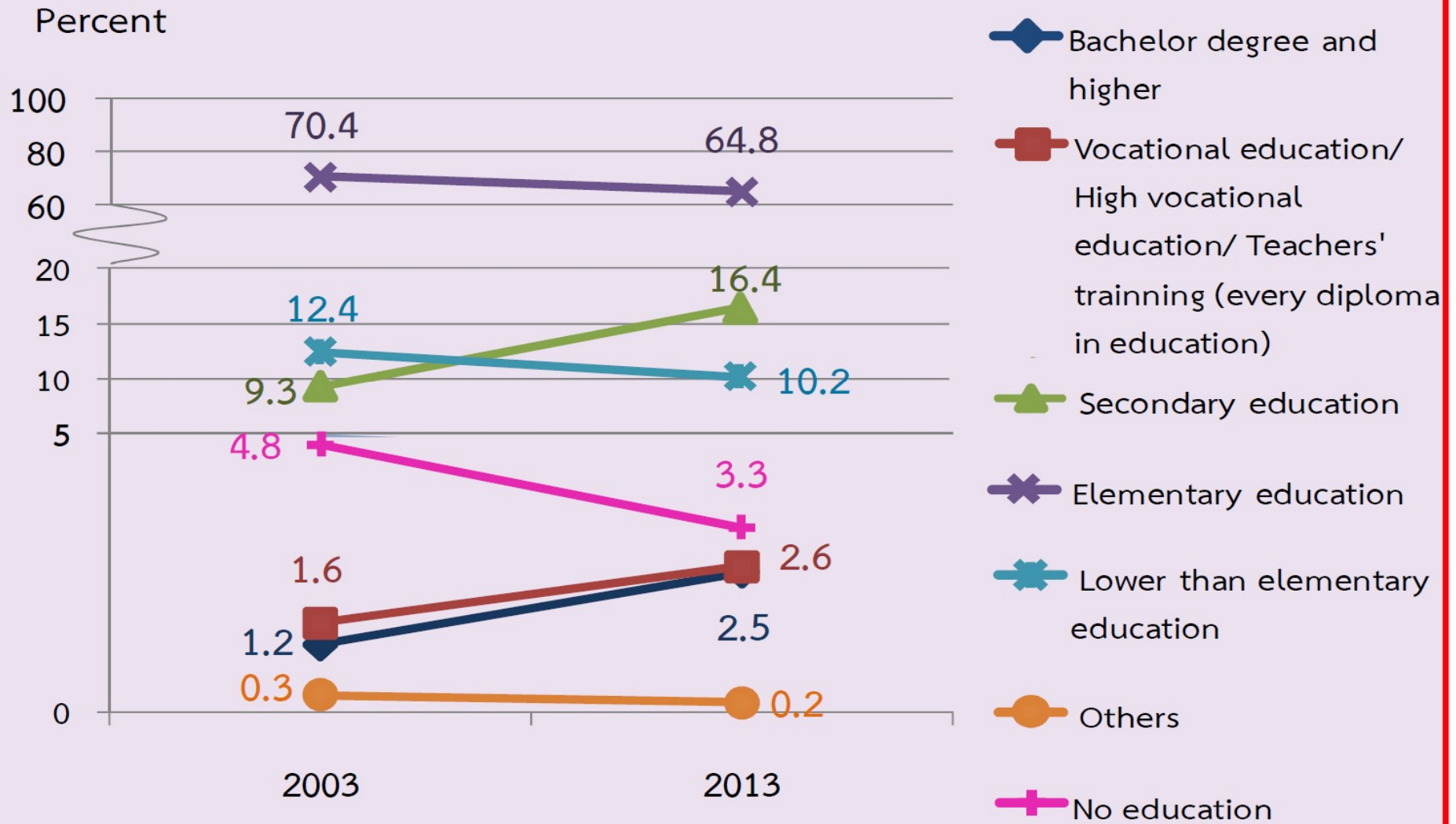
## Number of holder's household members 10 years of age and over by activity status (1993-2013)

Item	1993	2003	2013
Number of holder's household members 10 years of age and over	19,185,542 (100%)	19,633,586 (100%)	18,202,113 (100%)
<b>By activity status</b>			
Economically active	17,328,220 (90.3)	16,375,145 (83.4)	15,683,502 (86.2)
Engaged in agricultural work on the holding only	10,995,100 (57.3)	7,279,815 (37.1)	8,548,391 (47.0)
Mainly engaged in agricultural work on the holding and other works	3,463,039 (18.1)	4,918,779 (25.1)	3,300,449 (18.1)
Mainly engaged in other works and in agricultural work on the holding	1,848,623 (9.6)	2,917,606 (14.8)	1,900,861 (10.5)
Mainly engaged in other works (Not engaged in agricultural work on the holding)	1,021,458 (5.3)	1,258,945 (6.4)	1,933,801 (10.6)
Not economically active	1,857,322 (9.7)	3,258,441 (16.6)	2,518,611 (13.8)

# 2013 Agricultural Census

- In the last 10 years, the higher education of agricultural holders with secondary education level increased from 9.3 % to 16.4 %. For the holders with vocational degree and the holders with bachelor degree and higher level, the proportions were also increase (from 1.6% to 2.6% and 1.2% to 2.5% respectively).
- However, the proportion of holders with primary education level had decreased from 70.4 % to 64.8 %. The same pattern was also for the holders who had no schooling, which had decreased from 4.8 % to 3.3 %.

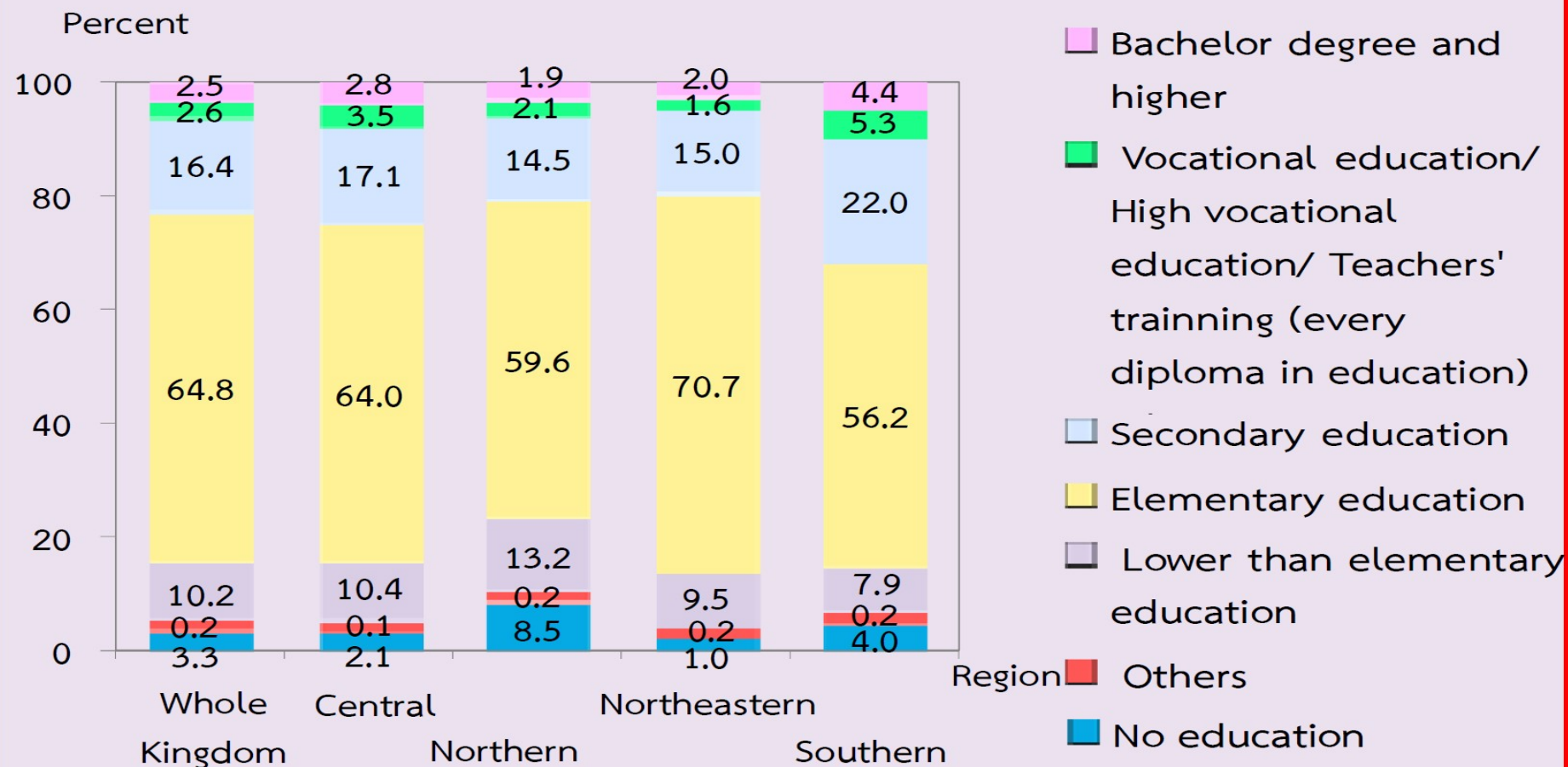
# Education of holders (2003 - 2013)



# 2013 Agricultural Census

- Considering by regions, Northeastern and Central region had the proportion of holders with primary education level higher than 60 % (70.7% and 64.0%), followed by Northern and Southern region (59.6% and 56.2% respectively).
- Southern Region had the highest proportion of the holders household which secondary education.
- The highest proportion of agriculture holders in the Northern region who graduated lower than elementary education and had no education were 13.2 % and 8.5 % respectively.

# Education of holders by region (2013)



# 2013 Agricultural Census

- There were 47.5 % of holders who had household income from agricultural activity only, while 52.5 % of holders household who earned income from both agricultural activity and other sources.
- The proportion of the holders household earned income from agricultural activity only increased by double from 2003 (from 21.1% to 47.5%),

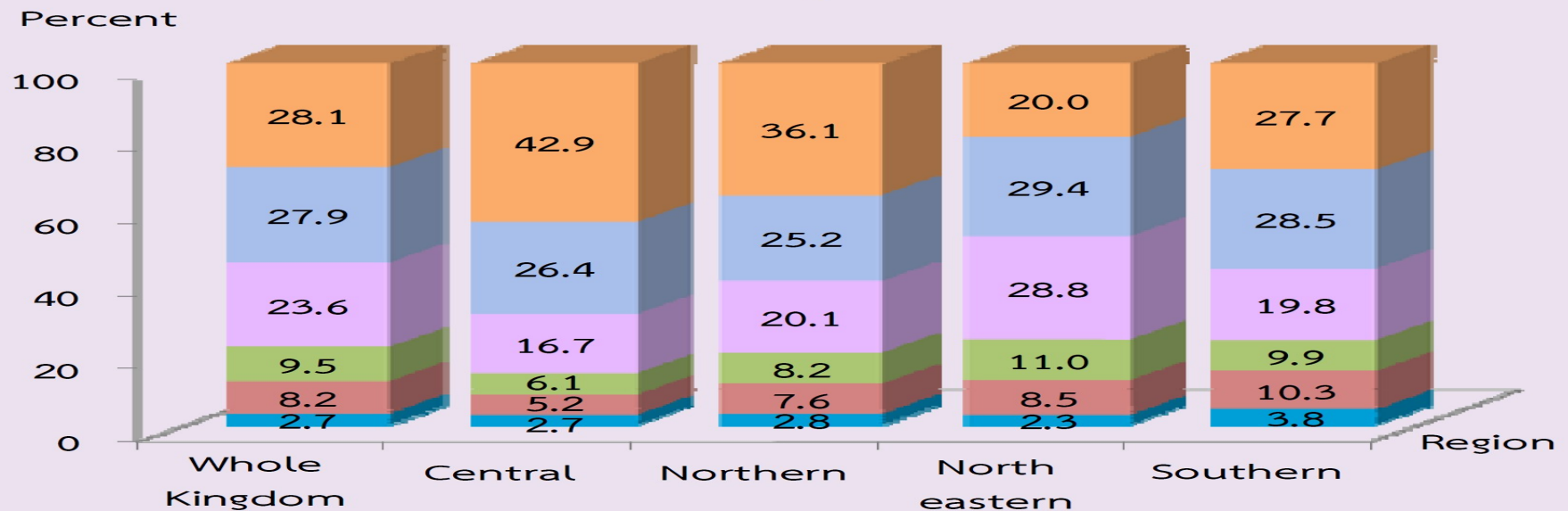
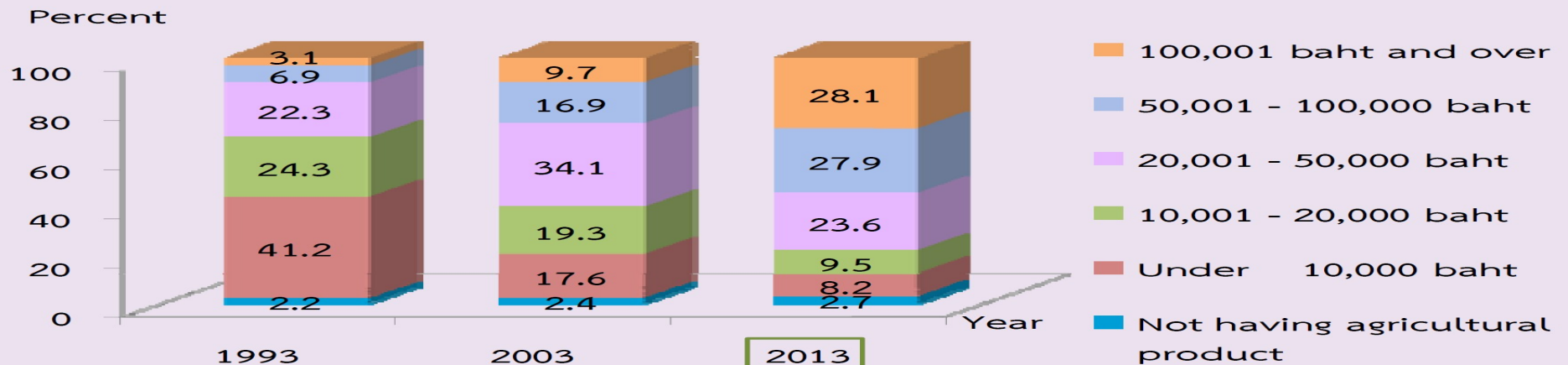
## Number of holders by household income (1993-2013)

Item	1993	2003	2013
Total number of holders (Excluding corporation)	5,643,529 (100%)	5,808,128 (100%)	5,905,714 (100%)
By source of household income			
Agriculture only	2,595,796 (46.0)	1,225,826 (21.1)	2,804,334 (47.5)
Agriculture and other sources	3,047,733 (54.0)	4,582,302 (78.9)	3,101,380 (52.5)
Mainly from agriculture	1,637,387 (29.0)	2,383,674 (41.1)	1,709,972 (28.9)
Mainly from being agricultural worker	151,155 (2.7)	244,144 (4.2)	228,840 (3.9)
Mainly from other sources <sup>3/</sup>	1,259,191 (22.3)	1,954,484 (33.6)	1,162,568 (19.7)

# 2013 Agricultural Census

- The proportion of the holders who earned income from agricultural products for 100,001 baht and over was 28.1%, followed by 50,001-100,000 baht and 20,001 - 50,000 baht (27.9% and 23.6% respectively).
- Considering by regions, Central and Northern region had the highest proportion of the holders household with income 100,001 baht and over (42.9% and 36.1% respectively), followed by Southern and Northeastern region (27.7% and 20.0% respectively).

# Number of holders by income from agricultural product (1993 - 2013)

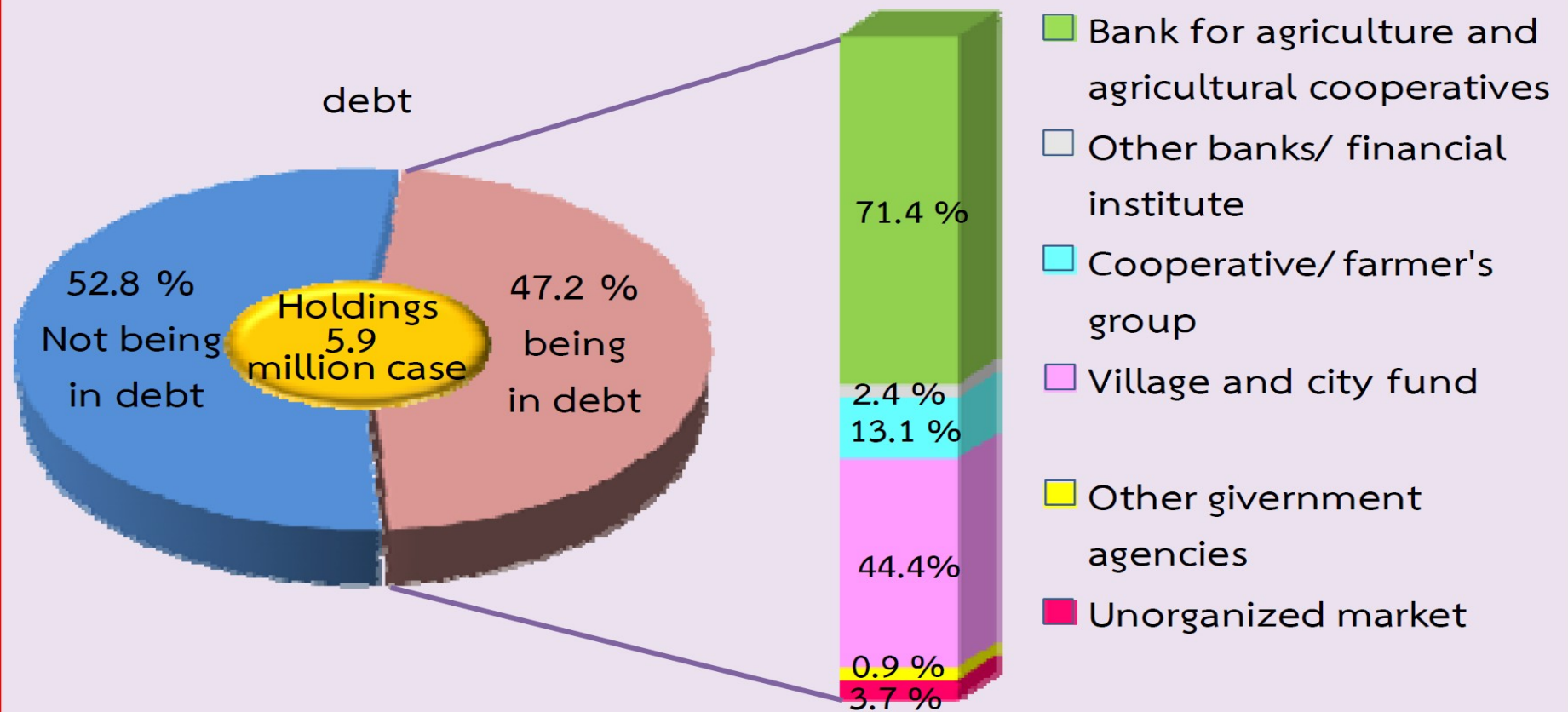


# 2013 Agricultural Census

- According to debt of household, there were 47.2% of the holders being in debt for agriculture.
- Most of debts (71.4%) borrowed from Bank for agriculture and agriculture cooperative followed by village and city fund and cooperative/ farmer's group (44.4% and 13.1% respectively).

# Dept of household (2013)

Number of holders with report<sup>4/</sup>  
of debt for agriculture



# 2013 Agricultural Census

- There were 51.5 % of the agricultural holders employed the agricultural workers. Most of them were employment on an occasional workers (48.4%).
- The employment of agricultural workers with permanent workers and both permanent and occasional workers were only 1.6 % and 1.5 % respectively.
- The permanent workers in 2013 were totally 1,161,182 persons. Of this number were the foreigner workers 144,279 persons (12.4%).

## Employment on agricultural (1993 -2013)

Item	1993	2003	2013
Total number of holdings	5,646,311 (100%)	5,814,214 (100%)	5,911,603 (100%)
Not employ agricultural workers	3,067,865 (54.3)	2,448,809 (42.1)	2,866,550 (48.5)
Employ agricultural workers	2,578,446 (45.7)	3,365,405 (57.9)	3,045,053 (51.5)
Permanent workers	56,377 (1.0)	85,980 (1.5)	93,832 (1.6)
Occasional workers	2,442,865 (43.3)	3,192,442 (54.9)	2,861,489 (48.4)
Permanent and occasional workers	79,204 (1.4)	86,983 (1.5)	89,732 (1.5)
Number of permanent workers	1,102,697 (100%)	665,427 (100%)	1,161,182 (100%)
By sex			
Male	405,901 (36.8)	367,082 (55.2)	644,808 (55.5)
Female	696,796 (63.2)	298,345 (44.8)	516,374 (44.5)
By source of workers			
Thai	*	599,377 (90.1)	1,016,903 (87.6)
Foreigner	*	66,050 (9.9)	144,279 (12.4)