



**KINGDOM OF CAMBODIA**

**Nation Religion King**

# **Census of Agriculture in Cambodia 2013**

## **Preliminary Report**



**National Institute of Statistics, Ministry of Planning  
in collaboration with  
Ministry of Agriculture, Forestry and Fisheries**



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## FOREWORD

I have the great pleasure to present the preliminary results of the first Census of Agriculture in Cambodia (CAC) 2013, which was conducted by the National Institute of Statistics, Ministry of Planning in collaboration with the Ministry of Agriculture, Forestry and Fisheries. This report focuses only on selected results of the core module of the CAC. The core module was a complete listing of all households in 24 provinces and selected five khans of Phnom Penh and complete enumeration of all households identified to have engaged in operating an agricultural holding.

The results from the Agriculture Census was aimed to provide data on the current agricultural situation in the country to be utilized in the formulation of plans, policies and programs for the development and improvement of its agriculture sector. Additionally, Agriculture Census will strengthen and improve the agricultural statistics system in particular the National Institute of Statistics and the Ministry of Agriculture, Forestry and Fisheries have capacity to produce agricultural data with quality and reliability as needed by data users.

I would like to express my deep sense of gratitude to Samdech Akka Moha Sena Padei Techo **HUN SEN**, Prime Minister of the Kingdom of Cambodia for his constant support which enabled successful completion of the Census. It was my privilege and pleasure to function as Chairman of the National Census Committee. I would like to thank the Provincial Governors and members of the National Census Committee and Provincial Census Committee for their assistances. Our thanks are due to the press, the Radio and the TV who played a very important role in census publicity.

On behalf of the Royal Government of Cambodia, I would like to thank the FAO, Sida, AusAid and USAID for supporting the whole process of the Census including resources and technical assistance program with emphasis on capacity development.

I extend my deep appreciation to H.E. Mr **San Sy Than**, Secretary of State of the Ministry of Planning and former Director General of the National Institute of Statistics and H.E. Ms **Hang Lina**, Director General of the National Institute of Statistics NIS for their effort in making the census a success. I would like also to take this opportunity to thank all staff of the NIS and everyone who contributed to the great success of the census. 



**CHHAY THAN**  
Senior Minister  
Minister of Planning

Phnom Penh  
August 2014



## PREFACE

The first Census of Agriculture in Cambodia (CAC) 2013 was a comprehensive statistical undertaking geared towards the collection and compilation of information on the agricultural activities that were undertaken in any agricultural holding. This Census was conducted by the National Institute of Statistics, Ministry of Planning in collaboration with the Ministry of Agriculture, Forestry and Fisheries in the preparatory phase till the release of this preliminary report.

This preliminary report was taken from the core module of the CAC that covered all villages in all communes in all districts of the 24 provinces and selected 5 khans in Phnom Penh. The data used in this preliminary report were focused only in the household agricultural holding that were operated and managed using agricultural lands in the past twelve months prior to 01 April 2013 (from 01 April 2012 to 31 March 2013) as the reference period.

The preliminary report presents the characteristics of agriculture holdings, major crops, agriculture households and holders, livestock and poultry, and economic activities engaged in the agricultural holdings. The information contained in this report provides a picture of the current agricultural situation in Cambodia and will be useful to researchers and policy-makers for the development and improvement of agriculture sector in our country.

I am grateful to H.E. **Chhay Than**, Senior Minister, Ministry of Planning, and H.E. **Chan Sarun**, former Minister of Agriculture, Forestry and Fisheries, H.E. **San Sy Than**, Secretary of State and former Director General of the National Institute of Statistics, for their great support to the census of agriculture in Cambodia.

I would like to thank FAO, Sida, AusAid and USAID which provide technical and financial assistance to the Census of Agriculture in Cambodia 2013, and special thanks to Ms **Josie Perez**, Lead Consultant, FAO/NIS for her kind support and guidance throughout the census works and the preparation of this report.

My deep appreciation goes to all the NIS staff and officers of the Ministry of Agriculture, Forestry and Fisheries involved in various stages of the census for their efforts, support and good work in making the census success.



**HANG LINA**  
Director General  
National Institute of Statistics

Phnom Penh  
August 2014

## **Compositions of the National Committee for the Census of Agriculture of the Kingdom of Cambodia, 2013**

H.E. <b>Chhay Than</b>	Senior Minister, Minister of Planning	Chairman
H.E. <b>Chan Tong Yves</b>	Secretary of State, Ministry of Agriculture, Forestry and Fisheries	Vice Chairman
H.E. <b>Sak Setha</b>	Secretary of State, Ministry of Interior	Vice Chairman
H.E. <b>Hang Chuon Naron</b>	Secretary of State, Ministry of Economy and Finance	Vice Chairman
H.E. <b>In Saroeung</b>	Secretary of State, Ministry of Planning	Permanent Vice Chairman
H.E. <b>Sam Sotha</b>	Secretary of State, Council of Ministers	Member
H.E. <b>Rath Sarin</b>	Secretary of State, Ministry of Land Management, Urban Planning and Construction	Member
H.E. <b>Yin Kim Sean</b>	Secretary of State, Ministry of Environment	Member
H.E. <b>Pit Chamnan</b>	Secretary of State, Ministry of Education, Youth and Sport	Member
H.E. <b>Veng Sakhon</b>	Secretary of State, Ministry of Water Resources and Meteorology	Member
H.E. <b>Thach Phen</b>	Secretary of State, Ministry of Information	Member
H.E. <b>San Visal</b>	Secretary of State, Ministry of Rural Development	Member
H.E. <b>San Sy Than</b>	Director General, National Institute of Statistics and Under Secretary of State, Ministry of Planning	Secretary

## Compositions of the Technical Committee for the Census of Agriculture of the Kingdom of Cambodia, 2013

H.E. <b>In Saroeung</b>	Secretary of State, Ministry of Planning	Chairman (Until 23 September 2013)
H.E. <b>Rin Virak</b>	Secretary of State, Ministry of Planning	Chairman (From 24 September 2013)
H.E. <b>Tuy Chamroeun</b>	Under Secretary of State, Ministry of Planning	Vice Chairman
H.E. <b>Hor Darith</b>	Under Secretary of State, Ministry of Planning	Vice Chairman
H.E. <b>San Sy Than</b>	Director General, National Institute of Statistics and Under Secretary of State, Ministry of Planning	Permanent Vice Chairman (Until 02 April 2013)
H.E. Ms. <b>Hang Lina</b>	Director General, National Institute of Statistics	Permanent Vice Chairman (From 03 April 2013)
Mr. <b>Hong Narit</b>	Director of Planning and Statistics, Ministry of Agriculture, Forestry and Fisheries	Vice Chairman
H.E. <b>Seng Soeurn</b>	Deputy Director General, National Institute of Statistics	Member
H.E. <b>Phoeuk Sarin</b>	Chief Cabinet, Ministry of Planning	Member
Mr. <b>Khin Sovorlak</b>	Deputy Director General, National Institute of Statistics	Member
Mr. <b>Chhay Satya</b>	Deputy Director General, National Institute of Statistics	Member
Mr. <b>Mich Kanthul</b>	Director of Economic Statistics, National Institute of Statistics	Member
Mr. <b>Kim Phalla</b>	Director of Economic Policy and Public Finance Ministry of Economy and Finance	Member
Mr. <b>Ya Sadet</b>	Director of Planning, Council of Ministers	Member
Mr. <b>Long Sokha</b>	Director of Agriculture, Council of Ministers	Member
Mr. <b>Phoung Sophea</b>	Director of Economic Development, Investment and International Relations, Ministry of Land Management, Urban Planning and Construction	Member
Mr. <b>Chan Sovanna</b>	Deputy Director of General Administration, Ministry of Interior	Member
Mr. <b>Srun Pithou</b>	Deputy Director of Planning and Public Relations, Ministry of Rural Development	Member
Mr. <b>Nop Sohearith</b>	Deputy Director of Planning and Legal Affairs, Ministry of Environment	Member
Mr. <b>Oung Borat</b>	Deputy Director of Planning , Ministry of Education, Youth and Sport	Member
Mr. <b>Ly Chhay</b>	Deputy Director of Planning and International Cooperation, Ministry of Water Resources and Meteorology	Member
Ms. <b>Meas Sotheavy</b>	Deputy Director of Planning and Statistics, Ministry of Agriculture, Forestry and Fisheries	Member
Mr. <b>Kong Siek Ly</b>	Chief of Bureau, Ministry of Environment	Member
Mr. <b>Pich Pothy</b>	Deputy Director of Economic Statistics, National Institute of Statistics	Secretary

## **Compositions of the Publicity Committee for the Census of Agriculture of the Kingdom of Cambodia, 2013**

<b>H.E. In Saroeung</b>	Secretary of State, Ministry of Planning	Chairman
<b>H.E. Thach Phen</b>	Secretary of State, Ministry of Information	Vice Chairman
<b>H.E. Kem Gunawadh</b>	Delegate of the Royal Government in charge of the Director General, National Television of Cambodia, Ministry of Information	Vice Chairman
<b>H.E. Tan Yan</b>	Delegate of the Royal Government in charge of the Director General, National Radio of Cambodia, Ministry of Information	Vice Chairman
<b>H.E. San Sy Than</b>	Under Secretary of State, Ministry of Planning, and Director General, National Institute of Statistics	Permanent Vice Chairman
<b>Mr. Hong Narit</b>	Director of Planning and Statistics, Ministry of Agriculture, Forestry and Fisheries	Member
<b>H.E. Ms. Hang Lina</b>	Deputy Director General, National Institute of Statistics	Member
<b>Mr. Phoung Sophea</b>	Director of Economic Development, Investment and International Relations, Ministry of Land Management, Urban Planning and Construction	Member
<b>Mr. In Sambol</b>	Deputy Director of Planning, Ministry of Rural Development	Member
<b>Mr. Ly Chhay</b>	Deputy Director of Planning and International Cooperation, Ministry of Water Resources and Meteorology	Member
<b>H.E. Seng Soeurn</b>	Deputy Director General, National Institute of Statistics	Secretary



## Summary Indicators

### Agricultural Holdings

Number of households listed (24 provinces and 5 districts in PP) (in millions)	2.6
Percent of households engaged in agricultural activities to total households listed (in %)	84.6
Percent of households engaged in growing of crops in agricultural land of at least 0.3 ha. to total households with agricultural activities (in %)	85.3
Percent of households engaged in livestock and poultry to total households engaged in growing of crops in agricultural of at least 0.3 ha. (in %)	80.5
Number of Agricultural Holdings (in millions)	1.9*
Total area of the Agricultural Holdings (in million hectares)	3.1
Average area per Holding (in hectares)	1.637
Percent of agricultural land areas used in the holdings to the total combined arable and permanent crop land areas in the country (in %)	68
Total number of Parcels (in millions)	3.7
Percent of parcels used in growing temporary crops (in %)	95.1
Percent of parcels used in growing permanent crops (in %)	7.2
Percent of parcels owned (or owner-like) by the households (in %)	97.9
Percent of agricultural holdings using irrigation on the parcels (in %)	32.1
Percent of agricultural holdings growing non-aromatic paddy	91.7
Percent of holdings that used agricultural produce mainly for home consumption (in %)	72.8

### Agricultural Holders

Average size of households with holdings operated in agricultural lands (persons per household)	5
Sex ratio of agricultural holders	268 males for every 100 females
Median age of agricultural holders (in years)	44
Median age of male agricultural holders (in years)	43
Median age of female agricultural holders (in years)	47

### Livestock and Poultry

Number of cattle as of the time of census core module (in millions)	2.7
Number of buffaloes as of the time of census core module (in thousands)	472
Number of pigs as of the time of census core module (in millions)	1.5
Number of goats as of the time of census core module	18,492
Number of chickens as of the time of census core module (in millions)	27.8
Number of ducks as of the time of census core module (in millions)	5.1

### Aquaculture

Percent of agricultural holdings with aquaculture activities that operated pond culture (in%)	83.7
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\* See Chapter 1, Section 1.6 Definition of the Main Terms and Concepts Used.

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## Acronyms and Abbreviations

AusAid	Australia Agency of International Development
CAC	Census of Agriculture in Cambodia
CSES	Cambodia Socio-Economic Survey
FAO	Food and Agriculture Organization
FAOSTAT	FAO Statistics
GDP	Gross Domestic Products
MAFF	Ministry of Agriculture, Forestry and Fisheries
MOP	Ministry of Planning
NIS	National Institute of Statistics
Sida	Swedish International Development Cooperation Agency
USAID	United States Agency for International Development

# **Chapter 1**

## **Basic Information on the First Census of Agriculture in Cambodia**

### **1.1 Introduction**

The first Census of Agriculture in Cambodia (CAC) was a comprehensive statistical undertaking geared towards the collection and compilation of information on the agricultural activities that were undertaken in any agricultural holding. An agricultural holding in Cambodia was defined as an economic unit under single management comprising of at least 2 large livestock and/or at least 3 small livestock and/or at least 25 poultry of any kind and/or land with a size of at least 300 square meters used wholly or partly for agricultural production purposes regardless of title, legal form or size. The agricultural activities included growing of crops such as cereal grains, root crops, fruits, nuts; vegetables, etc. during the past twelve months prior to the day of visit to the households and/or, raising of livestock/ poultry as of the time of enumeration. The agricultural holding may had engaged also in aquaculture operation.

The first CAC involved two modules: (a) core module, which listed completely all households in 24 provinces and selected districts in Phnom Penh and enumerated households found in these provinces operating agricultural holdings; and, (b) supplementary module, which enumerated completely all households with large agricultural holdings and sample households with small agricultural holdings in sample villages in each commune.

The first CAC was aimed to provide data on the current agricultural situation in the country to be utilized in the formulation of plans, policies and programs for the development and improvement of its agriculture sector. Specifically, the census data would provide:

1. Sampling frame for agricultural sample surveys; and,
2. Data on the growing of crops and/or raising livestock and/or poultry and aquaculture activities done inside the agricultural holding that would be produced at the smallest administrative unit level in the country.

### **1.2 Authority and Confidentiality of the CAC**

The NIS-MOP and the MAFF were the responsible government ministries authorized to undertake the first CAC. The NIS was mandated to undertake all censuses (population, agriculture and economics) while the MAFF would be the primary user of the census data.

The Statistical Law of Cambodia Article 22 specified that all individual information obtained from respondents of censuses/surveys were held STRICTLY CONFIDENTIAL, except under special circumstances with the consent of the Minister of Planning.

### **1.3 Scope of the Core Module**

The core module included the following data items:

1. Listing included geographic information where each household listed could be found and information regarding the involvement of households in agriculture and/or fisheries activities which included aquaculture.

2. Basic information regarding the household agricultural holding included geographic location of the households with agricultural holdings, name, sex and age of agricultural holder, legal status of the agricultural holder, size and number of parcels in the holding, location, actual area, main land use and land tenure of each parcel in the holding, presence of forest and other wooded lands, use of irrigation, temporary crops planted, permanent crops planted, main purpose of production, livestock/poultry raised in the holding, presence of aquaculture and holder's household information.
3. Village information included type of soil, main topographical feature, prone to any calamity/disaster within previous five years, economic activities available, seasonal labor movement, crop duration, agro-processing equipment/machines/facilities, mode of transport, available school, communication facilities, health facilities, water facilities, access to roads and presence of market, presence of people's organization, presence of NGO, ethnicities/national races and religion.

#### **1.4 Coverage**

The data used in this preliminary report were taken from the core module of the CAC that covered all household agricultural holdings in all villages in all communes in all districts of the 23 provinces and selected 5 districts in Phnom Penh. During the census taking in 2013, the new province Tbong Khmum did not yet exist. However, from the generated statistical tables presented in this report, data for Kampong Cham and Tbong Khmum were ably separated and shown in each table.

The core module census used the past twelve months prior to 01 April 2013 (from 01 April 2012 to 31 March 2013) as the reference period.

#### **1.5 Limitation**

The data included in this preliminary report focused only in the household agricultural holdings that were operated and managed using agricultural lands. The data on the homelot agricultural activities as well as the agricultural establishment information are excluded here. As of the time of producing the preliminary census results, data on these two portions are still being consistently checked and evaluated.

#### **1.6 Definition of the Main Terms and Concepts Used**

An **agricultural holding** in Cambodia is an economic unit under single management comprising of at least 2 large livestock and/or at least 3 small livestock and/or at least 25 poultry of any kind and/or land with a size of at least 300 square meters, used wholly or partly for agricultural production purposes regardless of title, legal form or size.

A **parcel** is a piece of land entirely surrounded by other land or water or road or forest or other features not forming part of the holding.

An **agricultural holder** is the person that makes the major decision regarding resource use; exercises management control over the agricultural holding operation; has technical and economic responsibility for the holding; and, may undertake all responsibilities directly or delegate day-to-day responsibilities to a hired manager.



## Chapter 2

### Relevant Information about Cambodia

Cambodia is one of the countries located in the southern portion of the Indo-China Peninsula. Its total land area is 181,035 square kilometers. It is bounded by Thailand in the northwest, Laos in the north, Vietnam in the east and southeast, and the Gulf of Thailand in the southwest.

The Projected Population<sup>1</sup> in 2013 indicated a total of 14.96 million people, in which there were 48.9 percent males and 51.1 percent females. Its Gross Domestic Product (GDP) per capita at current price in 2013 was estimated at USD 1,026. The percentage of population living below the poverty line was predicted to have been decreased by 5 percent from 2007 to 2010.

Cambodia's agriculture remained a large, undeveloped sector, contributing 31.6 percent to GDP in 2013. About 64.6 percent as presented in the Food and Agriculture Organization Statistics (FAOSTAT; 2014) of the total labor force in 2013 were employed in the agriculture, fisheries and forestry as their primary occupation.

Rice and other cereals were the major agricultural products exported to other countries. In 2011, the quantity of cereals exported to the other countries was calculated at 180.3 thousand tons. Rice exports were estimated at 174,000 tons. The annual growth rate from 2006 to 2011 of these two agricultural exports was recorded at positive higher percentage as shown in the tables below.

Table 2.1 Cambodia: Evolution of Trade Quantities for Selected Commodities

Agricultural Commodities	Quantity (1000 T)				Annual growth rate (%)		
	1996	2001	2006	2011	1996-2001	2001-2006	2006-2011
Cereals exports	10.4	7.1	38.0	180.3	-7.35	39.86	36.53
Rice exports	5.6	7.0	5.2	174.0	4.56	-5.77	101.79
Coarse grain exports	4.8	0.0	32.6	6.3	-100	n.a.	-28.02
Cereals imports	41.8	59.8	65.2	44.4	7.42	1.74	-7.4

Source: FAOSTAT, FAO of the UN, Accessed on August 30, 2013. <http://faostat.fao.org/site/>

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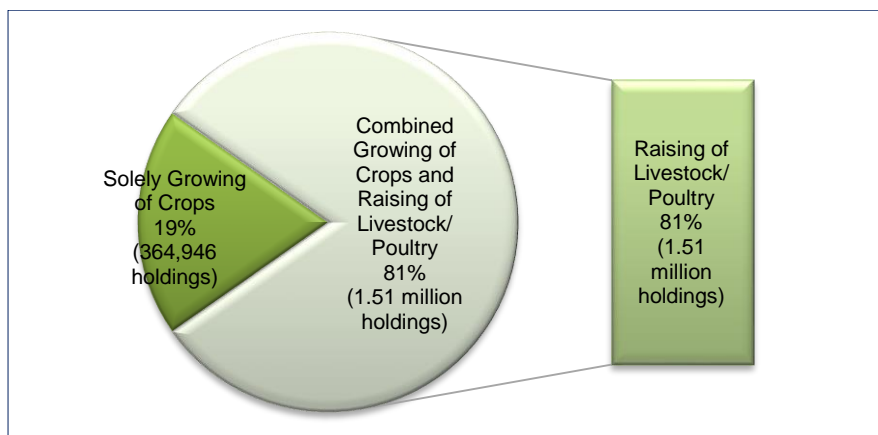
<sup>1</sup> The 2008 Census of Population data was used in computing for the Population Projection.

## Chapter 3

### Agricultural Holdings

In Cambodia, there were 2.6 million households listed in April 2013; of which, 2.2 million or 4 out of 5 households were engaged in agricultural activities. Of these households, 85 percent (1.876 million) were reported to have engaged in growing of crops in agricultural holdings as shown in Chart 3.1, in which 19 percent were growing crops only while 81 percent were engaged in two activities: growing of crops and raising of livestock/poultry. Most of these livestock and/or poultry were usually raised in homelots. Of the remaining 15 percent of the households with agricultural activities, the information on these will be presented in the final report.

Chart 3.1 Agricultural Activities in Agricultural Holdings: 2013



Source: NIS, CAC Core Module 2013.

Two of the four regions or zones in the country reported to have more than 500,000 agricultural holdings operated in 2013. These were the Plain Zone, sharing the highest total of around 869,000 agricultural holdings; followed by Tonle Sap Lake Zone with 614,000 agricultural holdings.

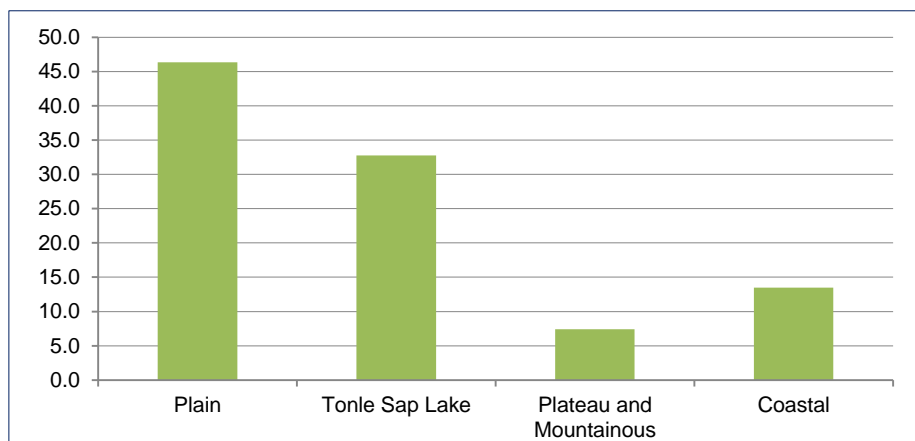
Table 3.1 Number and Proportion of Agricultural Holdings Growing Crops, by Zone: 2013

Zone	Number of Agricultural Holdings	Proportion
Cambodia	1,875,712	100.00
Plain	869,305	46.35
Tonle Sap Lake	614,369	32.75
Coastal	139,433	7.43
Plateau and Mountainous	252,605	13.47

Source: NIS, CAC Core Module 2013.

Thus, the proportion of the agricultural holdings in the Plain Zone to the total holdings in the country was 46.4 percent. The households in the Tonle Sap Lake and Coastal Zones were not hindered in operating agricultural lands though these were located within the fisheries areas. The Tonle Sap Lake Zone had a proportion of agricultural holdings at 32.8 percent but the proportion of those in the Coastal Zone was way below the 10 percent mark. The Plateau and Mountainous Zone was reported to have almost 14 percent of the total holdings that grew crops in the past twelve-month reference period.

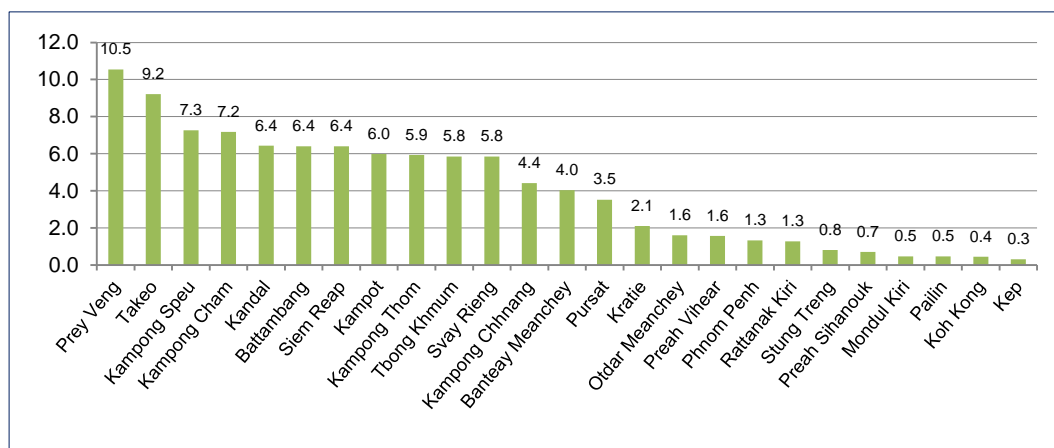
Chart 3.2 Proportions of Agricultural Holdings Growing Crops, by Zone: 2013



Source: NIS, CAC Core Module 2013.

Eleven out of the 25 provinces were above the 5-percentage proportion of agricultural holdings. Six of these 11 provinces belonged to the Plain Zone; three from Tonle Sap Lake Zone; and, one each from the other two zones.

Chart 3.3 Proportions of Agricultural Holdings Growing Crops to the Total Holdings in the Country, by Province: 2013

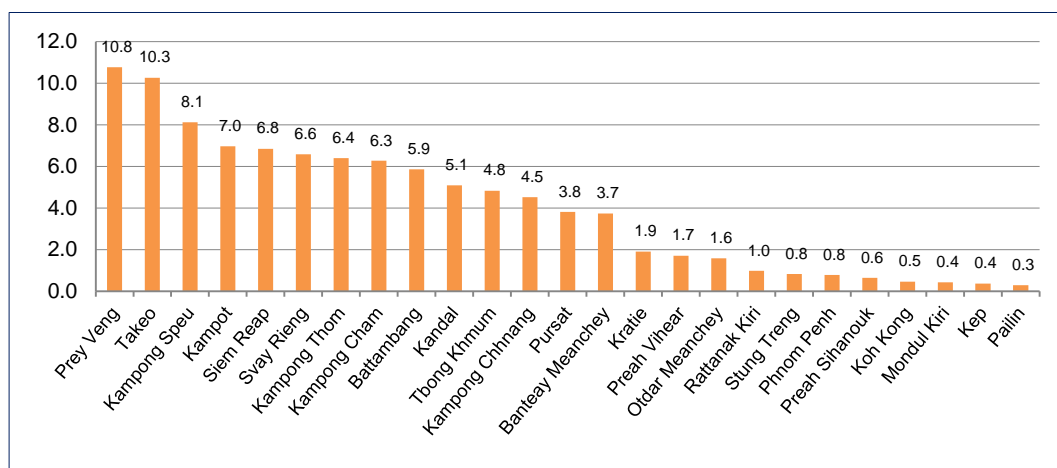


Source: NIS, CAC Core Module 2013.

The biggest proportion of agricultural holdings growing crops to the total holdings in the country was reported from Prey Veng (10.5 percent), followed by those from Takeo (9.2 percent). Kampong Speu and Kampong Cham shared almost 7.2 percent mark while Kandal, Battambang and Siem Reap reported equal proportions of 6.4 percent. Likewise, the last four provinces among the top 11 reached more or less 5.9 percent.

The four smallest provinces, namely Mondul Kiri, Pailin, Koh Kong and Kep had the least proportions of agricultural holdings.

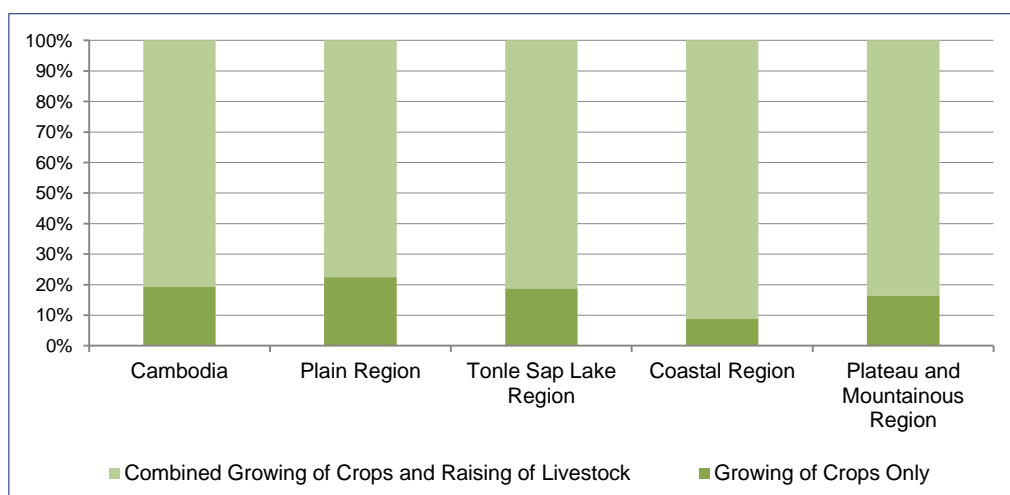
Chart 3.4 Proportions of Agricultural Holdings Raising Livestock and/or Poultry to the Total Holdings in the Country, by Province: 2013



Source: NIS, CAC Core Module 2013.

Four out of five agricultural holdings in the country had raised livestock and/or poultry either within the homelot or in separate land. The top three provinces, namely Prey Veng (11 percent), Takeo (10 percent) and Kampong Speu (8 percent), in growing crops also led the other provinces in raising livestock and/or poultry. Other provinces with proportion of more than 5 percent were Kampot, Siem Reap, Svay Rieng, Kampong Thom, Kampong Cham, Battambang and Kandal. Provinces with less than 1 percent of agricultural holding engaged in livestock/poultry raising were Stung Treng, Phnom Penh, Preah Sihanouk, Koh Kong, Mondul Kiri, Kep and Pailin.

Chart 3.5 Percent of Agricultural Holdings Engaged in Growing Crops Only and Combined Crops and Livestock/Poultry Raising, by Zone: 2013



Source: NIS, CAC Core Module 2013.

The agricultural holdings engaged in both growing of crops and raising livestock and/or poultry was four-fifth of the total holdings reported in the country. This was four times the number or percent of agricultural holdings that grew crops only. In Chart 3.5, the percent of agricultural holdings solely growing crops in the Plain Zone was slightly higher than the national percentage. On the other hand, the agricultural holdings involved in combined crops and livestock/poultry activities in Tonle Sap Lake, Coastal and Plateau and Mountainous Zones had higher percent compared to that of the national level.

Table 3.2 Number and Area of Agricultural Holdings with Land: 2013

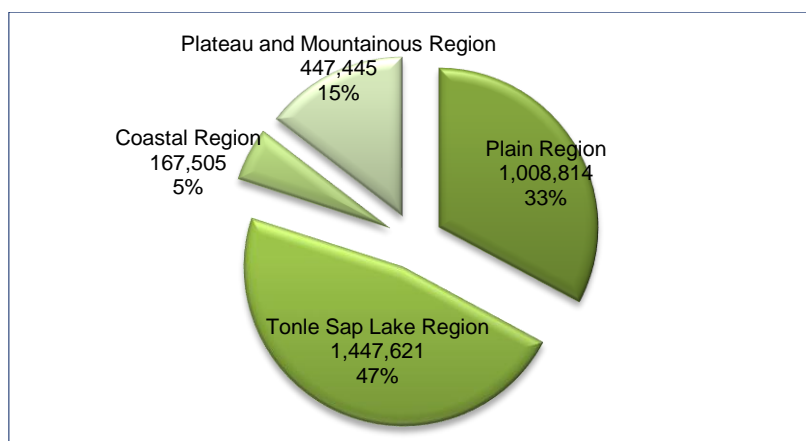
Number of Agricultural Holdings	1,875,712
Total Area of the Agricultural Holdings (in ha.)	3,071,384
Average Area per Holding (in ha.)	1.637
Total Number of Parcels	3,731,551

Source: NIS, CAC Core Module 2013.

The 1.9 million agricultural holdings were engaged in growing of crops that were undertaken in agricultural lands with a total area of 3.1 million hectares. On the average, each agricultural holding measured 1.751 hectares. The number of parcels comprising the agricultural holdings totaled to 3.8 million, with an average of 2 parcels per holding.

The biggest area of agricultural lands was reported by the holdings in the Tonle Sap Lake Region with 1.45 million hectares or 47 percent of the total agricultural land area. This proportion of the Tonle Sap Lake Zone's agricultural land area was higher by 14 percentage points from the proportion of the Plain Zone (1.0 million hectares or 33 percent).

Chart 3.6 Area of Agricultural Holdings, by Zone: 2013



Source: NIS, CAC Core Module 2013.

In terms of the total area of the agricultural holdings in Tonle Sap Lake Zone, three provinces, Battambang (375,000), Siem Reap (234,000) and Banteay Menchey (227,000), surpassed the 200 thousand hectares. On the other hand, the Coastal Zone reported the smallest hectares of agricultural holdings, in which Kep was noted to have the smallest area.

Likewise, the average area per holding in the Tonle Sap Lake Region was noted as the highest. Among the provinces in this zone, Otdar Menchey, Pailin, Banteay Menchey and Battambang reported the biggest average area per holding due to the presence of many large agricultural holdings, each measuring at least 10 hectares.

Though the Plain Region's total agricultural land area was higher than those in the Plateau and Mountainous Zone, its average area per holding was smaller compared to that of the latter by 0.611 hectare. The provinces under the Plateau and Mountainous Zone were the sites of big land area for industrial crops like sugarcane, cassava, rubber, etc. The information on these big industrial agricultural holdings would be presented in the final report of the census.

The biggest total number of parcels was shared by the Plain Region (1.8 million) because three of the biggest provinces, namely, Prey Veng, Takeo and Kampong Cham reported 60 percent of these parcels. In the lowest side, the Coastal Zone had the least number of parcels as contributed by three of its provinces.

Table 3.3 Total and Average Area of Agricultural Holding Lands, by Zone and Province: 2013

Zone/Province	Total Area of the Agricultural Holdings (in ha.)	Average Area per Holding (in ha.)	Total Number of Parcels
Cambodia	3,071,383.834	1.637	3,731,551
Plain Region	1,008,813.805	1.160	1,753,982
Kampong Cham	174,957.946	1.301	278,615
Tbong Khmum	192,205.415	1.752	208,215
Kandal	100,010.170	0.830	211,544
Phnom Penh	28,005.118	1.136	33,564
Prey Veng	229,443.979	1.161	423,159
Svay Rieng	126,603.214	1.155	219,871
Takeo	157,587.963	0.913	379,014
Tonle Sap Lake Region	1,447,620.557	2.356	1,148,610
Banteay Meanchey	227,079.729	3.007	140,209
Battambang	374,558.503	3.118	191,176
Kampong Chhnang	103,404.343	1.250	212,923
Kampong Thom	195,057.649	1.754	230,841
Pursat	125,042.060	1.894	111,146
Siem Reap	233,617.796	1.947	202,234
Otdar Meanchey	150,891.374	5.012	48,889
Pailin	37,969.103	4.413	11,192
Coastal Region	167,504.843	1.201	325,178
Kampot	116,291.089	1.035	276,265
Koh Kong	17,473.730	2.146	16,458
Preah Sihanouk	28,428.799	2.172	20,690
Kep	5,311.225	0.913	11,765
Plateau and Mountainous Region	447,444.629	1.771	503,781
Kampong Speu	131,268.724	0.963	312,858
Kratie	83,947.855	2.136	69,725
Mondul Kiri	25,390.442	2.919	12,072
Preah Vihear	79,977.562	2.740	45,141
Rattanak Kiri	82,650.725	3.447	41,351
Stung Treng	44,209.321	2.909	22,634

Source: NIS, CAC Core Module 2013.

Cambodia's total land area for arable and permanent crops was estimated at 4.5 million of hectares in 2013, of which 3.99 million hectares were arable land and 0.51 million hectares were used for permanent crops such as fruit trees, rubber and other wood trees.

Table 3.4 Cambodia: Evolution of Land Use

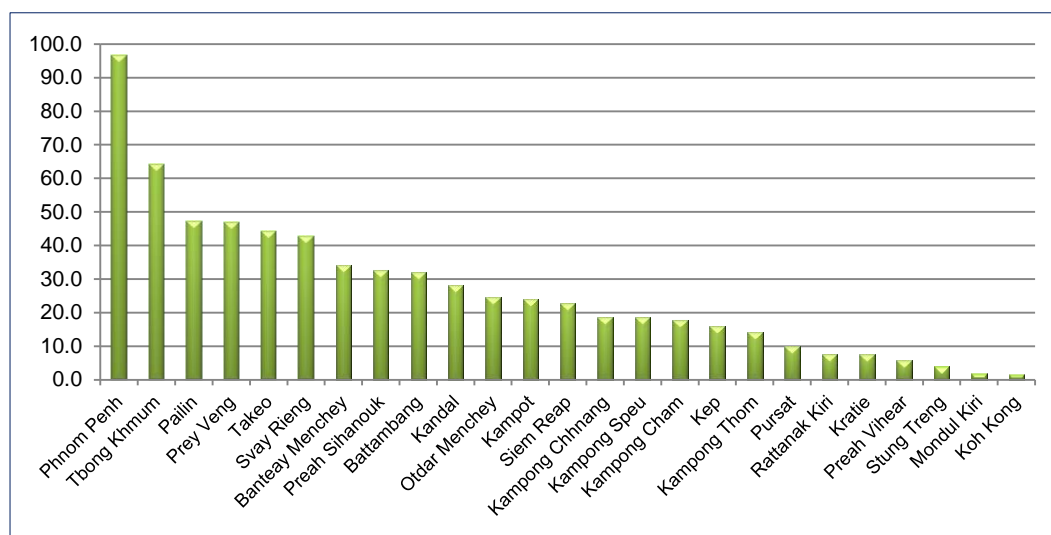
Type	Area (Millions of ha)			
	2010	2011	2012	2013
Total land area (arable and permanent)	3.81	4.22	4.39	4.50
Arable land	3.46	3.82	3.92	3.99
Permanent crops	0.35	0.40	0.47	0.51

Source: MAFF

68 percent of the combined area of arable and permanent crops in 2013 was utilized in operating agricultural holdings in which growing of crops and/or raising of livestock and/or poultry were undertaken.



Chart 3.7 Proportion of the Agricultural Holding Area to the Total Land Area, by Province: 2013



Source: NIS, CAC Core Module 2013.

Among the provinces, Phnom Penh and Tbong Khmum were the two provinces reporting more than 50% of their total land area in operating agricultural holdings. Though 96.6 percent of the total land area in Phnom Penh had been used in growing of crops and/or raising of livestock/poultry, most of these agricultural lands might be located in other provinces. Note that the agricultural land area were reported and tabulated at the residence of the agricultural holder. Hence, the estimated percent of utilized land area for agricultural activities might decrease once the tabulated data by location of the parcel would be presented in the final report.

The Cambodian Socio-Economic Survey (CSES) is an annual survey conducted by NIS through the technical and funding support of Sida. The CSES 2013 contained a lot of information on agricultural activities of the sample households. Almost 50% of the contents of its questionnaires were about agriculture, livestock, fisheries and forestry. However, in 2013, the CSES used only 3,600 sample households. Hence, the CAC core module national level data was compared only with the national level estimates of the CSES.

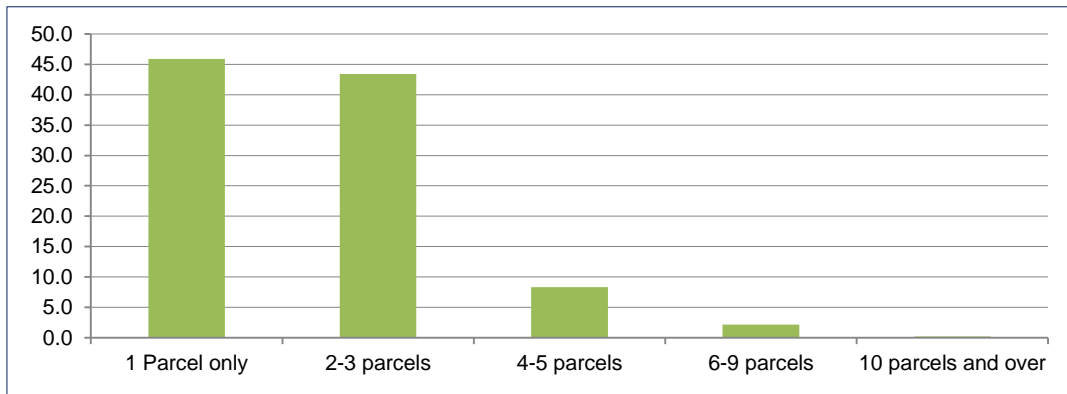
Table 3.5 Comparative Data from CSES and CAC Core Module: 2013

Indicator	CSES 2013	CAC Core Module 2013
Number of Households with Agricultural Lands	2,025,501	1,875,712
Number of Agricultural Plots/Parcels	3,166,953	3,731,551
Area of Agricultural Lands (in Hectares)	3,263,387	3,071,384

Source: NIS, CSES 2013 and CAC Core Module 2013.

As can be seen in Table 3.5, the number of households with agricultural lands as well as the area of agricultural lands (in hectares) reported in the CSES 2013 were higher than the number and area of agricultural holdings reported in CAC core module 2013 by 7.9 percent and 6.3 percent, respectively. On the other hand, the number of parcels reported in the CSES 2013 was lower than those in the CAC core module data by 15.1 percent. The differences may be due to the methodology and concepts used in gathering the data. The CSES used sampling methodology while CAC core module was a complete enumeration of all households engaged in agricultural holdings. The difference in the concepts of plots and parcels also contributed to the disparity of the data between these two activities. In addition to this, measuring agricultural lands was associated in the agricultural holding concept used in the CAC core module.

Chart 3.8 Percent of the Agricultural Holdings According to Number of Parcels: 2013

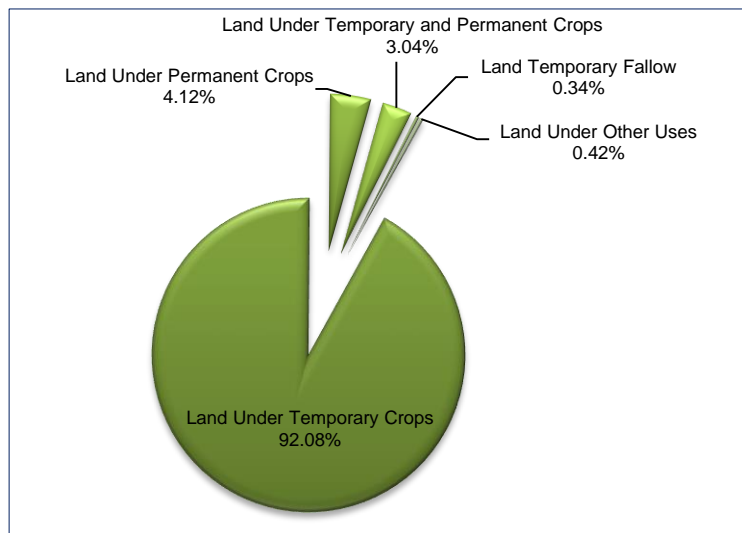


Source: NIS, CAC Core Module 2013.

An agricultural holding is composed of one or more several pieces of land called parcel(s), entirely surrounded by other land or water or road or forest or other features not forming part of the holding. The number of parcels comprising all agricultural holdings in Cambodia totaled to 3.73 million. Nine out of 10 agricultural holdings were composed of 1-3 parcels. To be exact, 45.9 percent were reported to be one-parcel agricultural holdings. Another 43.4 percent of the total agricultural holdings were composed of 2-3 parcels. A very nil percentage of agricultural holdings (0.2 percent) reported to have 10 or more parcels.

In the succeeding portions, the parcels inside the agricultural holdings were described using the main land use, land tenure and use of irrigation. Land use refers to the use of the parcels in activities such as growing crops, raising livestock or cultivating fish – carried out on the land making up the holding with the intention of obtaining products and/or benefits.

Chart 3.9 Percent of Parcels, by Land Use: 2013



Source: NIS, CAC Core Module 2013.

Of the total number of parcels in the agricultural holdings, 92 percent were used in growing temporary crops only and the rest were used for growing permanent crops and other land uses. Temporary crops are crops with a growing cycle of less than 1 year. Permanent crops are crops that can be grown for more than a year. A nil percentage of 0.34 were fallow or idle parcels which were left as such for a period of less than 5 years to regain the fertility of the lands.

Of the total reported parcels, 97.9 percent were owned by the households or if not owned, these were treated as owner-like possession though at the time of the census. An owner-like possession parcel refers to the area of the land under certain conditions that enable a holder to operate it as if he/she is the owner although he/she does not possess title of ownership. These are lands to be inherited and those that are still being paid on installment basis.

The percentage of rented parcels with payment in terms of money and/or produce was higher in the Tonle Sap Lake Zone at 1.8 percent and in the Plain Zone at 1.7 percent. Among the provinces, Pailin of Tonle Sap Lake Zone had the biggest percentage (10.5 percent) of rented parcels followed by Phnom Penh (7.4 percent) which was located in the Plain Zone.

Table 3.6 Proportion of Parcels Reporting Land Tenure, by Zone and Province: 2013

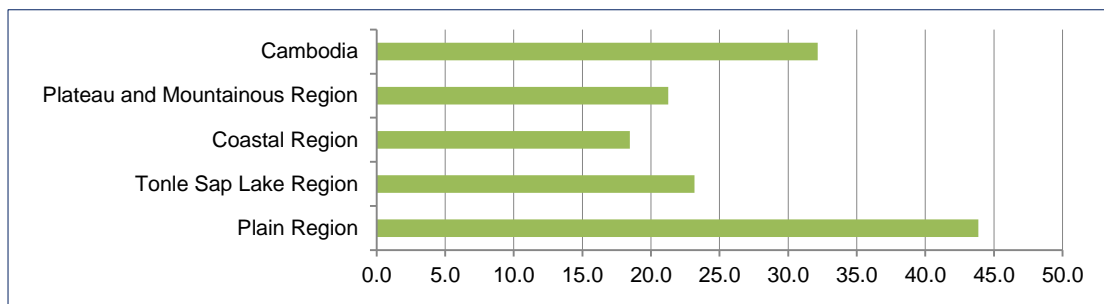
Zone/Province	Percentage of Parcels, by Land Tenure				
	Owned/Owner like Possession	Rented with Payment in terms of money and/or produce	Rented Free	Other Land Tenure	Total Number of Parcels Reported
Cambodia	97.91	1.53	0.36	0.21	3,731,551
Plain Region	97.81	1.68	0.27	0.24	1,753,982
Kampong Cham	96.62	2.32	0.40	0.66	278,615
Tbong Khmum	97.32	2.08	0.36	0.23	208,215
Kandal	94.15	4.81	0.79	0.24	211,544
Phnom Penh	90.80	7.44	0.74	1.01	33,564
Prey Veng	98.85	0.96	0.11	0.08	423,159
Svay Rieng	99.37	0.45	0.11	0.07	219,871
Takeo	99.55	0.24	0.07	0.15	379,014
Tonle Sap Lake Region	97.58	1.77	0.50	0.15	1,148,610
Banteay Meanchey	97.55	1.84	0.50	0.11	140,209
Battambang	94.57	4.41	0.83	0.19	191,176
Kampong Chhnang	99.03	0.43	0.29	0.25	212,923
Kampong Thom	98.55	1.18	0.18	0.10	230,841
Pursat	99.47	0.36	0.12	0.05	111,146
Siem Reap	97.26	1.84	0.71	0.19	202,234
Otdar Meanchey	98.18	0.71	1.08	0.03	48,889
Pailin	85.83	10.49	3.31	0.37	11,192
Coastal Region	99.22	0.48	0.20	0.10	325,178
Kampot	99.70	0.18	0.05	0.06	276,265
Koh Kong	98.19	0.44	0.94	0.43	16,458
Preah Sihanouk	93.93	4.15	1.52	0.40	20,690
Kep	98.60	1.10	0.25	0.06	11,765
Plateau and Mountainous Region	98.16	1.13	0.41	0.30	503,781
Kampong Speu	99.73	0.18	0.04	0.05	312,858
Kratie	94.05	4.38	1.24	0.33	69,725
Mondul Kiri	92.21	4.42	2.54	0.82	12,072
Preah Vihear	97.60	1.35	0.82	0.23	45,141
Rattanak Kiri	97.46	1.84	0.50	0.20	41,351
Stung Treng	94.61	0.79	0.92	3.69	22,634

Source: NIS, CAC Core Module 2013.

The highest percentage of rented free parcel was reported in the Tonle Sap Lake Zone (0.50 percent) followed by the Plateau and Mountainous Region (0.41 percent). Rented free parcels were found more in Pailin (3.31 percent) and Otdar Menchey (1.08 percent) which were located along Tonle Sap Lake Zone and in Mondul Kiri (2.54 percent) and Kratie (1.24 percent) which was part of the Plateau and Mountainous Zone.

Irrigation refers to purposely providing land with water, other than rain, to improve pastures or crop production. Around 32 percent of the country’s agricultural holdings used irrigation. Among the zones, 44 percent of the agricultural holdings in the Plain Zone used irrigation in growing their crops. Such percentage reported in the Plain even exceeded the national reported percentage. 23 communes in the Plain Zone reported that all their agricultural holdings used irrigation. These communes were situated in Kandal, Kampong Cham, Phnom Penh, Prey Veng and Takeo.

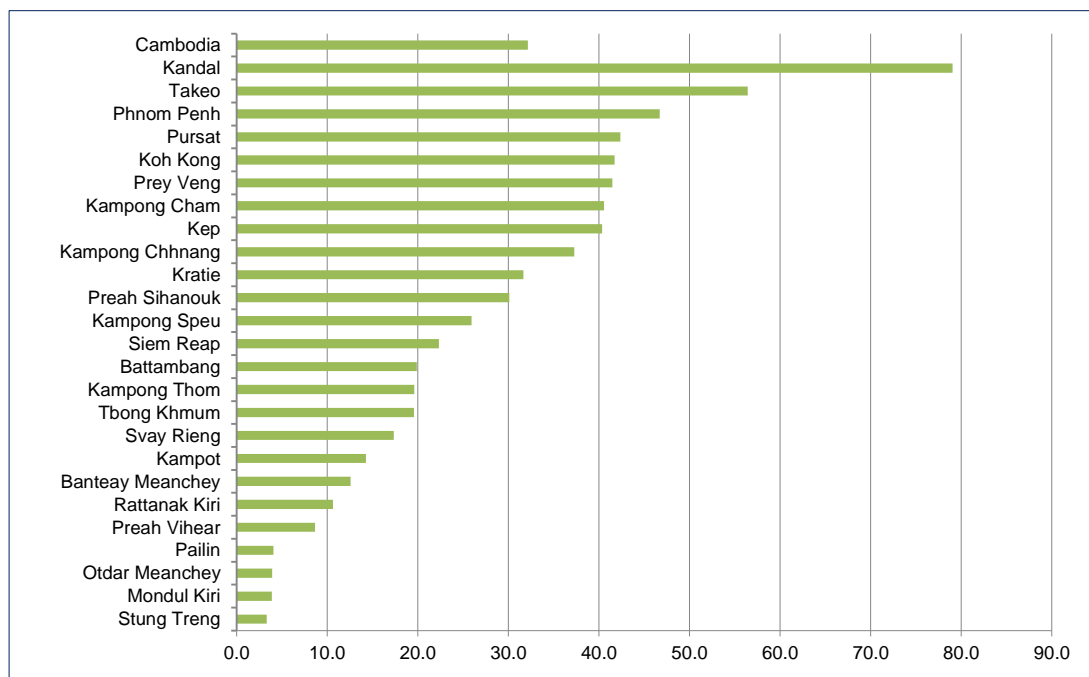
Chart 3.10 Percent of Agricultural Holdings that Used Irrigation, by Zone: 2013



Source: NIS, CAC Core Module 2013.

Of the 25 provinces, Kandal (79 percent) had the biggest percent of agricultural holdings using irrigation; followed by Takeo with 56 percent of its agricultural holdings were irrigated. On the opposite side, five provinces as shown in Chart 3.11 were below the 10 percent mark, which means that in these provinces, the use of irrigation was very limited. Three of these provinces were located in the Plateau and Mountainous Zone while the other two provinces belonged to the Tonle Sap Lake Zone.

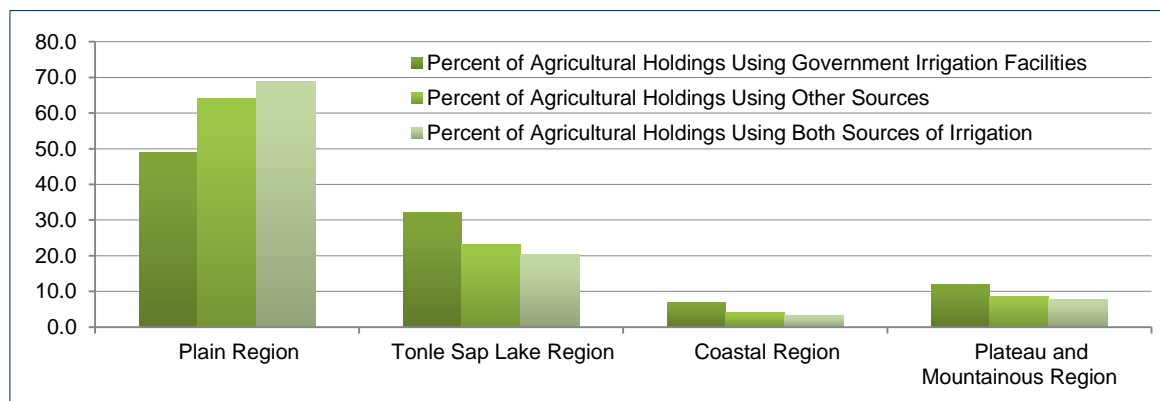
Chart 3.11 Percent of Agricultural Holdings that Used Irrigation, by Province: 2013



Source: NIS, CAC Core Module 2013.

There were only two major sources of irrigation specified during the census undertaking: (a) government irrigation facilities; and, (b) other sources of irrigation such as those facilities built by the households.

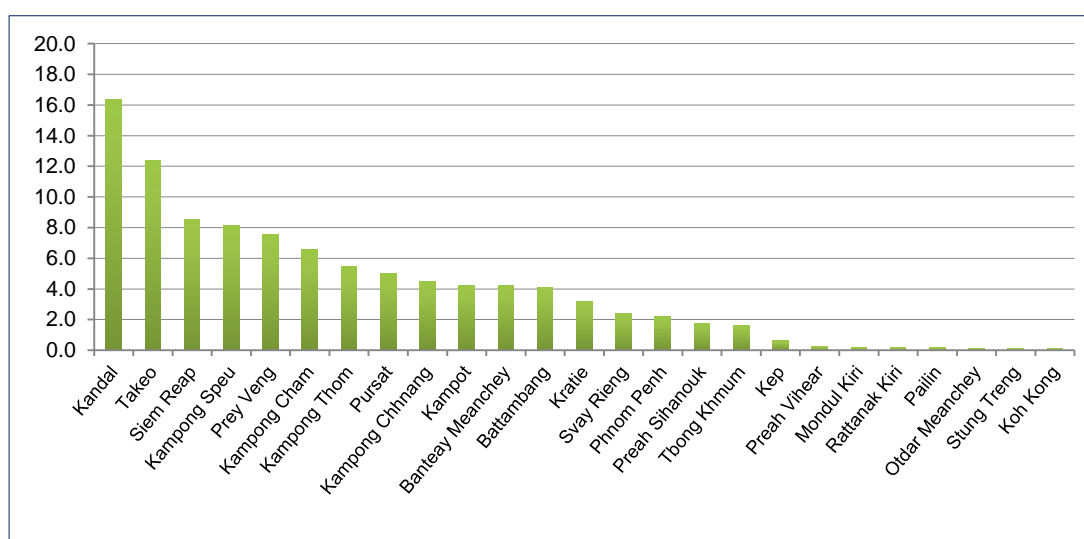
Chart 3.12 Proportions of Agricultural Holdings that Used Irrigation, by Source of Irrigation, by Zone: 2013



Source: NIS, CAC Core Module 2013.

The proportion of the use of different sources of irrigation was higher in the Plain Zone compared with the other three zones. In the Plain Zone, the proportion of agricultural holdings using government irrigation facilities only was lower than the proportion of those using other sources only. There were households in the Plain Zone that used both sources of irrigation in their agricultural activities in the holding and that the reported proportion of these households was even higher than the proportion of those holdings using one source of irrigation. It was notable in the other three zones that there were more users of the government irrigation facilities than the other sources of irrigation.

Chart 3.13a Proportions of Agricultural Holdings that Used Government Irrigation Facilities, by Province: 2013

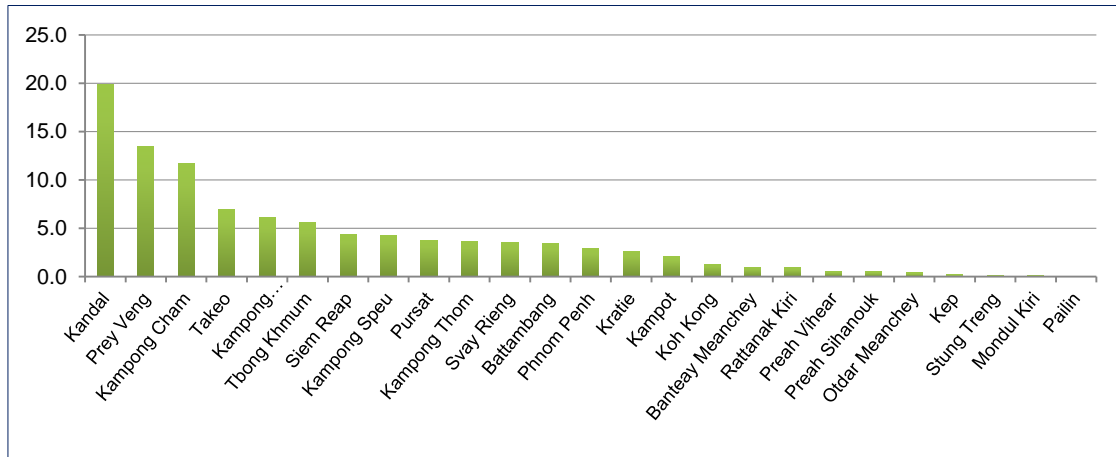


Source: NIS, CAC Core Module 2013.

The agricultural holdings in Kandal (16.4 percent) and Takeo (12.4 percent) shared the highest proportion in using the government irrigation facilities. Proportions lower than 2 percent that used such facilities were reported in Kep, Preah Vihear, Mondul Kiri, Rattanak Kiri, Pailin, Otdar Menchey, Stung Treng and Koh Kong.

The proportions of agricultural holdings in Kandal (19.8 percent), Prey Veng (13.5 percent) and Kampong Cham (11.2 percent) that used other sources of irrigation were more than 10 percent as shown in Chart 3.13b. Preah Vihear, Preah Sihanouk, Otdar Menchey, Kep, Stung Treng, Mondul Kiri and Pailin utilized such sources very slightly.

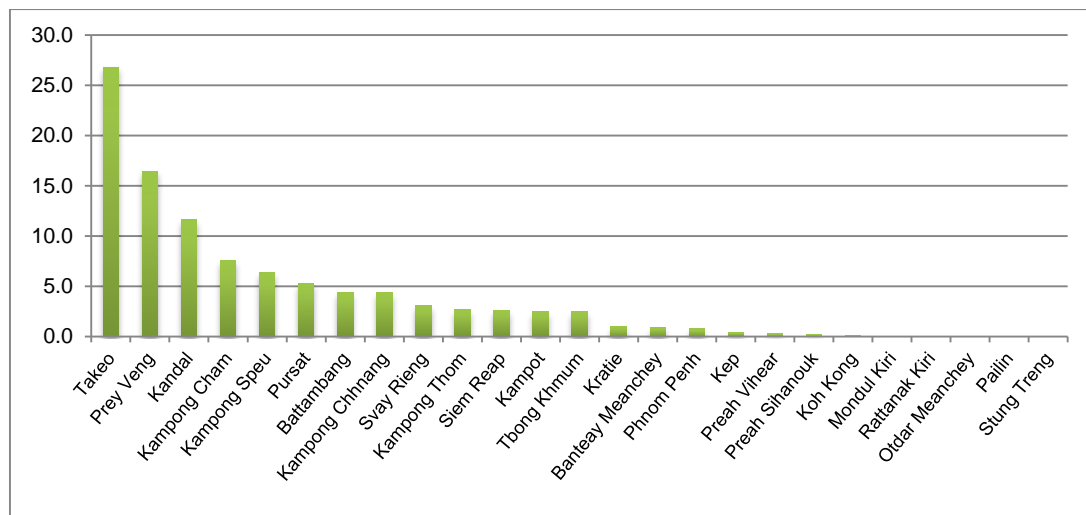
Chart 3.13b Proportions of Agricultural Holdings that Used Other Sources of Irrigation, by Province: 2013



Source: NIS, CAC Core Module 2013.

Above 10 percent of the agricultural holdings in Takeo (26.8 percent), Prey Veng (16.5 percent) and Kandal (11.6 percent) used both types of irrigation facilities. Based on the last three presented graphs, it was clearly indicated that Kandal, Takeo, Prey Veng and Kampong Cham of the Plain Zone were the leading users of irrigation.

Chart 3.13c Proportions of Agricultural Holdings that Used Both Sources of Irrigation, by Province: 2013



Source: NIS, CAC Core Module 2013.

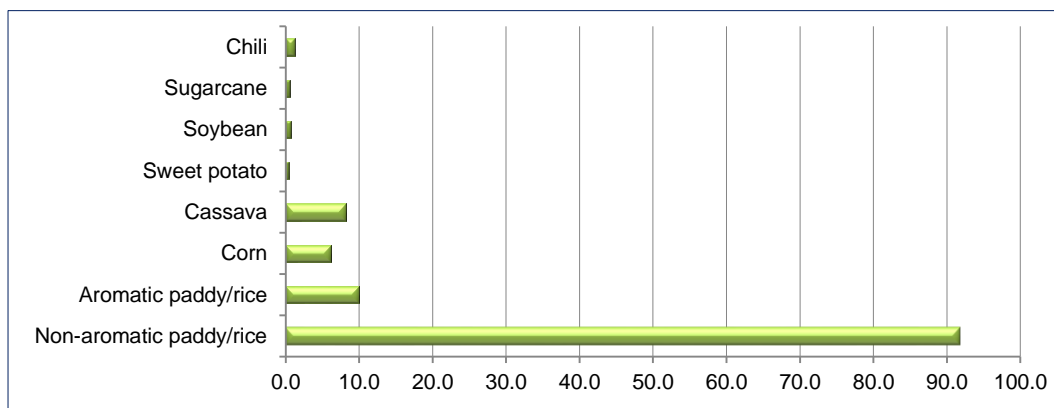


## Chapter 4 Major Crops

Temporary and permanent crops would be best presented in terms of area planted, cropping pattern, cropping period and area harvested. However, such information would be available in the census supplementary modules, which would be included in the final report. Hence, in this chapter only the number of agricultural holdings reporting major temporary crops and permanent crops would be reported.

The major temporary crops reported in Cambodia were paddy, either aromatic or non-aromatic, corn, cassava, sweet potato, soybean and sugarcane. Of these crops, nine out ten agricultural holdings had grown non-aromatic rice while one out ten holdings had planted the aromatic paddy/rice. This was due to the fact that the cost of using non-aromatic paddy was not too expensive compared to the aromatic paddy/rice.

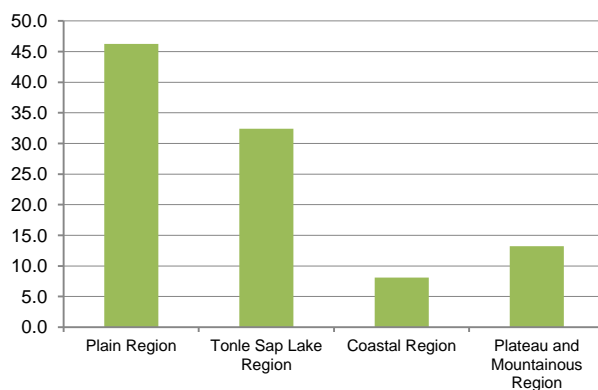
Chart 4.1 Percent of Agricultural Holdings Reporting Major Temporary Crops: 2013



Source: NIS, CAC Core Module 2013.

Among the four zones, the Plain Zone provided the highest proportion (46.3 percent) of agricultural holdings that planted non-aromatic paddy as shown in the chart below.

Chart 4.2a Percent of Agricultural Holdings Growing Non-Aromatic Paddy: 2013



Source: NIS, CAC Core Module 2013.

Chart 4.2b Percent of Agricultural Holdings Growing Non-Aromatic Rice in the Plain Zone: 2013

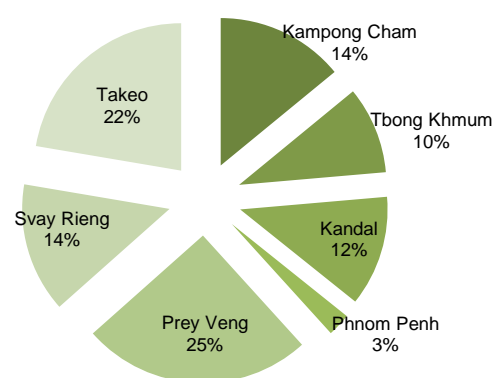


Table 4.1 Top Five Districts with their Leading Commune in Growing Non-Aromatic Paddy/Rice in Prey Veng in 2013

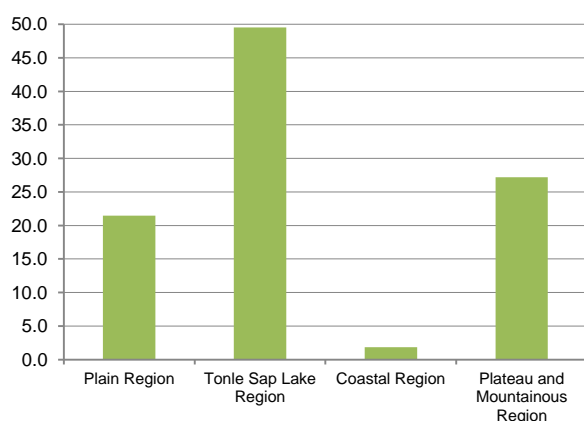
Me Sang	24,207	<b>12.58</b>
Chi Phoch	4,190	2.18
Preah Sdach	23,466	<b>12.20</b>
Rum Check	2,941	1.53
Kampong Trabek	21,312	<b>11.08</b>
Kou Khchak	2,728	1.42
Pea Reang	20,315	<b>10.56</b>
Prey Pnov	4,103	2.13
Svay Antor	19,328	<b>10.05</b>
Pean Rong	2,799	1.46

Source: NIS, CAC Core Module 2013.

The biggest share in growing non-aromatic paddy was from Prey Veng, contributing one-fourth of the total household growers in the Plain Zone. Five districts of Prey Veng reported at least 10 percent of their agricultural holdings that grew non-aromatic paddy.

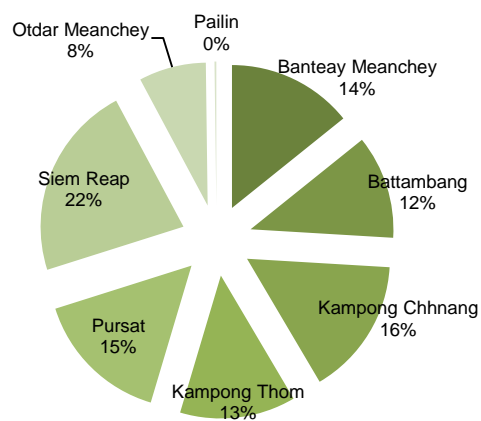
Aromatic paddy growers were reported in high proportion in the Tonle Sap Lake Zone (49.5 percent). The highest contributing province in growing aromatic paddy was Siem Reap (22 percent), particularly in the districts of Chi Kren, Angkor Chum, Puok and Suotr Nikom.

Chart 4.2c Percent of Agricultural Holdings Growing Aromatic Paddy: 2013



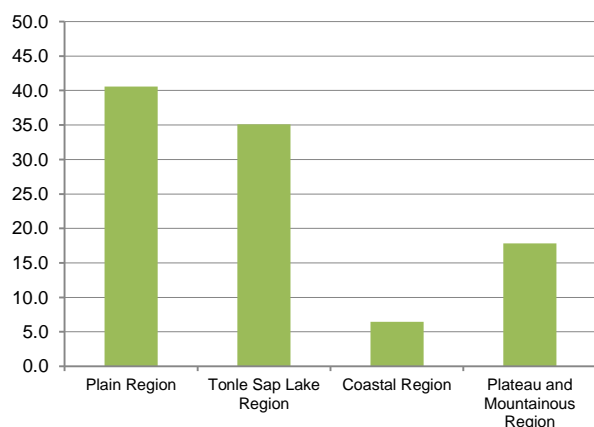
Source: NIS, CAC Core Module 2013.

Chart 4.2d Percent of Agricultural Holdings Growing Aromatic Rice in Tonle Sap Lake: 2013



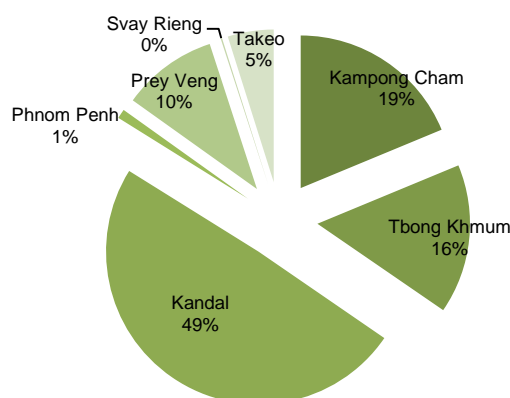
The second major crop grown in the country during the past twelve prior to the core module data collection was corn. The proportion of the agricultural holdings in the Plain Zone (40.6 percent) exceeded the proportions of other three zones, of which the Coastal Zone had the smallest proportion of 6.5 percent.

Chart 4.3a Percent of Agricultural Holdings Growing Corn: 2013



Source: NIS, CAC Core Module 2013.

Chart 4.3b Percent of Agricultural Holdings Growing Corn in the Plain Zone: 2013



The proportion of corn growers in the Tonle Sap Zone was also significantly higher, which was 5.5 percent lower than that of the Plain Zone.

Table 4.2 Top Three Districts that Grew Corn in Kandal in 2013

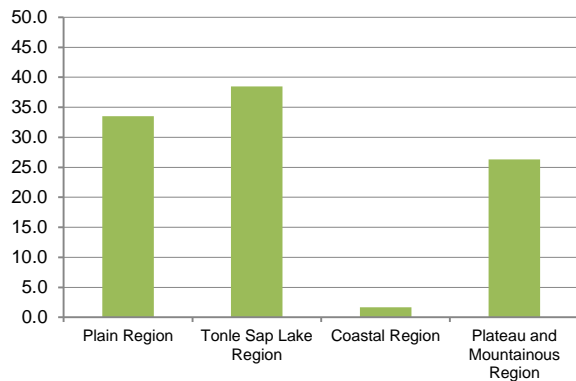
Koh Thum	9,841	<b>44.11</b>
Prek Sdei	1,739	7.79
Leuk Dek	4,036	<b>18.09</b>
Peam Reang	802	3.59
S'ang	3,886	<b>17.42</b>
Koh Khel	858	3.85

Source: NIS, CAC Core Module 2013.

Almost 50 percent of the corn household holdings resided in Kandal; specifically those in Commune Prek Sdei of Koh Thum District, Commune Peam Reang of Leuk Dek District and Commune Koh Khel of S'ang District.

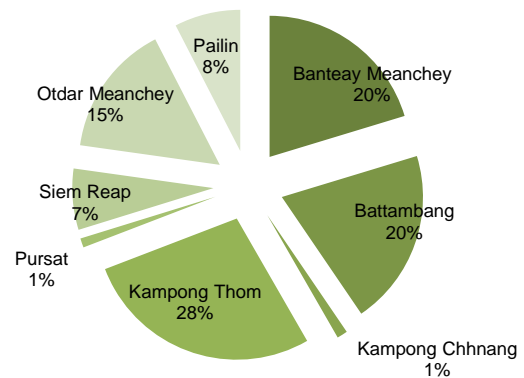
Ninety-eight percent of cassava holders could be found in Tonle Sap Lake Zone (38 percent), Plain Zone (34 percent) and Plateau and Mountainous Zone (26 percent). In the Tonle Sap Lake Zone, Kampong Thom (28 percent) reported the biggest proportion of cassava holdings; followed by Banteay Menchey (20 percent) and Battambang (20 percent). In the Plain Zone, Tbong Khmum (24 percent) had the biggest proportion of cassava holdings. Kratie's cassava holdings led the other provinces in the Plateau and Mountainous Zone in terms of higher proportions.

Chart 4.4a Percent of Agricultural Holdings Growing Cassava: 2013



Source: NIS, CAC Core Module 2013.

Chart 4.4b Percent of Agricultural Holdings Growing Cassava in the Tonle Sap Lake Zone: 2013



The top three districts where cassava was grown widely were Sandan District, particularly, in Sandan and Tumring Communes; Baray District in Bak Sna and Krava Communes; and, Santuk District in Boeng Lvea Commune.

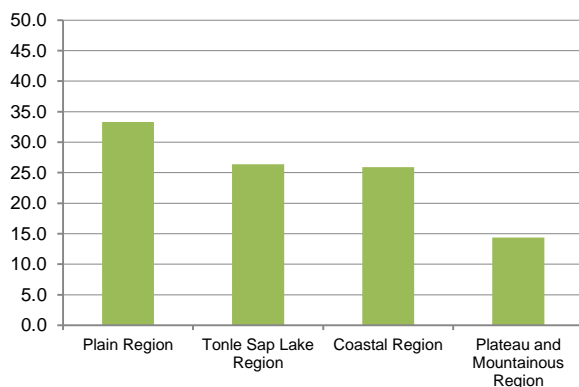
Table 4.3 Top Three Districts in Growing Cassava in Kampong Thom in 2013

Sandan	5,432	<b>34.70</b>
Sandan	958	6.12
Tumring	991	6.33
Baray	4,639	<b>29.63</b>
Bak Sna	856	5.47
Krava	828	5.29
Santuk	2,916	<b>18.63</b>
Boeung Lvea	1,423	9.09

Source: NIS, CAC Core Module 2013.

As can be seen in the Chart 4.5a all zones reported to have more than 10 percent proportion of sweet potato growers; of which, the Plain Zone agricultural holdings had the highest proportion of 33.3 percent; followed by Tonle Sap Lake Zone and Coastal with almost the same proportion of 26 percent; and, lastly by the Plateau and Mountainous Zone with 14.4 percent.

Chart 4.5a Percent of Agricultural Holdings Growing Sweet Potato: 2013



Source: NIS, CAC Core Module 2013.

Chart 4.5b Percent of Agricultural Holdings Growing Sweet Potato in the Plain Zone : 2013

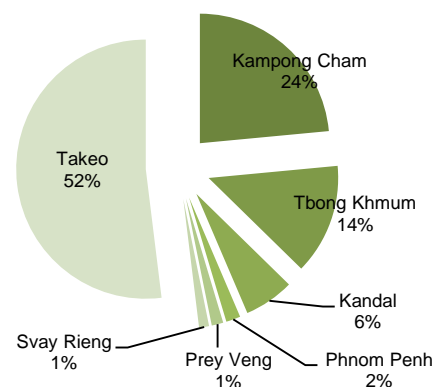


Table 4.4 Leading Districts in Growing Sweet Potato in Takeo in 2013

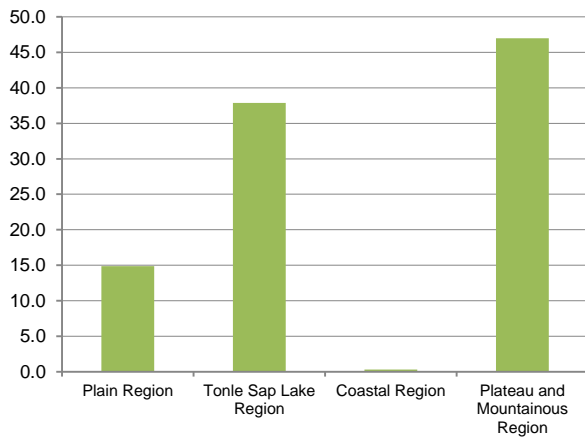
Tram Kak	757	<b>72.72</b>
Sre Ronoung	674	64.75
Bati	259	<b>24.88</b>
Trapeang Sab	175	16.81

Source: NIS, CAC Core Module 2013.

Among the provinces in the Plain Zone, Takeo reported that more than 50 percent of its agricultural holdings planted sweet potato. These growers were found to be residing in Commune Srae Ronoung of Tram Kak District and Commune Trapeang Sab of Bati District.

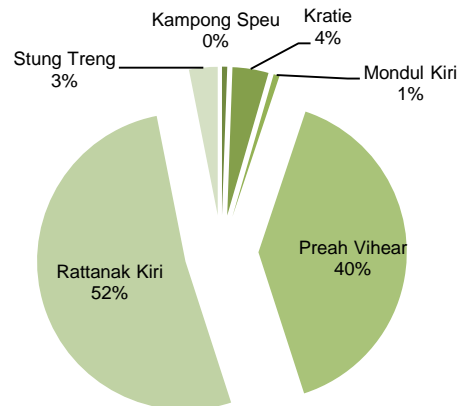
Five in every ten agricultural holdings in the Plateau and Mountainous Zone were engaged in growing soybeans. 92 percent of these soybean growers were located in two provinces: (a) in Rattanak Kiri (52 percent) in which the holdings in the District Koun Mom specifically in Communes Ta Ang, Teun and Trapeang Chres shared the biggest proportions of growers; and, (b) in Preah Vihear (40 percent) where soybean growers in Communes Chamraeun and Ro'ang of District Sangkum Thmei were located.

Chart 4.6a Percent of Agricultural Holdings Growing Soybeans: 2013



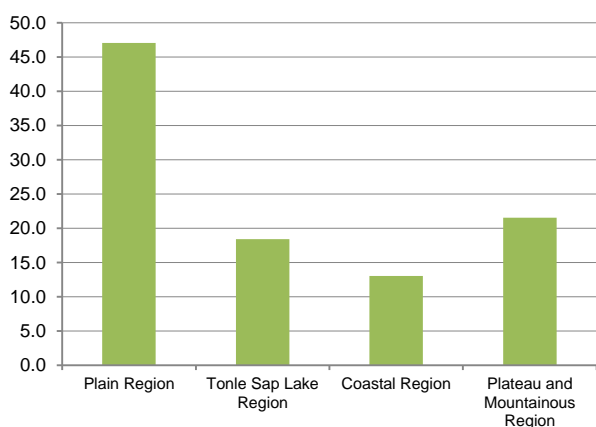
Source: NIS, CAC Core Module 2013.

Chart 4.6b Percent of Agricultural Holdings Growing Soybean in the Plateau and Mountainous Zone: 2013



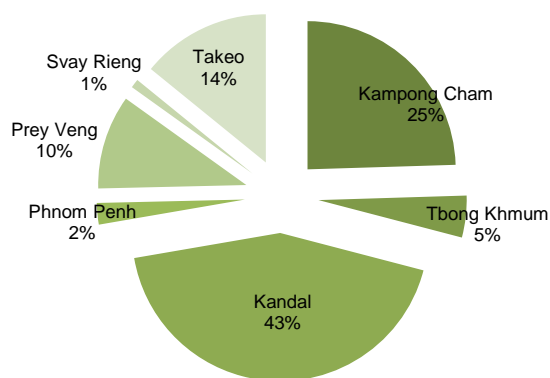
The agricultural holdings in the Plain Zone were the leading growers of sugarcane in the country in terms of having the highest proportion of 47 percent. As can be seen in Chart 4.7a, it differed by 25 percentage points from the proportion of sugarcane holdings in the Plateau and Mountainous Zone.

Chart 4.7a Percent of Agricultural Holdings Growing Sugarcane: 2013



Source: NIS, CAC Core Module 2013.

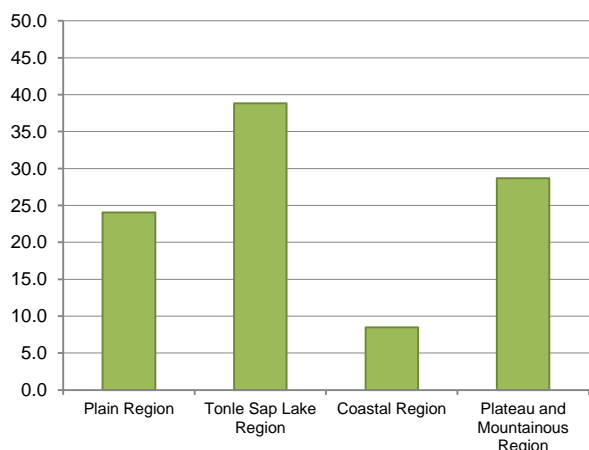
Chart 4.7b Percent of Agricultural Holdings Growing Sugarcane in the Plain Zone: 2013



Kandal (43 percent) and Kampong Cham (25 percent) were the two provinces that reported the biggest number and percent of sugarcane holders in the Plain Zone. The sugarcane household growers were residing in the S'ang District of Kandal and in the Districts Kampong Siem, Krong Suong and Kang Meas of Kampong Cham.

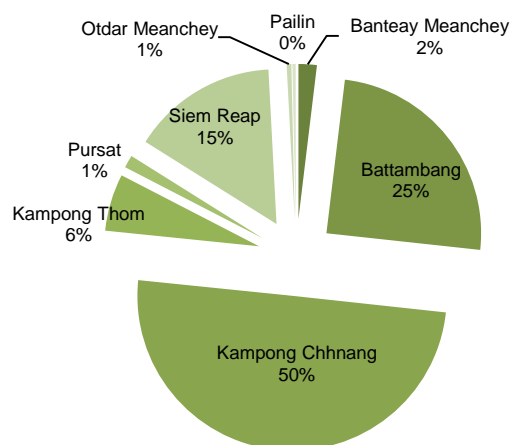
Chilies were widely grown in three zones in Cambodia, in which the Tonle Sap Zone was the leading growers of such crop. Among the provinces in this zone, 50 percent of the chili growing households were reported from Kampong Chhnang. Another 25 percent of the chili holdings were from Battambang.

Chart 4.8a Percent of Agricultural Holdings Growing Chilies: 2013



Source: NIS, CAC Core Module 2013.

Chart 4.8b Percent of Agricultural Holdings Growing Chilies in the Tonle Sap Lake Zone: 2013



If there were temporary crops planted in the agricultural holdings in the country, there were also permanent crops widely grown in almost all the provinces.





Oranges, limes and pineapples were reported grown in big proportions in the Tonle Sap Regions (85 percent), specifically in Battambang and Pursat.

About a third of the total palm tree holding were reported in Kampot Province of the Coastal Zone.



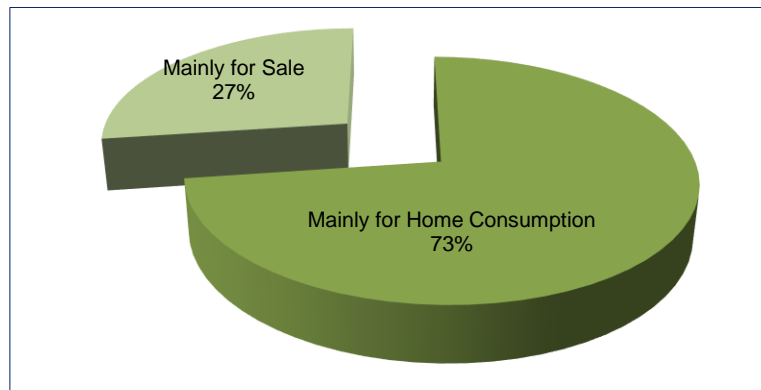
90 percent of the reported agricultural holdings growing rubber were from the Plain Zone; which was shared by the holdings in Tbong Khmum.

Two out of five agricultural holdings in the Plateau and Mountainous Zone reported growing cashew trees. Big proportion of these holdings were located in Rattanak Kiri (24 percent).



In every ten household agricultural holdings growing temporary/permanent crops, seven holdings reported to use their agricultural produce mainly for home consumption. This pointed out the dependence of the rural households on agriculture for food.

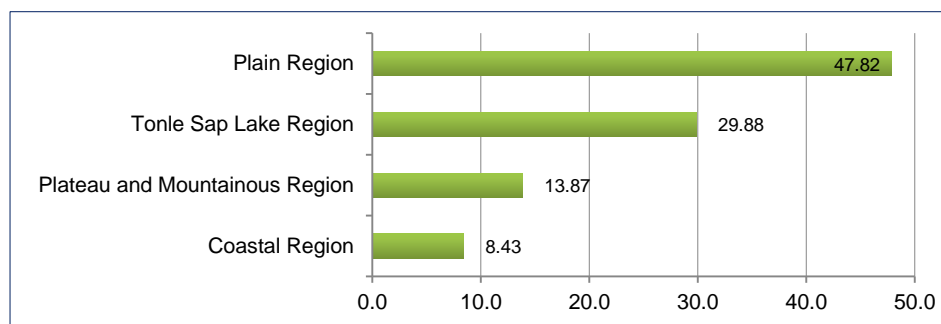
Chart 4.9 Percent of Agricultural Holdings, by Main Purpose of Production: 2013



Source: NIS, CAC Core Module 2013

Those agricultural holdings that relied on crop production as main source of food were from the Plain Zone, reporting a proportion of 47.8 percent. The least proportion was from the Coastal area with 8.4 percent.

Chart 4.10a Percent of Agricultural Holdings Reporting Crop Production as Mainly for Consumption, by Zone: 2013

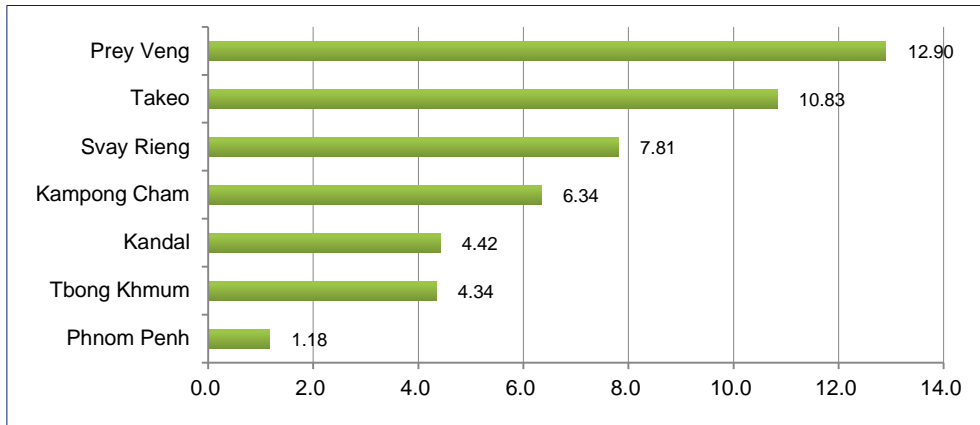


Source: NIS, CAC Core Module 2013

Prey Veng, one of the provinces under the Plain Zone, had the highest proportion of (27 percent) of agricultural holdings that purposely produced crops mainly for consumption. Following in second rank was those in Takeo (23 percent). A proportion of 2.5 percent of the total agricultural holdings in Phnom Penh reported likewise the same purpose of crop production.



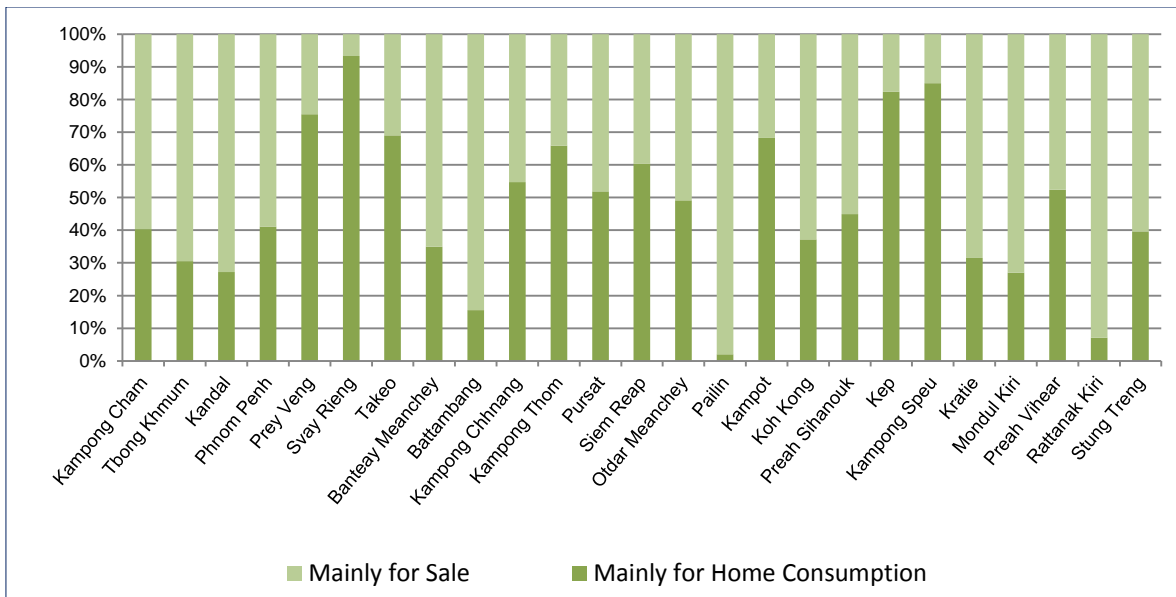
Chart 4.10b Proportions of Agricultural Holdings Reporting Crop Production as Mainly for Consumption in the Plain Zone, by Province 2013



Source: NIS, CAC Core Module 2013

The proportion of the agricultural holdings consuming mainly their produced crops was higher than those mainly selling their crops. The leading provinces with higher proportion of holdings mainly consuming their agricultural produce were Prey Veng, Takeo, Kampong Speu, Svay Rieng, Siem Reap, Kampot, Kampong Thom and Kampong Chhnang. Higher proportions of mainly selling agricultural crops were observed in Battambang, Kandal, Kampong Cham and Tbong Khmum.

Chart 4.10c Proportions of Agricultural Holdings, by Main Purpose of Production, by Province 2013



Source: NIS, CAC Core Module 2013

## Chapter 5

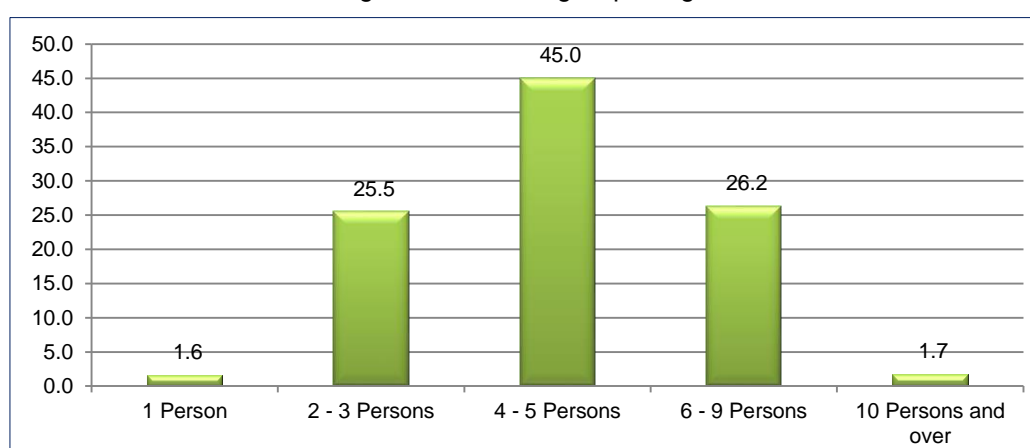
### Agricultural Households and Holders

This chapter presents some characteristic of the agricultural households and holders. An agricultural holder is a person who makes major technical and economic decision in operating and managing the agricultural holding.

#### **Agricultural Households**

About 1.9 million households operated agricultural holdings. These households undertook growing of crops and/or raising livestock/poultry in agricultural lands. The average size of these agricultural households was 4.5 or approximately 5 members. Hence, this was equivalent to 8.5 million household members in the agricultural holdings.

Chart 5.1 Percent of Agricultural Holding Reporting Household Size: 2013



Source: NIS, CAC Core Module 2013.

Chart 5.1 showed a normal distribution of percent of agricultural households by the size of the members. As seen in Chart 5.1, the highest percent was those households with size of 4-5 members. Those households with 1 member had the smallest percentage.

The Plain Zone's agricultural holdings had the highest proportion in different household size as shown in Table 5.1. The smallest percentage was reported by those in the Coastal Zone.

Table 5.1 Proportions of Agricultural Households with Holdings, by Household Size, by Zone: 2013

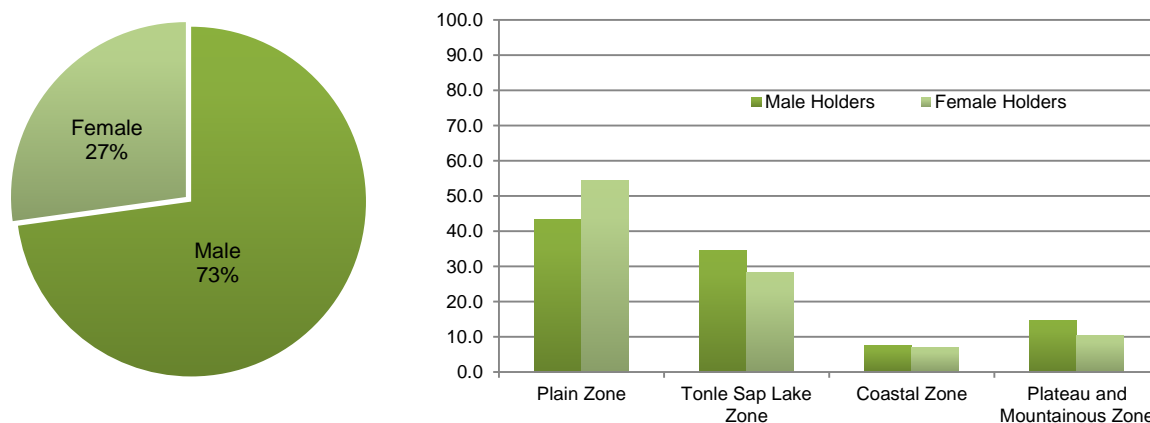
Zone	1 Person	2 - 3 Persons	4 - 5 Persons	6 - 9 Persons	10 Persons and over
Plain Zone	55.5	47.8	46.9	43.7	40.9
Tonle Sap Lake Zone	27.3	32.2	32.3	34.2	37.1
Coastal Zone	8.4	7.6	7.7	6.9	6.0
Plateau and Mountainous Zone	8.8	12.5	13.1	15.2	16.0

Source: NIS, CAC Core Module 2013.

## Agricultural Holders

The agricultural holders reported with lands were managed and operated by 1.4 million (73 percent) male holders and 0.5 million (27 percent) female holders. The sex ratio of these agricultural holders was 268 male holders for every 100 female holders. This ratio proved that the agricultural holding management was dominated by male holders.

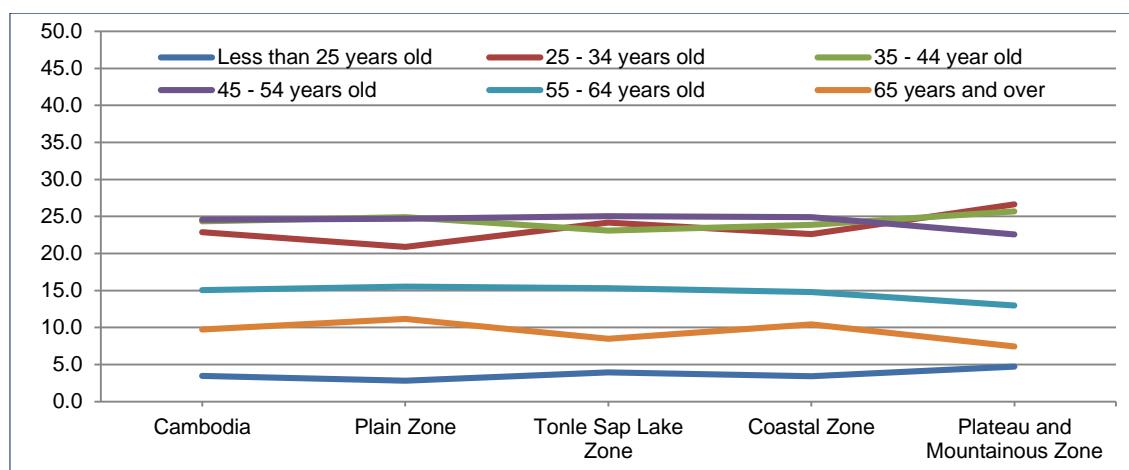
Chart 5.2 Percent of Agricultural Holders, by Sex, by Zone: 2013



Source: NIS, CAC Core Module 2013.

The proportion of female holders in the Plain Zone to the total female holders in the country was higher than that of the male holders in the same zone by 10.6 percentage points. Whereas in the other three zones, the proportion of the male holders to the total male holders in Cambodia was higher than the proportion of their female counterparts.

Chart 5.3 Percent of Agricultural Holders, by Age, by Zone: 2013



Source: NIS, CAC Core Module 2013.

Agricultural holders aged less than 25 years was reported below 5 percent of the total agricultural holders. Among the region, the agricultural holders less than 25 years old in the Plateau and Mountainous Zone and Tonle Sap Lake Zone had higher percent than the percentage at the national level.

Those agricultural holders belonging to the age group “25-34 years old”, “35-44 years old” and “45-54 years old” were reported to be more than 20 percent of the total holders in the country. The Plateau and Mountainous Zone had more agricultural holders aged 25 years old to 44 years old. However, the percentage of the holders that reached the age of 45 years old and over in this zone was smaller than those in the other zones.

The percentage of female holders in all provinces in the Plain Zone (Kampong Cham, Tbong Khmum, Phnom Penh, Prey Veng, Svay Rieng and Takeo) were more than 20 percent of their total agricultural holders. Prey Veng reported the highest percentage of female holders (40 percent) that was nearly close to the percentage of its male holders (60 percent). On the other hand, provinces in mountainous areas reported to have lower percentage of female holders as in the case of Rattana Kiri with the lowest percentage of women managing and operating agricultural holdings.

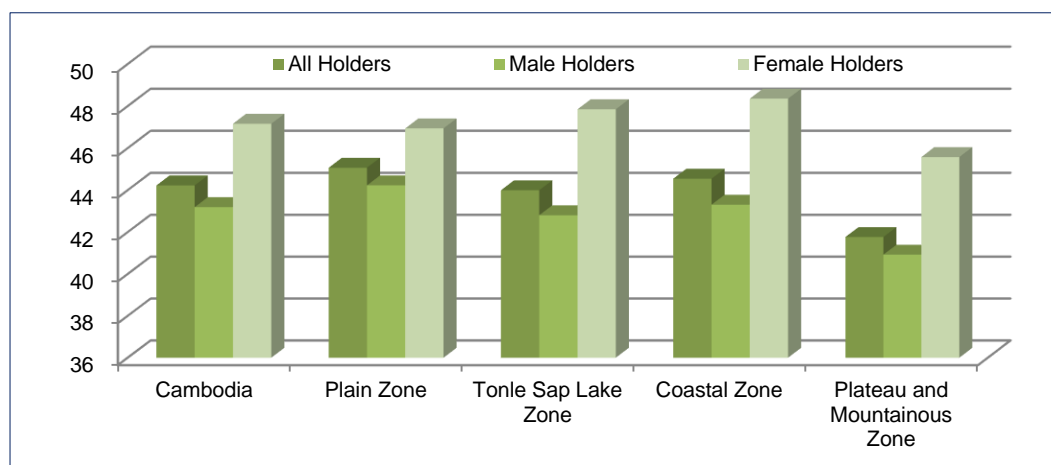
Table 5.2 Percentage of Agricultural Holders, by Sex, by Province: 2013

Province	Male Holders	Female Holders
Kampong Cham	65.1	34.9
Tbong Khmum	69.3	30.7
Kandal	76.7	23.3
Phnom Penh	74.3	25.7
Prey Veng	59.7	40.3
Svay Rieng	72.8	27.2
Takeo	69.4	30.6
Banteay Meanchey	83.9	16.1
Battambang	81.2	18.8
Kampong Chhnang	75.6	24.4
Kampong Thom	71.4	28.6
Pursat	67.7	32.3
Siem Reap	76.7	23.3
Otdar Meanchey	76.4	23.6
Pailin	87.9	12.1
Kampot	76.2	23.8
Koh Kong	64.2	35.8
Preah Sihanouk	63.6	36.4
Kep	82.5	17.5
Kampong Speu	73.2	26.8
Kratie	83.0	17.0
Mondul Kiri	87.2	12.8
Preah Vihear	80.1	19.9
Rattanak Kiri	92.6	7.4
Stung Treng	89.2	10.8

Source: NIS, CAC Core Module 2013.

The median age of the agricultural holders in the country was 44 years old, which means that one-half of the agricultural holders were below 44 years old and another half were above this age. The median age of the female holders in Cambodia was higher than the national median age and the median age of the male agricultural holders. This means that the female agricultural holders in the country were older than the male agricultural holders. At the zone level, the median age of all agricultural holders in the Plane Zone and Coastal Zone surpassed the median age at the national level. The median age of the female holders (47 years old) in all zones was higher than their male counterparts (43 years old). The coastal zone reported half of its female agricultural holders were more than 49 years old.

Chart 5.4 Median Age of Agricultural Holders, by Sex, by Zone: 2013



Source: NIS, CAC Core Module 2013.

The youngest median age of the male agricultural holders was 38 years old in Rattanak Kiri while the oldest median age among the male holders was 47 years old in Kandal. On the other hand, women holders were much older than their counterparts. The youngest age and the oldest age for the female agricultural holders were 42 years old in Preah Vihear and 53 years old in Kep.

Table 5.3 Median Age of Agricultural Holders, by Sex, by Province: 2013

Province	All Holders	Male Holders	Female Holders
Kampong Cham	46	46	47
Tbong Khmum	43	43	44
Kandal	48	47	52
Phnom Penh	46	45	48
Prey Veng	44	43	45
Svay Rieng	45	43	49
Takeo	45	44	47
Banteay Meanchey	46	45	51
Battambang	45	44	50
Kampong Chhnang	44	42	51
Kampong Thom	43	42	45
Pursat	43	42	46
Siem Reap	43	42	48
Otdar Meanchey	41	41	43
Pailin	44	44	47
Kampot	44	43	49
Koh Kong	44	44	44
Preah Sihanouk	46	46	46
Kep	44	42	53
Kampong Speu	42	41	46
Kratie	43	43	46
Mondul Kiri	39	39	43
Preah Vihear	40	39	42
Rattanak Kiri	39	38	44
Stung Treng	42	41	45

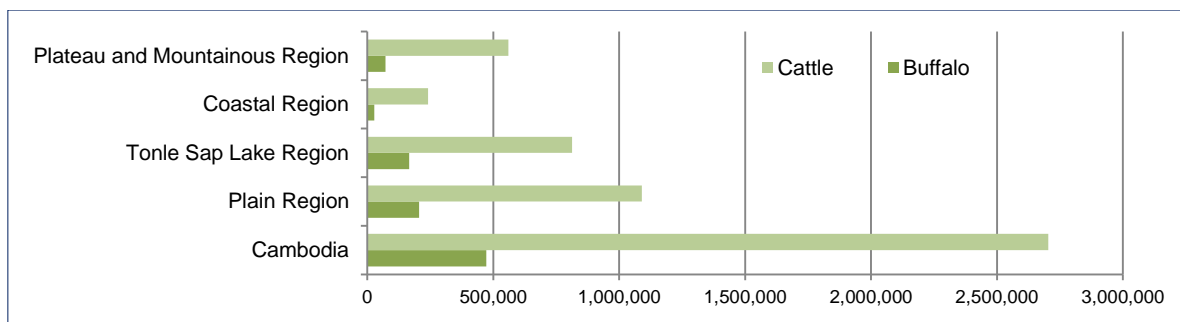
Source: NIS, CAC Core Module 2013.

## Chapter 6

### Livestock and/or Poultry

In Cambodia, there were two types of livestock being raised, the large livestock composed of cattle and buffaloes and small livestock which were pigs and goats. Among the large livestock, the cattle were raised in millions. The country as of the time of the census enumeration had raised 2.7 million cattle. Of these numbers, the Plain Zone raised about 40.3 percent or 1.1 million cattle. Tonle Sap Lake agricultural holdings reported 0.8 million cattle (30 percent) and the Plateau and Mountainous agricultural holdings raising large livestock shared 0.6 million cattle (21 percent). The holdings in the Coastal Zone, though fourth in rank, also contributed significant number of cattle estimated at 0.2 million (8.9 percent).

Chart 6.1 Number of Large Livestock, by Kind, by Zone: 2013

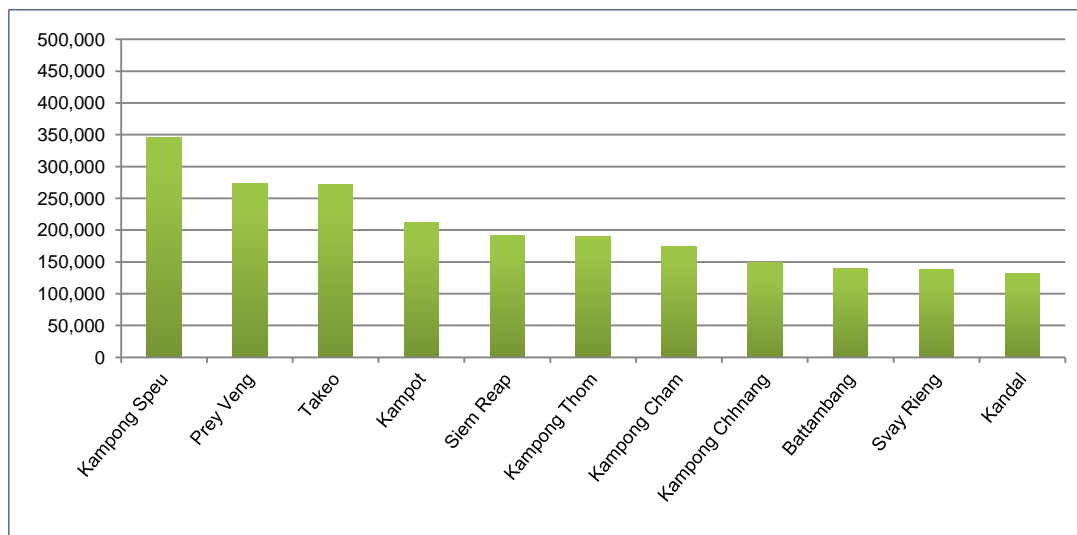


Source: NIS, CAC Core Module 2013.

The total number of buffaloes accounted for as of the time of the census core module enumeration was 472,000. 44 percent of these buffaloes were raised in the Plain Zone and 35 percent in the Tonle Sap Lake Zone.

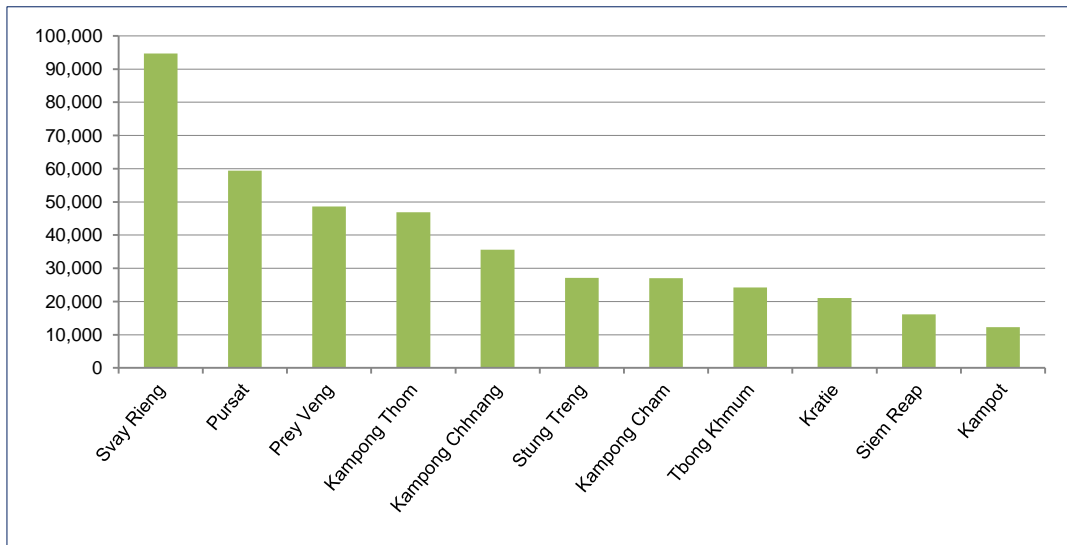
There were eleven provinces that reported more than 100,000 cattle as of the time of the census enumeration. Of these 11 provinces, Kampong Speu raised 345,000 cattle while Prey Veng, Takeo and Kampot reported between 200,000-300,000 cattle.

Chart 6.2a Provinces with Reported More than 100,000 Cattle in 2013



Source: NIS, CAC Core Module 2013.

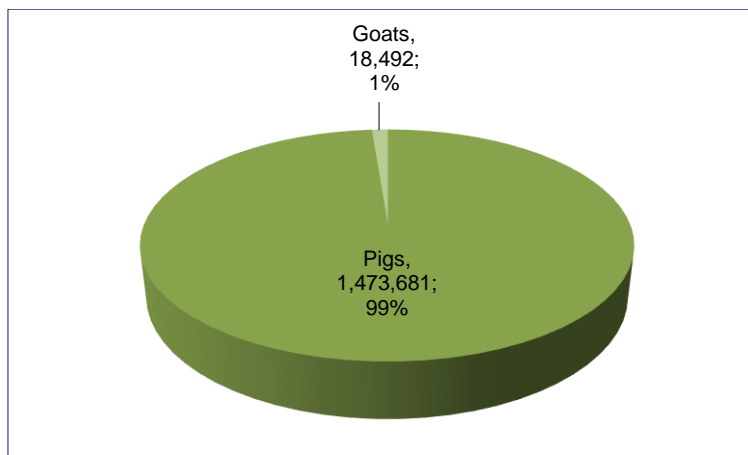
Chart 6.2b Provinces with Reported More than 10,000 Buffaloes in 2013



Source: NIS, CAC Core Module 2013.

At the provincial level, the highest number of buffaloes raised was 95,000 from Svay Rieng; followed by Pursat with 59,000 buffaloes. The other provinces reporting more than 10,000 were presented in Chart 6.2a.

Chart 6.3 Number and Percent of Small Livestock, by Kind: 2013



Source: NIS, CAC Core Module 2013.

The number of pigs raised in the agricultural holdings totaled to 1.5 million or 99 percent of the total small livestock reported as of the time of the census enumeration.

Among the zones, the biggest part of pigs was raised by the agricultural holdings in the Plain Zone. The estimated number of pigs reported in this zone reached 0.7 million. The leading provinces that raised more than 100,000 pigs were Prey Veng, Takeo and Svay Rieng from the Plain Zone, Kampong Speu from Plateau and Mountainous Zone, Kampot from Coastal Zone and Siem Reap from the Tonle Sap Lake Zone.

Chart 6.3a Percent of Raised Pigs, by Zone: 2013

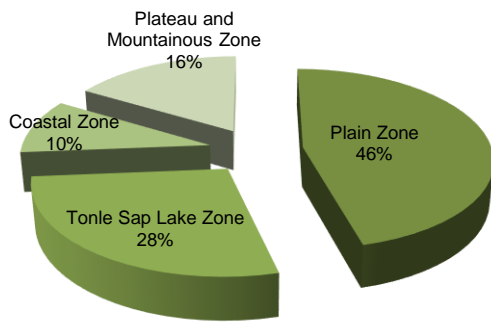
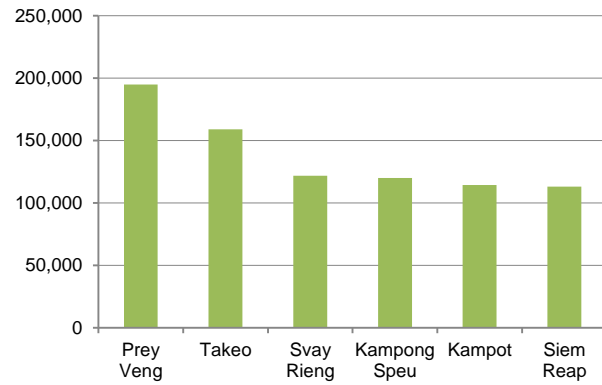


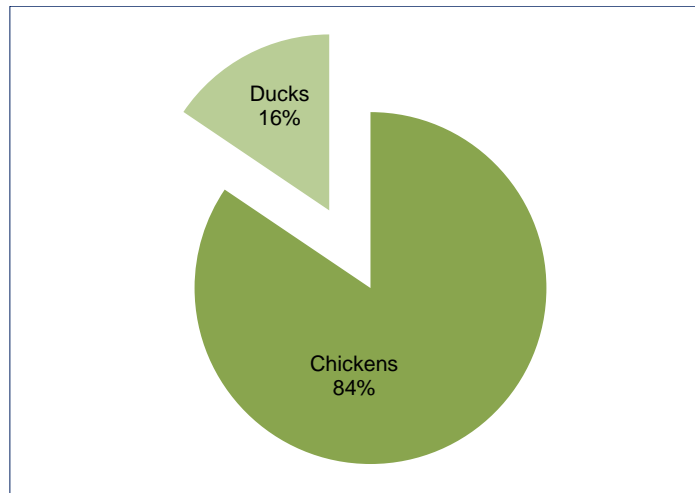
Chart 6.3b Leading Provinces Raising Pigs, by Province: 2013



Source: NIS, CAC Core Module 2013.

Two kinds of poultry presented in this report were chickens and ducks. The rest of the other poultry would be presented in the final report.

Chart 6.4 Percent of Poultry, by Kind: 2013



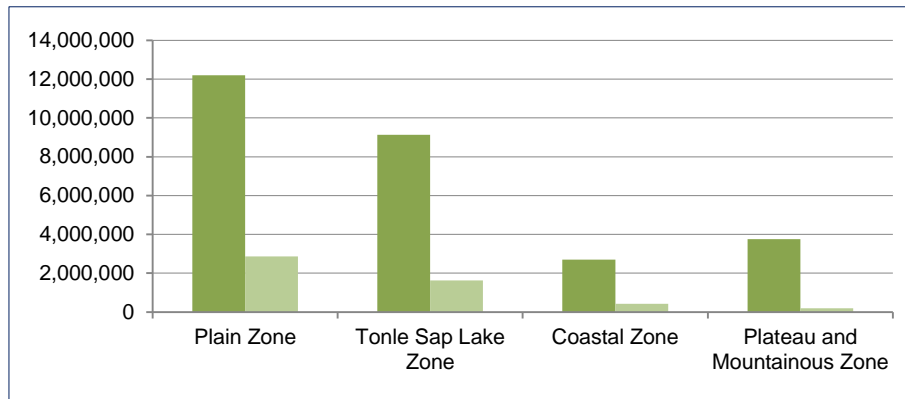
Source: NIS, CAC Core Module 2013.

Chickens and ducks were the most common kind of poultry raised by the agricultural holdings in the country. The number of chickens tallied as of the census time was 28 million while the number of ducks totaled to 5 million.

At the zone level, all provinces reported millions of chicken raised by their agricultural holdings. Ducks were reported in millions by the Plain and Tonle Sap Lake Zones.



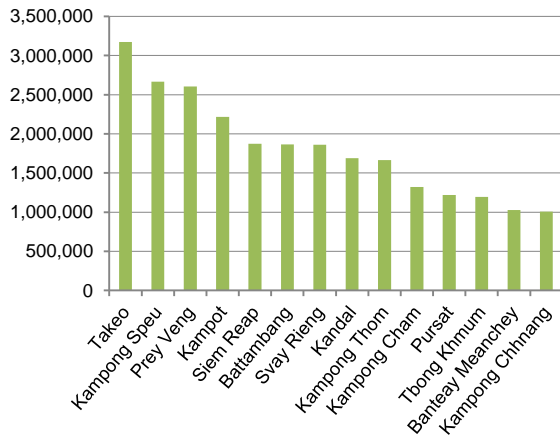
Chart 6.5 Number of Poultry Kept, by Zone: 2013



Source: NIS, CAC Core Module 2013.

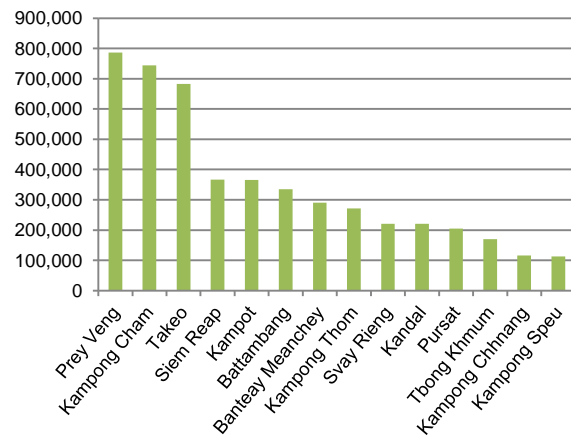
There were 14 provinces that reported millions of chickens raised by their agricultural holdings, of which the top five leading provinces were Takeo, Kampong Speu, Prey Veng, Kampot and Siem Reap.

Chart 6.6a Leading Provinces in Growing Millions of Chickens



Source: NIS, CAC Core Module 2013.

Chart 6.6b Leading Provinces in Growing More than 100,000 Ducks



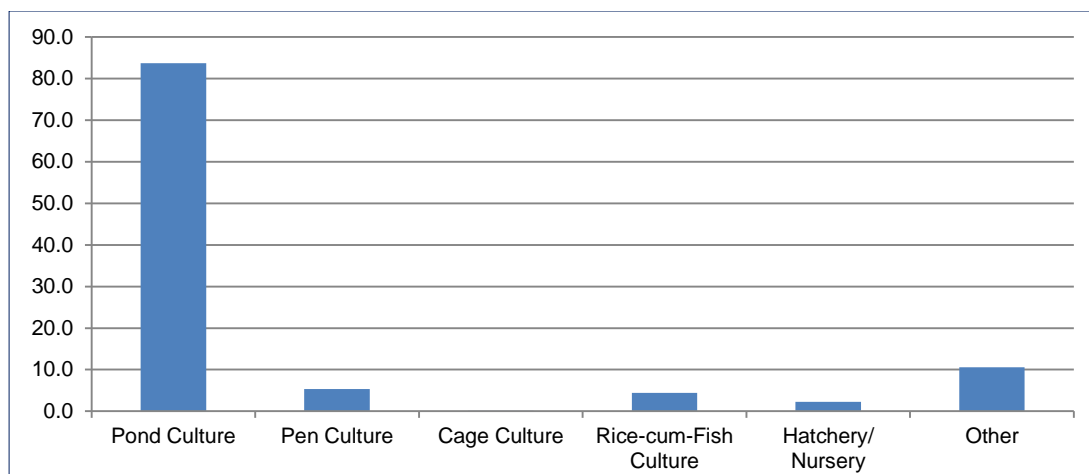
On the other hand, 14 provinces also reported to have raised more than 100,000 ducks. The two charts above showed the leading provinces in growing millions of chickens and thousands of ducks.

## Chapter 7

### Economic Activities Engaged in the Agricultural Holdings

Other economic activities had been conducted in the agricultural holdings. One of these was aquaculture. Aquaculture is the propagating of fish and other aquatic products under controlled condition. There were five distinct types of aquaculture identified to have been engaged in the agricultural holdings. These were pond culture, pen culture, cage culture, rice-cum-fish culture and hatchery/nursery.

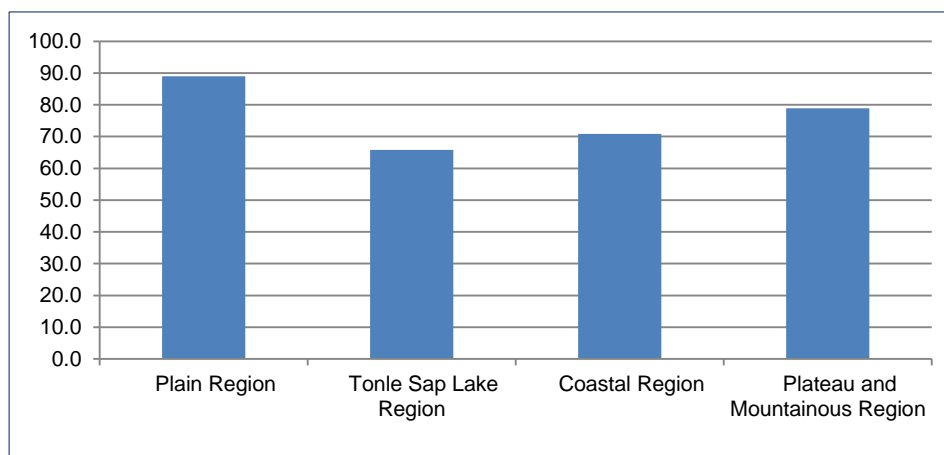
Chart 7.1 Percent of Agricultural Holdings that Engaged in Aquaculture, by Type: 2013



Source: NIS, CAC Core Module 2013

Of the five types of aquaculture, 83.7 percent of the agricultural holders reported to have engaged in pond culture. Some agricultural lands were used solely in building ponds to culture fish and other aquatic. Pond culture can be undertaken in natural or artificial enclosures. But pond culture is different from rice-cum-fish culture. Rice-cum-fish culture is the use of agricultural land for growing rice and rearing fish at the same time.

Chart 7.2 Percent of Agricultural Holdings Reporting Pond Culture, by Zone: 2013

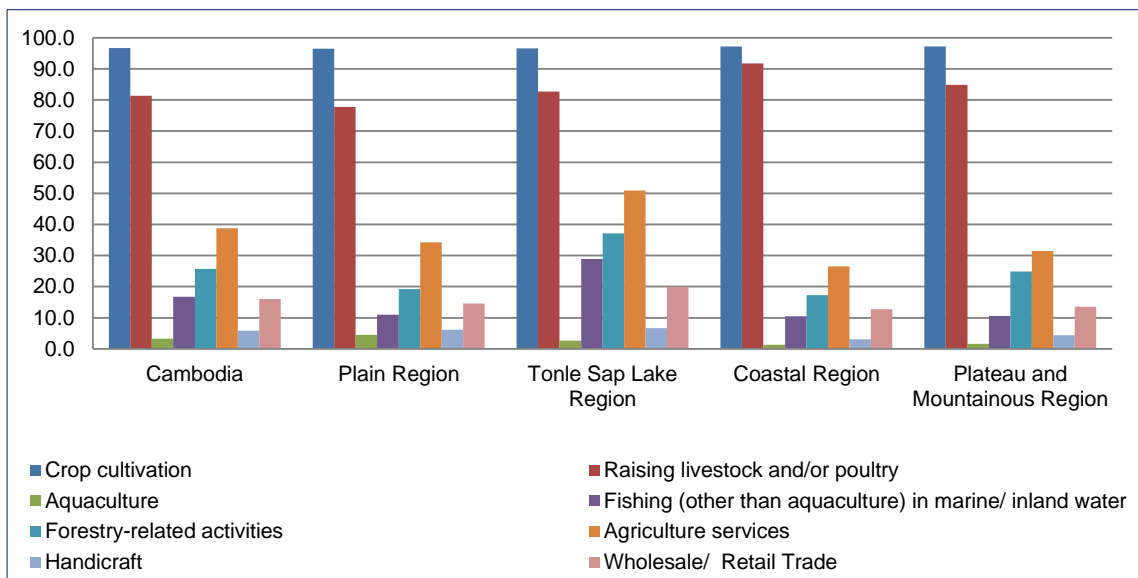


Source: NIS, CAC Core Module 2013

All zones reported the engagement of their agricultural holdings in the pond culture in which the percentage of involvement in such economic activity was not too far from each other. The Plain Zone reported the highest percentage (89 percent) and the Tonle Sap Lake holdings having the smallest (65 percent).

Eight different economic activities were undertaken by the members of the households reporting agricultural holdings. Of these economic activities, the leading ones were crop cultivation, raising livestock and poultry, providing agricultural services, forestry related activities and aquaculture. All of these activities were related to managing and operating agricultural holdings.

Chart 7.3 Percent of Agricultural Holdings that Reported Economic Activities, by Zone: 2013



Source: NIS, CAC Core Module 2013