



KINGDOM OF CAMBODIA

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Cambodia Agriculture Survey 2021 Report 5: Labour and Economy



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



Food and Agriculture
Organization of the
United Nations

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Note on Report Structure

The Cambodia Agriculture Survey 2021 analysis and reporting is split into 5 published written reports and additional statistical materials covering different aspects of the results as follows:

1. Report 1: Methodological Reference Document

This report covers the background information of the survey. It includes the foreword and preface notes; the technical committee involved in the survey; acronyms and abbreviations used in the reports; an executive summary of the analysis from all reports; the scope, coverage and sample design of the data collection.

2. Report 2: Crop Production

This report covers the crop production by household holdings in Cambodia and includes information related to the number of holdings involved in both temporary and permanent crop production; land under agricultural usage; the area of planted and harvested crops; the yield of crops; use of fertilizers, chemicals and irrigation; types of seeds/plant varieties grown; soil types used and effects of erosion; and the value of crop sales.

3. Report 3: Livestock and Poultry Raising

This report covers household holdings involved in the raising of livestock and poultry. Included within the report are the number of holdings engaged in raising livestock and poultry; the total number of animals in Cambodia; the average number of animals per holding; the purpose of raising animals; the value of sales from animals and the related input costs.

4. Report 4: Aquaculture and Capture Fishing

This report covers household holdings involved in aquaculture and capture fishing activities. Included within the report is the number of holdings engaged in different types of aquaculture; the total area devoted to aquaculture; species raised by aquaculture and the volume of them produced; households engaged in fishing activities by water type; species fished; and total catch volume.

5. Report 5: Labour and Economy

This report covers the rotating module of CAS 2021 and includes information on household and external workers on holdings; renting in; purchase and rent prices; expenditures of holdings; value of agricultural output; destinations of agricultural production; wages of external workers; holding profitability; participation in farmer associations; shocks affecting holdings and the responses to them including insurance and credit; loans and savings.

All 5 reports are available for download from the NIS website (available at: <http://www.nis.gov.kh/index.php/km>). These reports aim to provide an overview of the data included within the CAS 2021. They, however, are not fully comprehensive and some questions are not analysed within the scope of these documents. The information is analysed and presented, in most cases, at the national or regional level. Data users are encouraged to



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explore and conduct their own analysis using the full data tabulations disseminated on the NIS website (available at: <http://www.nis.gov.kh/index.php/km/>), the CAMSAT data tables (available at: <https://camstat.nis.gov.kh/>) and the full anonymized microdata (available at: <https://microdata.nis.gov.kh/>).

Labour, Economy, Shocks and Loans.

The CAS 2021 questionnaire included a rotating module with additional questions on the economy. Within this subset of questions were questions aimed at populating the Economic sub-indicators of SDG 2.4.1. This module included many questions related to the incomes and expenditures of the holding. These aforementioned aspects are included in this report. Furthermore, this report also includes results related to labour, shocks and loans due to their related impact on the economics of a holding.

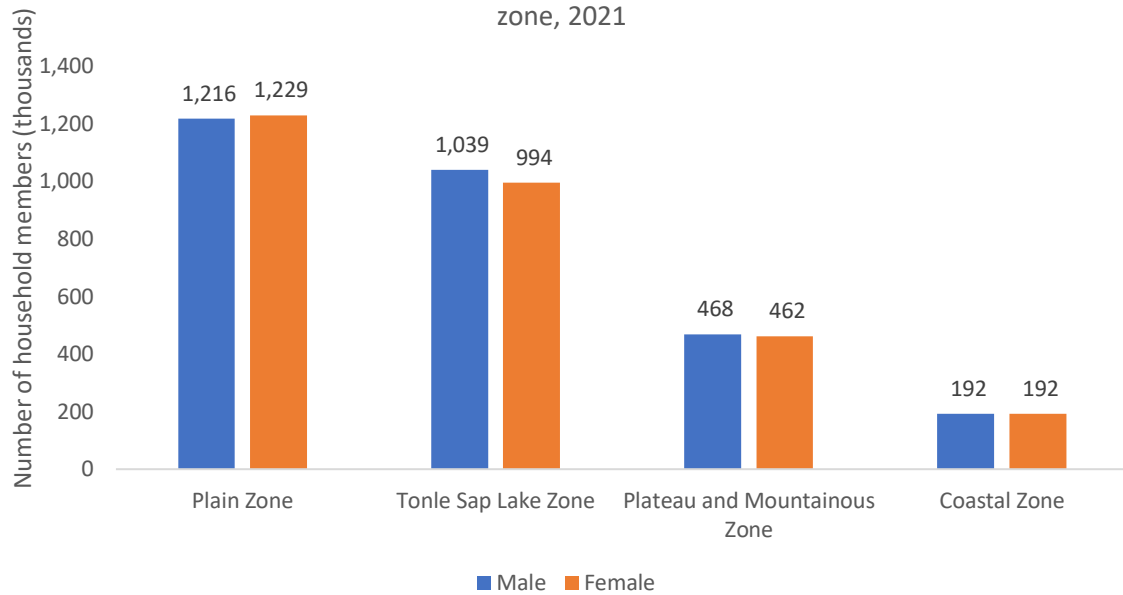


A family of cattle outdoors on the homelot of a smallholder farmer. Source: NIS-MOP photograph, 2023.

Labour

The Plain zone has the largest share of household members working on household agricultural holdings with approximately 1.2 million males and 1.2 million females. This was followed by the Tonle Sap Lake zone, Plateau and Mountainous zone, and Coastal Zone with the smallest number of household members working on holding. The proportion of female and male members is roughly the same in each of the zones. The largest difference between male and female members was in the Tonle Sap Lake zone where approximately 51% of household members working on the holding were male and 49% were female.

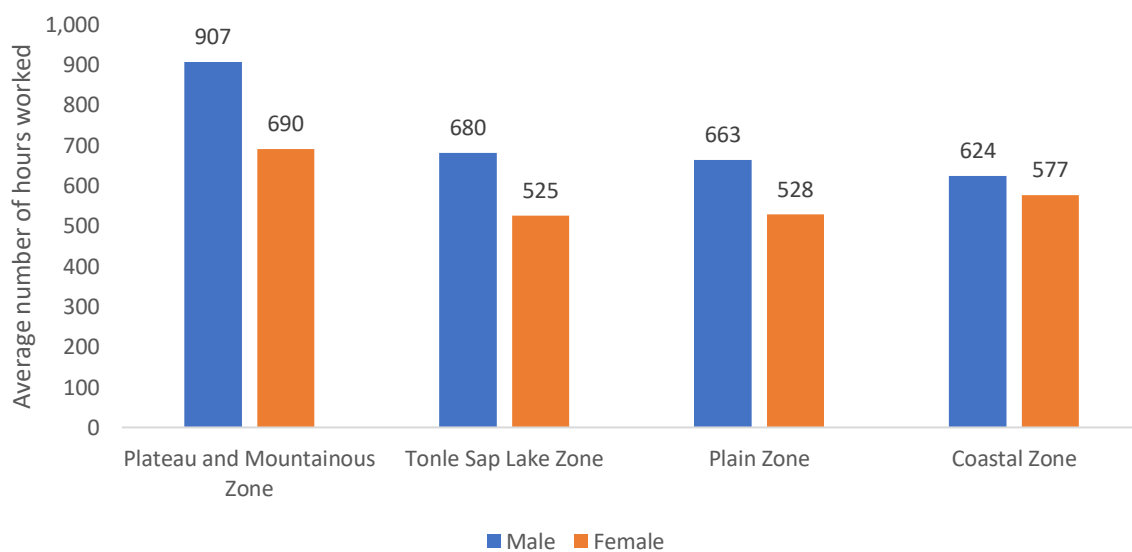
Figure 5.1 Number of household members working on the holding by sex, by zone, 2021



Source: CAS 2021

Figure 5.2 shows the average number of hours worked in the holding by female and male household members. The data shows that males spent more hours working in the holding than females across all four zones of the country. In the Plateau and Mountainous Zone, for instance, male workers spent an average of 907 hours working on the holding compared to the 690 hours spent by female household members. The same pattern of data is shown in the Tonle Sap Lake zone, Plain zone, and Coastal zone.

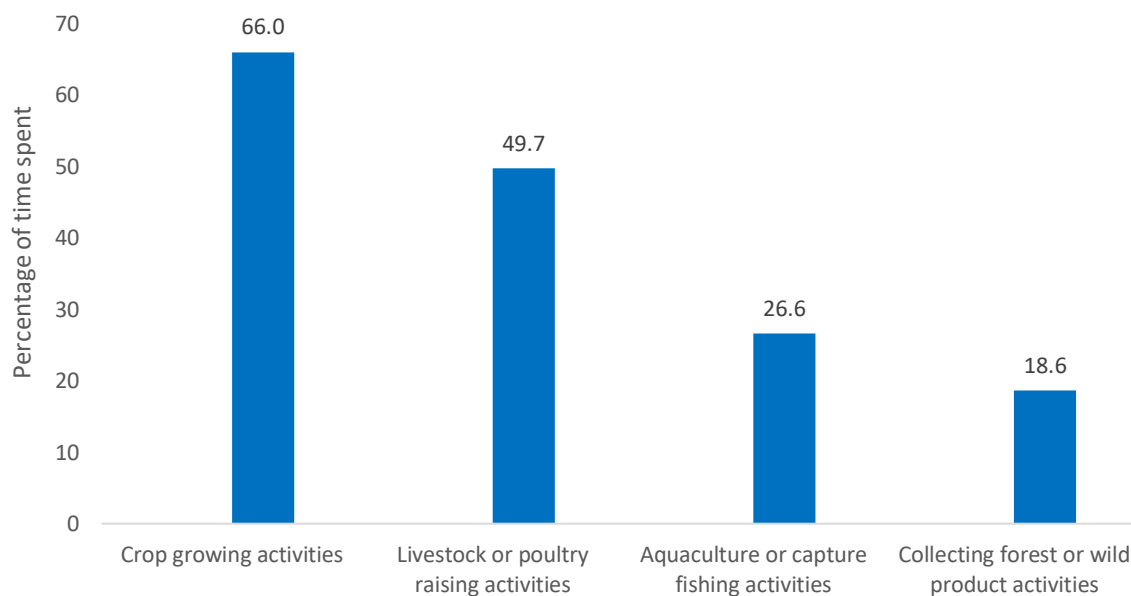
Figure 5.2 Average number of hours worked on the holding per year by sex, by zone, 2021



Source: CAS 2021

Crop growing was the type of agricultural activity that holdings spent the most time working on. In total, 66.0% of the working time of agricultural household holdings was spent on crop growing. Livestock or poultry raising was the second most common activity with 49.7% of holdings time spent working on it, followed by aquaculture or fish catching activities with 26.6% and collecting forest or wild product activities with 18.6%.

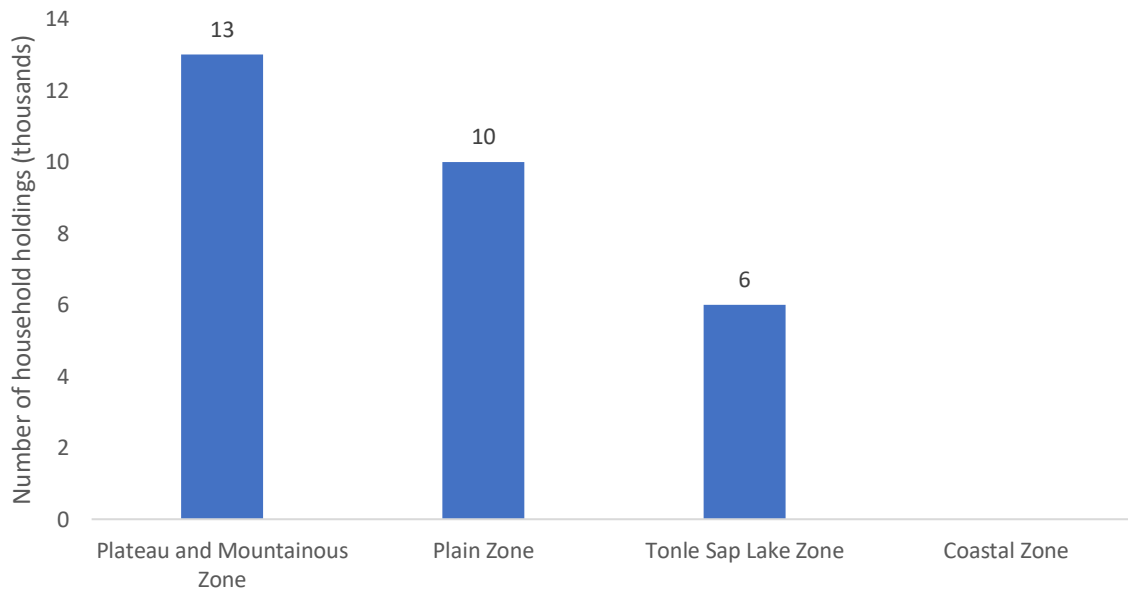
Figure 5.3 Percentage of time spent on each activity, Cambodia, 2021



Source: CAS 2021

Figure 5.4 shows the number of holdings with external workers by different zones. The data shows that the Plateau and Mountainous Zone has the highest number of external workers with 13,000 agricultural household holdings reporting having external workers, followed by the Plain Zone (10,000) and Tonle Sap Lake Zone (6,000). However, there is no data available to present in the Coastal Zone due to the responses not reaching the minimum statistical disclosure control.

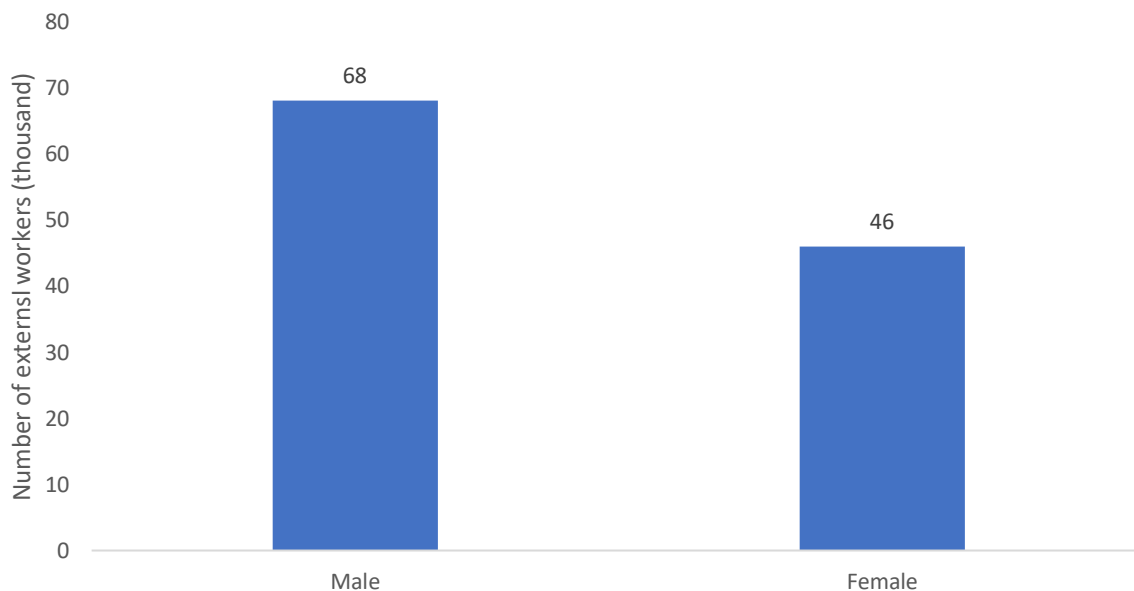
Figure 5.4. Number of holdings with external workers, by zone, 2021



Source: CAS 2021

Figure 5.5 shows the total number of full-time external workers by sex. The results show that the number of male workers (68,000) is higher than the number of female workers (46,000) nationwide.

Figure 5.5 Total number of external workers full time by sex, Cambodia, 2021

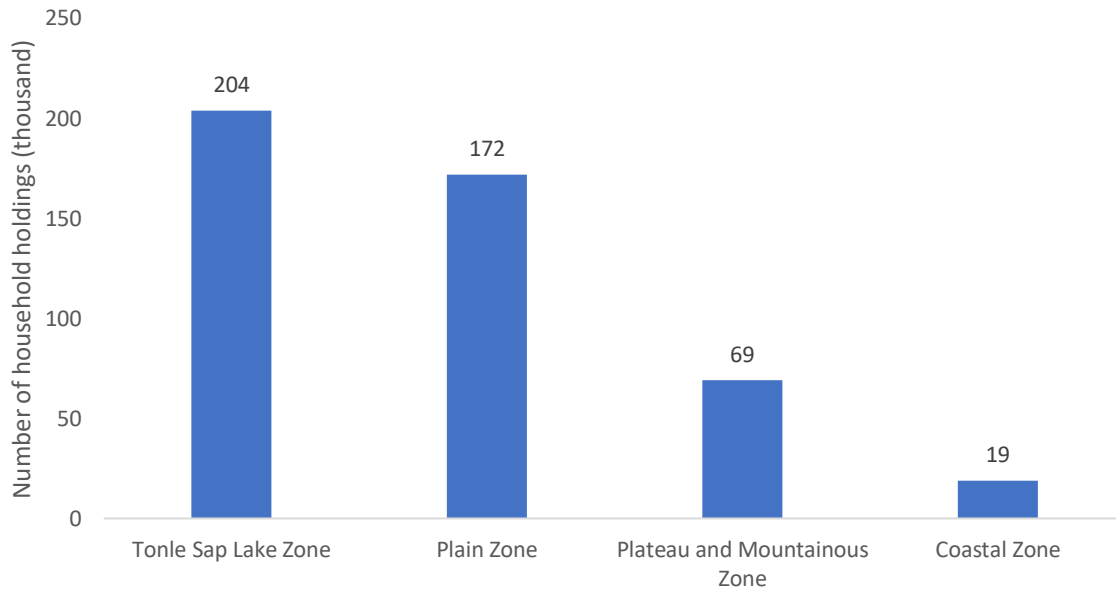


Source: CAS 2021

Figure 5.6 shows the number of agricultural household holdings with occasional workers by zone. The number of holdings with occasional workers is much higher than that of external workers (figure 5.4 above). The Tonle Sap Lake Zone has the highest number of holdings

(204,000) with occasional workers, followed by the Plain Zone (172,000), the Plateau and Mountainous Zone (69,000) and the Coastal Zone (19,000).

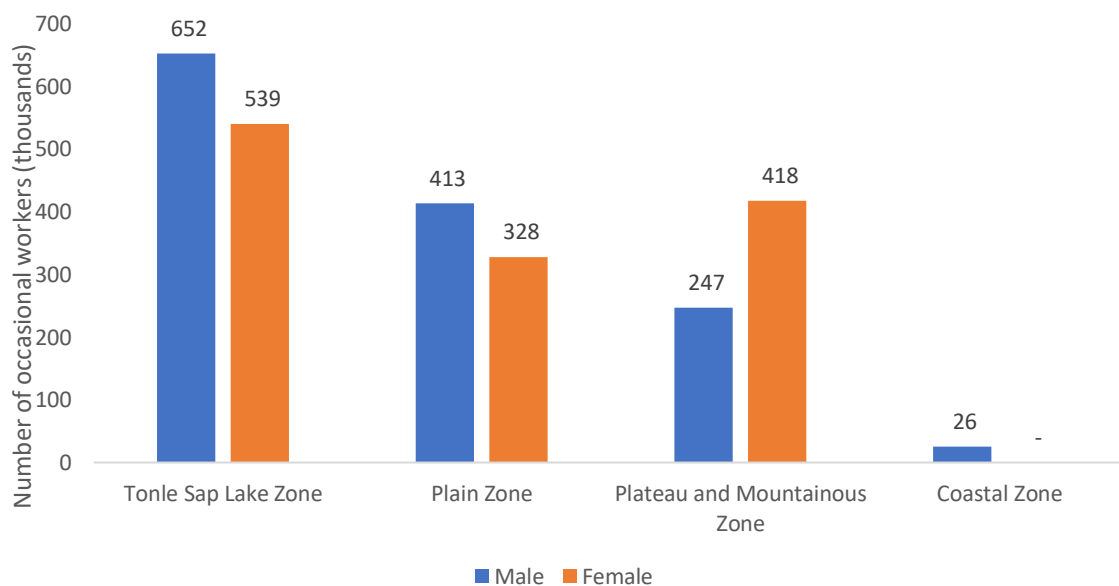
Figure 5.6 Number of holdings with occasional workers, by zone, 2021



Source: CAS 2021

Figure 5.7 shows the number of occasional workers by sex. The Tonle Sap Lake zone and Plain zone both show greater numbers of male than female occasional workers. However, the Plateau and Mountainous Zone shows a higher number of female occasional workers (418,000) than male occasional workers (247,000).

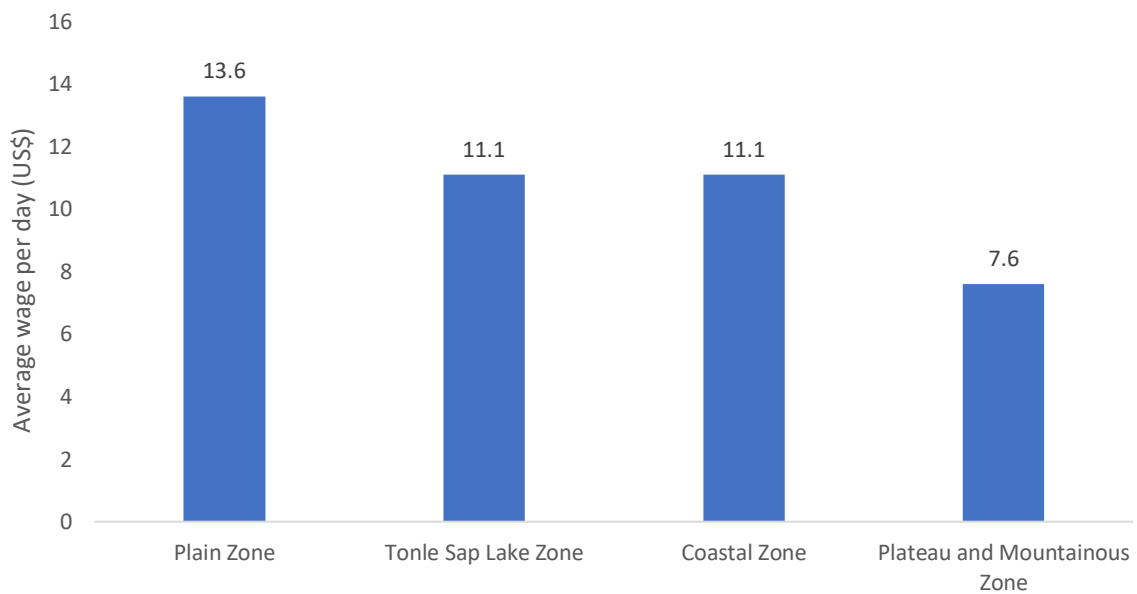
Figure 5.7 Total number of occasional workers by sex, by zone, 2021



Source: CAS 2021

Holdings in the Plain zone reported paying occasional workers the highest wage at \$13.6 per day. Both the Tonle Sap Lake zone and Coastal zones reported paying occasional workers an average of \$11.1 per day. The Plateau and Mountainous zone on the other hand reported substantially lower wages to their occasional workers at an average of \$7.6 per day.

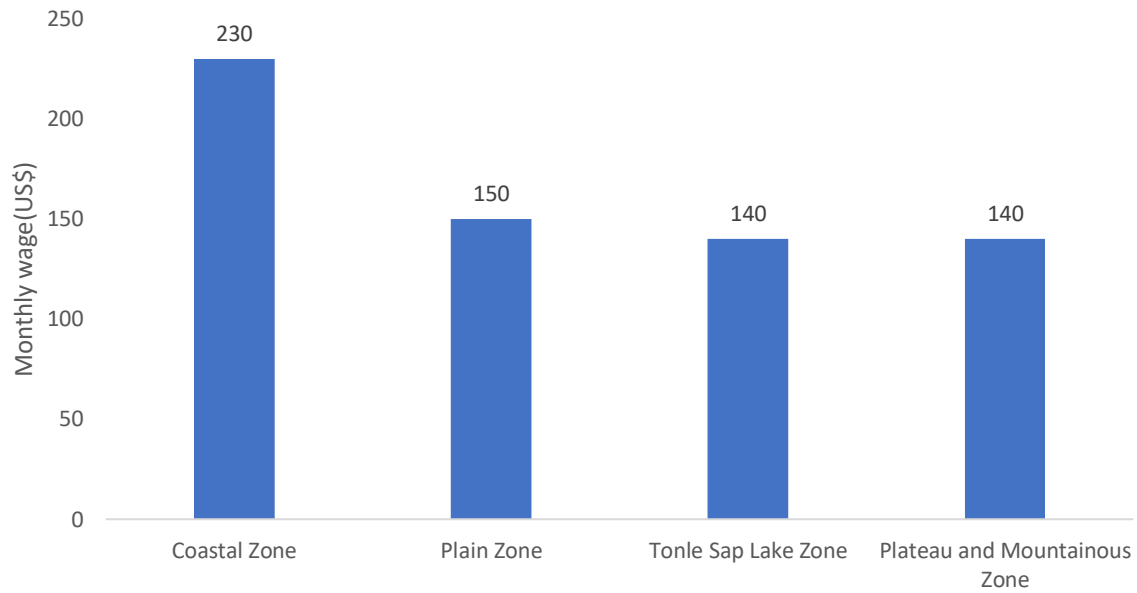
Figure 5.8 Average wage per day for occasional workers, by zone, 2021



Source: CAS 2021

Figure 5.9 shows the average monthly wage for external workers by zone. The external workers in the Coastal Zone are reported to receive on average the highest monthly wage at \$230 per month. The other three zones reported similar monthly wages for external workers at \$150 for the Plain zone and \$140 for both the Tonle Sap Lake zone and the Plateau and Mountainous zones.

Figure 5.9 Average monthly wage of external workers, full time, by zone, 2021



Source: CAS 2021

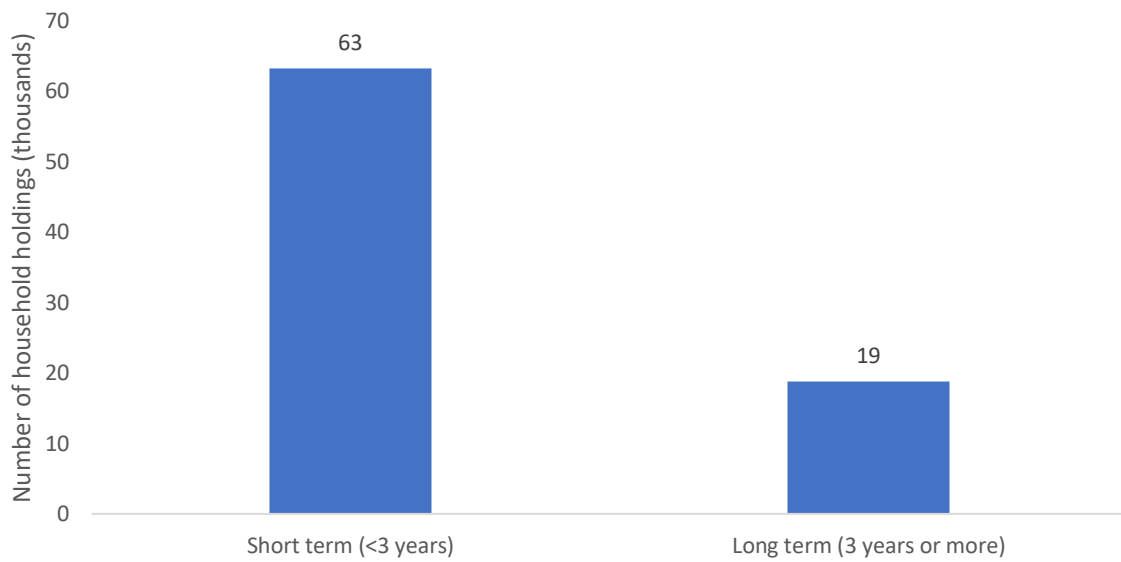
Economy



An enumerator undertaking the interview for CAS 2021. Source: NIS-MOP photograph, 2021.

Most household agricultural holdings (2.183 million out of 2.226 million) own / have owner-like possession of the land they conduct their agricultural activities on. Of those who rent the land they use, most have short-term lease agreements (less than 3 years) compared to those with longer-term rental agreements (3 years or more).

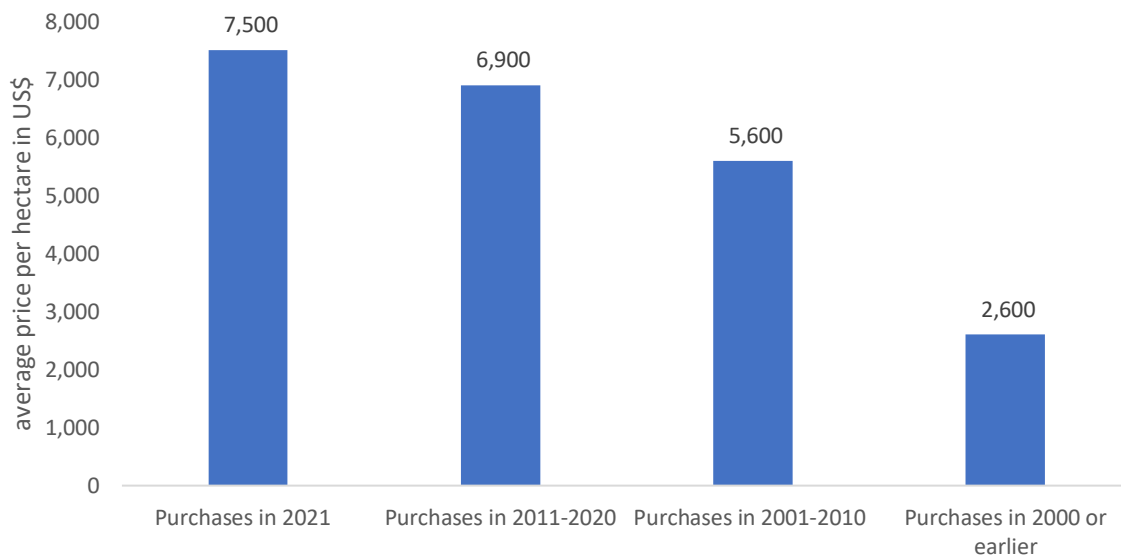
Figure 5.10 Number of holdings with rental arrangement in the short term and long term, 2021



Source: CAS 2021

Data reported from the CAS shows that the price of land has increased over time from \$2,600 USD per hectare in the year 2000 or before, to \$7,500 USD per hectare for purchases made in 2021.

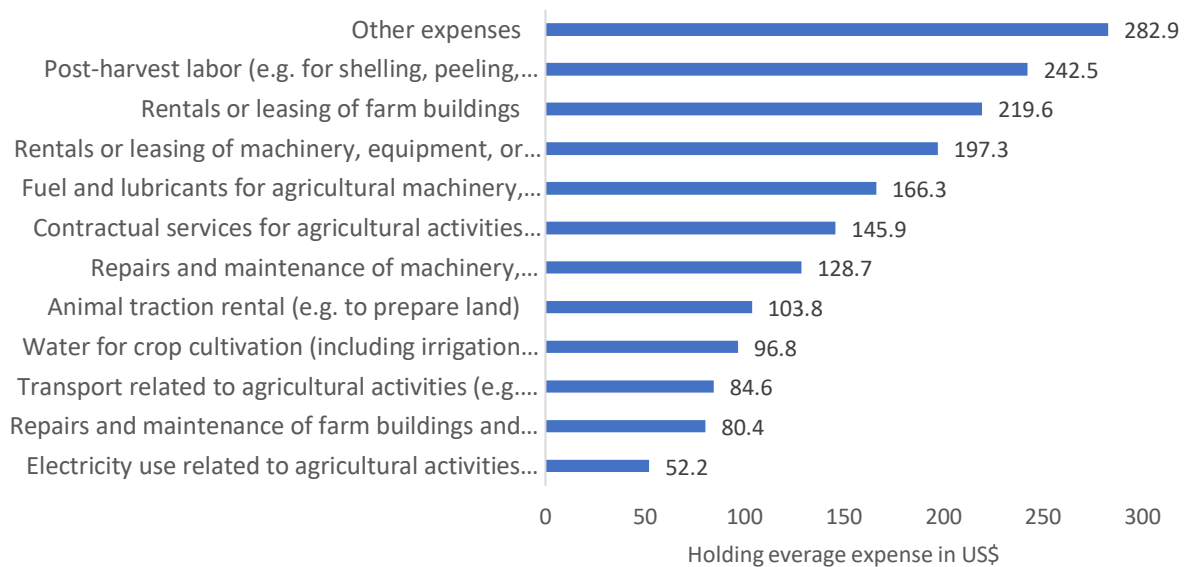
Figure 5.11 Holdings, average purchase price per hectare, by year purchased, Cambodia, 2021



Source: CAS 2021

Figure 5.12 shows the costs incurred by the holding for the whole year of agricultural activities operations. The item the holdings spent most on was 'other expenses' with around \$282.9 spent per year. Following this cost, post-harvest labour (\$242.5), rentals or leasing of farm buildings (\$219.5) and rentals or leasing of machinery, equipment or vehicles (\$197.3) were the next highest expenses.

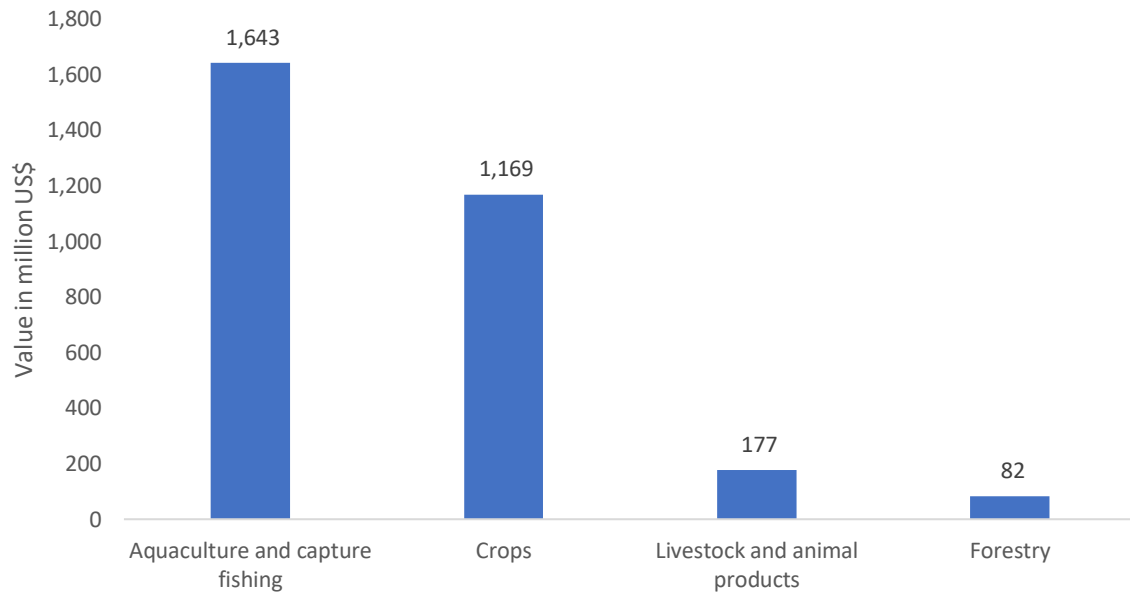
Figure 5.12 Costs incurred by the holding, by expense type, Cambodia, 2021



Source: CAS 2021

Aquaculture and capture fishing generated the most value of outputs at around 1,643 million US dollars, followed by crops at 1,169 million US dollars, livestock and animal products at 177 million US dollars, and forestry with only 82 million US dollars.

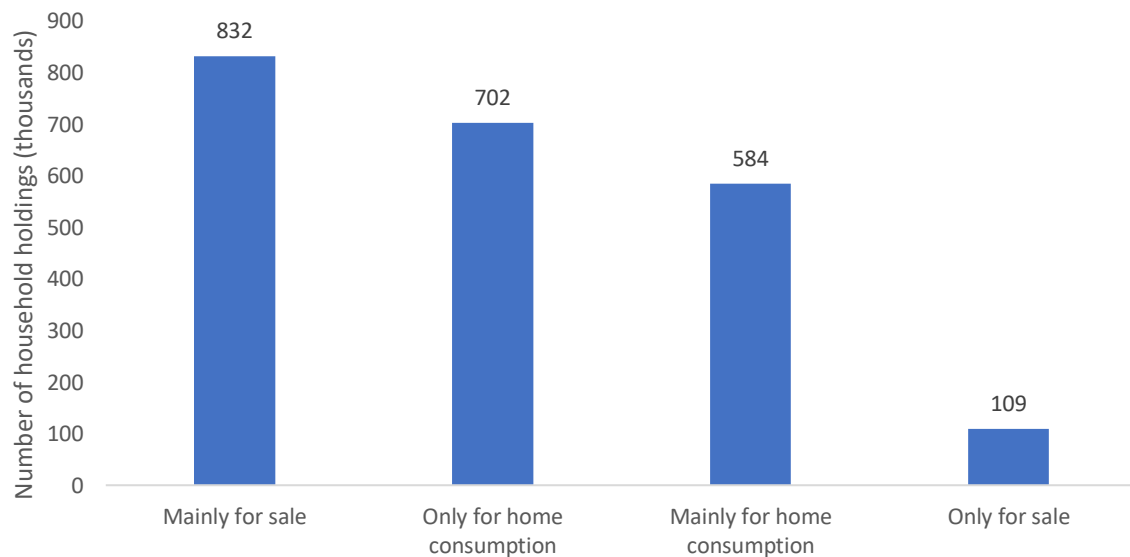
Figure 5.13 Value of agricultural output, by type, 2021



Source: CAS 2021

Figure 5.14 shows that 832,000 agricultural household holdings produce agricultural output mainly for sale, 702,000 holdings produce only for home consumption, 584,000 holdings produce mainly for home consumption, and only 109,000 holdings produce only for sale.

Figure 5.14 Holdings by main intended destination of agricultural production, Cambodia, 2021

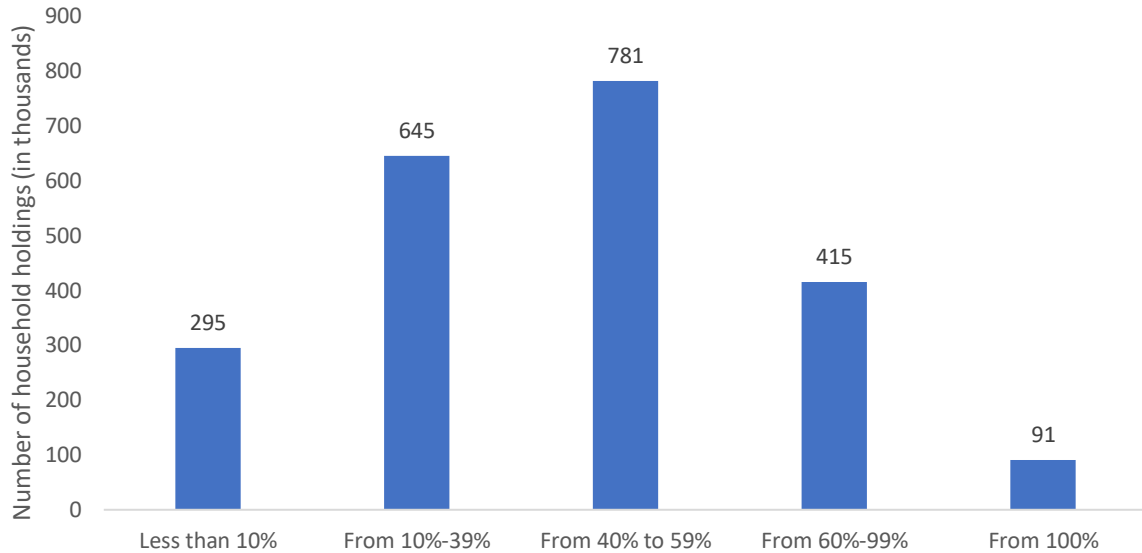


Source: CAS 2021

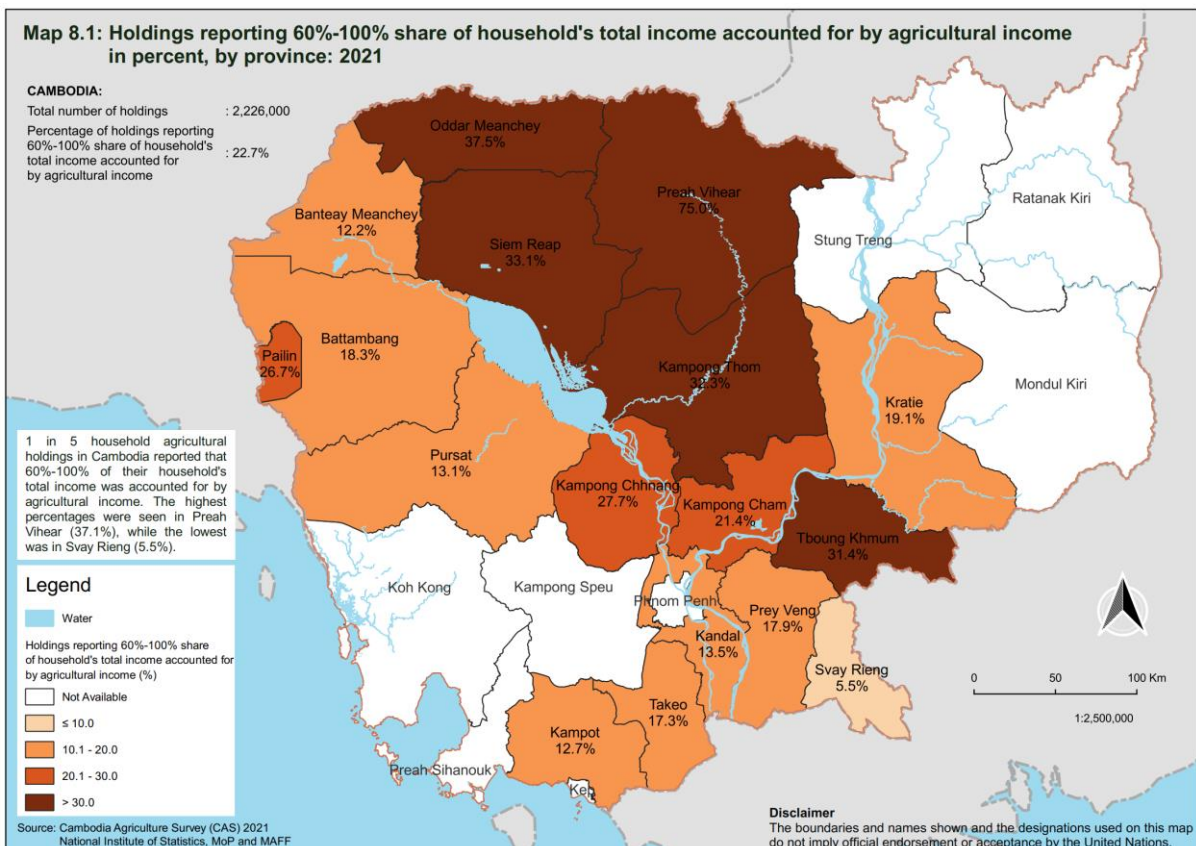
781,000 household agricultural holdings reported around half (40-59%) of their household's income coming from agricultural activities. Only 91,000 holdings reported that their households' total income depended entirely on agricultural outputs. Around three times as

many holdings (295,000) reported that less than 10% of their household income came from agricultural activities.

Figure 5.15 Percentage of agricultural income contribution to household's total income, Cambodia, 2021



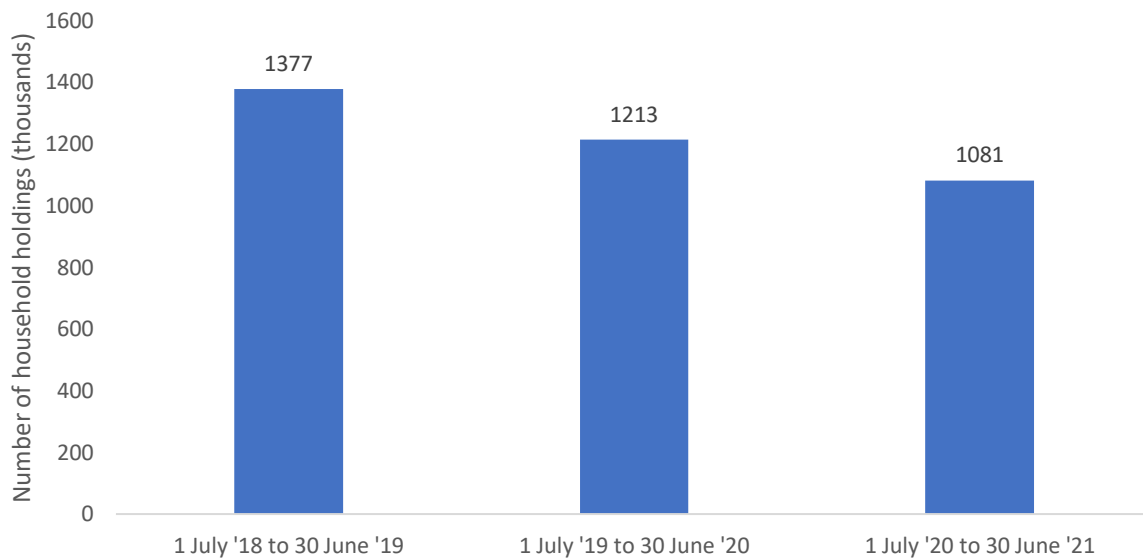
Source: CAS 2021



Source: Cambodia Agriculture Survey 2021 (CAS 2021) Selection of Thematic Maps; NIS-MOP, MAFF 2023.

Since 2019, household agricultural holdings have found it more difficult to make profits. The number of holdings self-reporting profits between 2019 and 2021 has decreased year on year from 1,377,000 holdings in 2018-2019, to 1,213,000 in 2019-2020 and 1,081,000 in 2020-2021. It is suspected that COVID-19 is a significant factor in these difficulties, especially as Cambodia felt most shocks from COVID-19 in the calendar year 2021¹.

Figure 5.16 Number of holdings self-reported as being profitable within each reference year, Cambodia, 2021

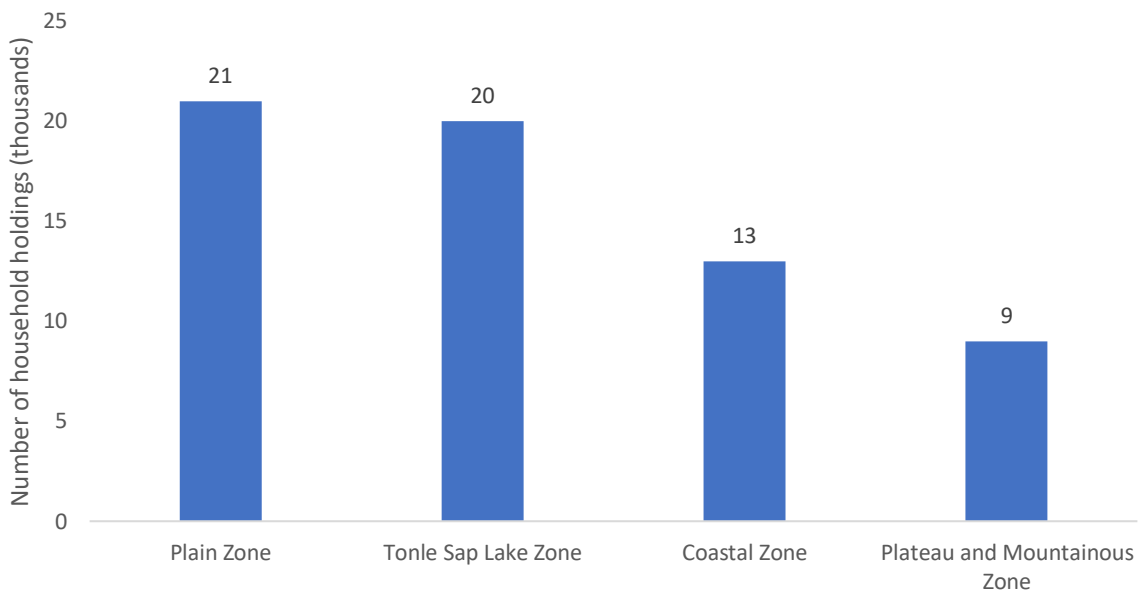


Source: CAS 2021

Figure 5.17 and Figure 5.18 show the participation of holdings in informal and formal (registered with the government) farmers' associations. Both formal and informal farmers' associations are most common in the Plain zone.

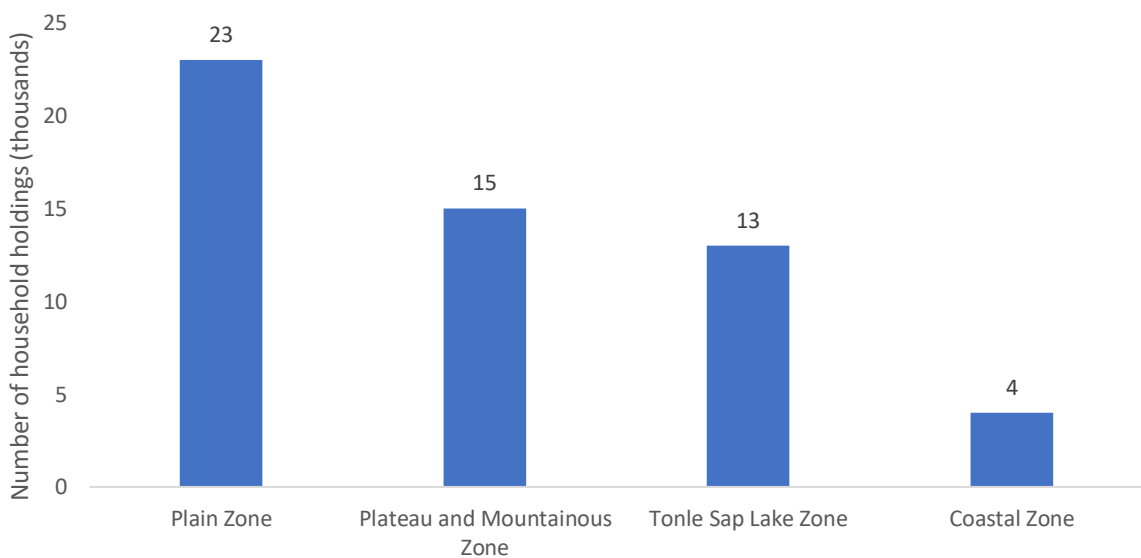
¹ WHO COVID-19 dashboard showing number of cases and deaths by week. Cambodia had 382 cases by the end of calendar year 2020 and 0 deaths. This increased to 120,510 cases 3,013 deaths by the end of 2021. <https://covid19.who.int/region/wpro/country/kh>

Figure 5.17 Participation in an informal farmers' associations, by zone, 2021



Source: CAS 2021

Figure 5.18 Participation in a formal agricultural community (registered with the government), by zone, 2021

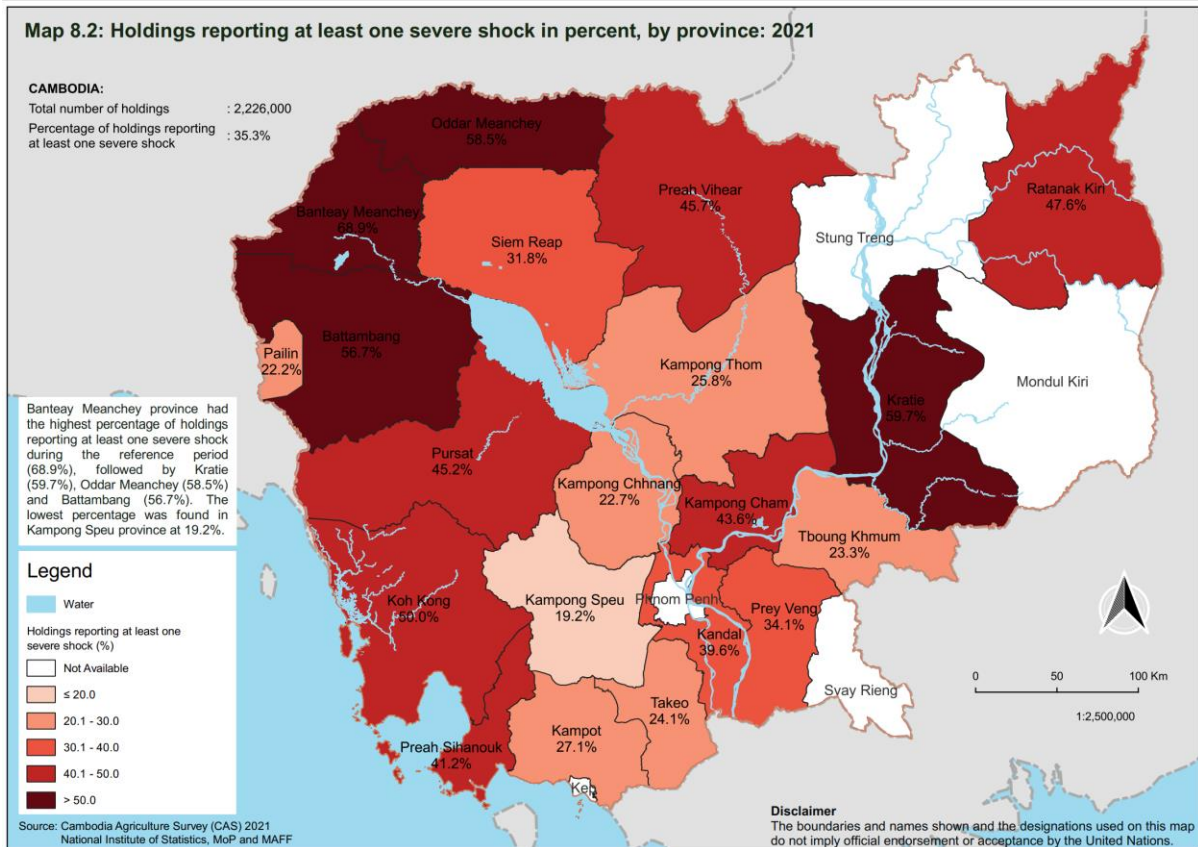


Source: CAS 2021

Shocks

Shock in agriculture refers to unexpected events that significantly impact agricultural production or markets. These can be due to natural factors such as droughts, floods, pests, or diseases that can lead to crop failure, but they can also be man-made such as changes in government policy, trade restrictions, or conflicts that disrupt supply chains. These shocks can

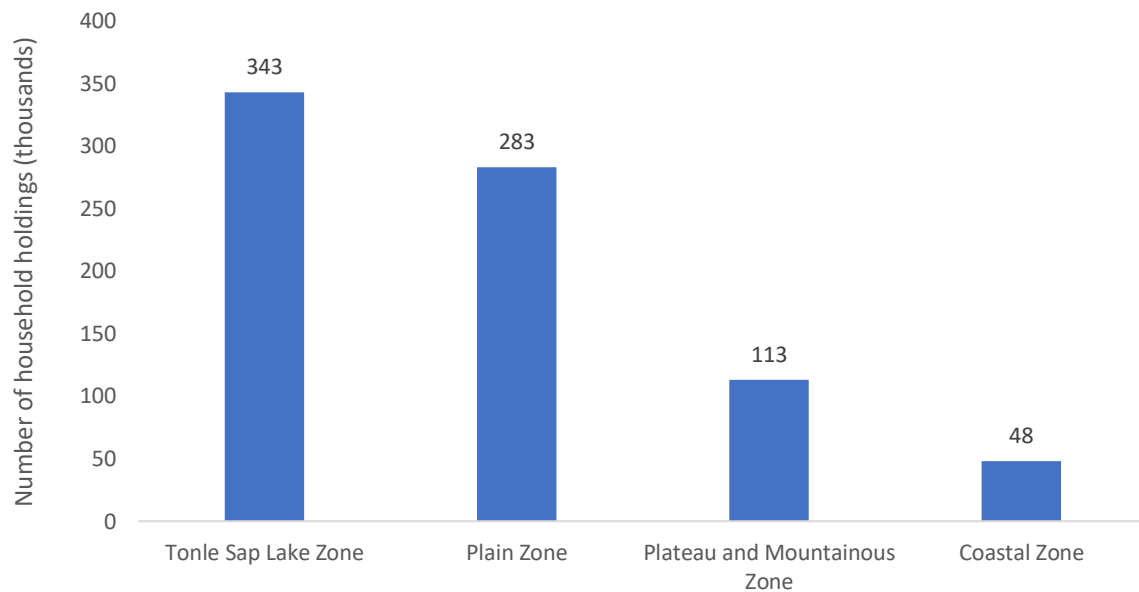
have a profound impact on the agricultural sector and the broader economy. They can lead to increased food prices, reduced income for farmers, and increased poverty and food insecurity among vulnerable populations.



Source: Cambodia Agriculture Survey 2021 (CAS 2021) Selection of Thematic Maps; NIS-MOP, MAFF 2023.

Within the CAS 2021, the Tonle Sap Lake zone had the most holdings reporting a severe shock throughout the year (343,000). The Coastal zone had the lowest number of holdings reporting a severe shock (48,000).

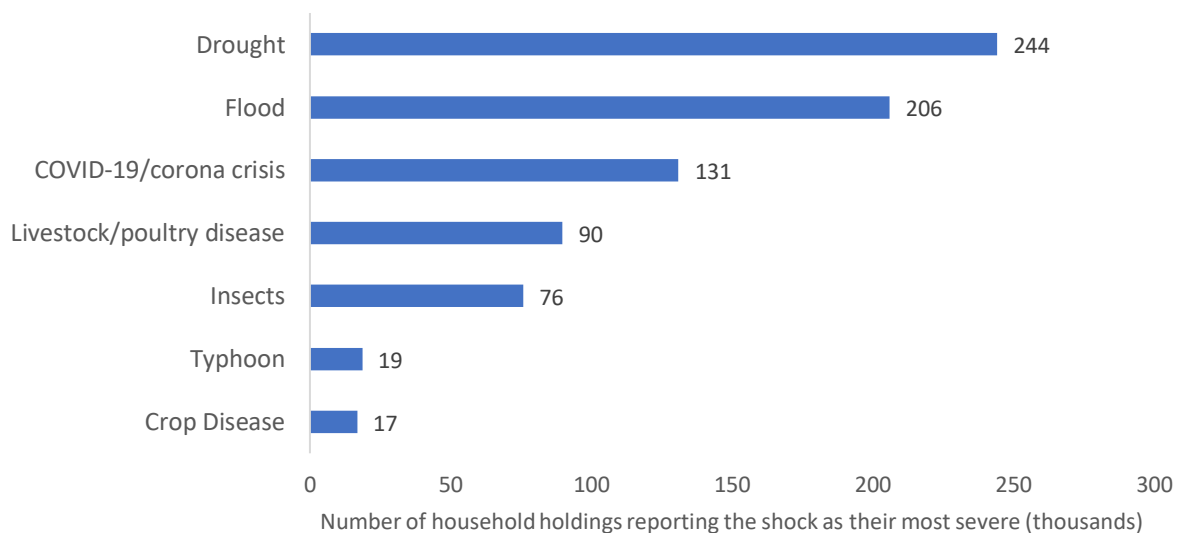
Figure 5.19 Number of holdings reporting any severe shock, by zone, 2021



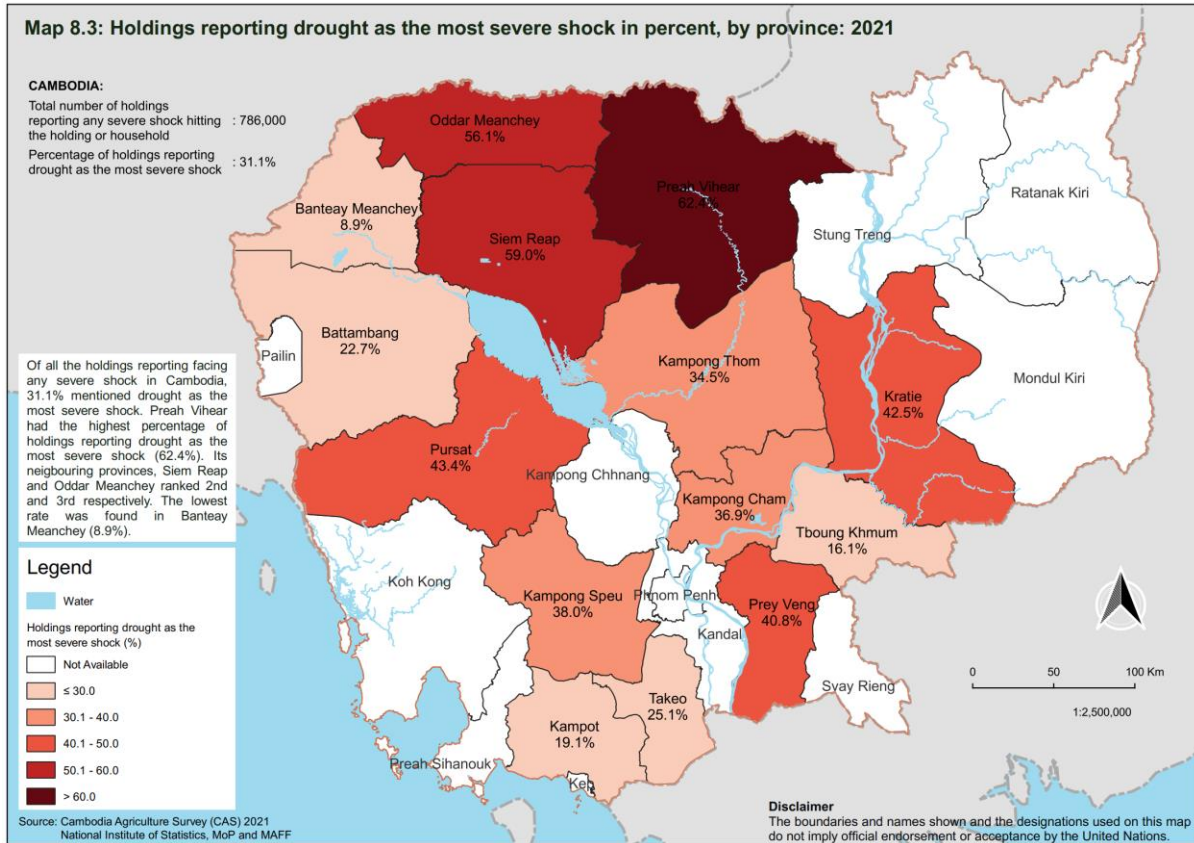
Source: CAS 2021

The severe shock which was referenced by most holdings was drought, affecting 244,000 household holdings in 2021. Flooding was the second most cited shock with 206,000 holdings reporting it having a severe effect on the holding within the reference period. Thirdly, COVID-19 was mentioned as having the most severe shock on a total of 131,000 holdings.

Figure 5.20 Number holdings reporting the shock as most severe, Cambodia, 2021



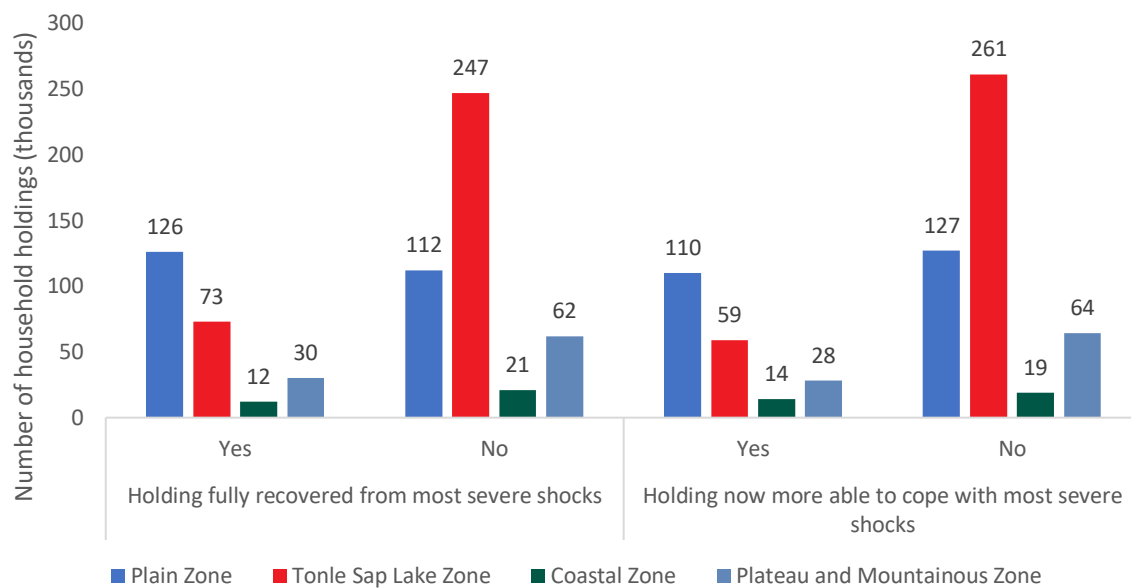
Source: CAS 2021



Source: Cambodia Agriculture Survey 2021 (CAS 2021) Selection of Thematic Maps; NIS-MOP, MAFF 2023.

In most cases, holdings responded that they had not fully recovered from the most severe shocks which had affected them. In particular, in the Tonle Sap Lake zone, 247,000 holdings reported that they had not recovered compared to only 73,000 which had. The Plain zone was the only zone in which more holdings had fully recovered compared to those which had not. Furthermore, in most cases, holdings did not report that they were more able to cope with severe shocks than before. Again, the Tonle Sap Lake zone most frequently reported not being able to cope with severe shocks.

Figure 5.21 Holding recovery from severe shocks, by zone, 2021



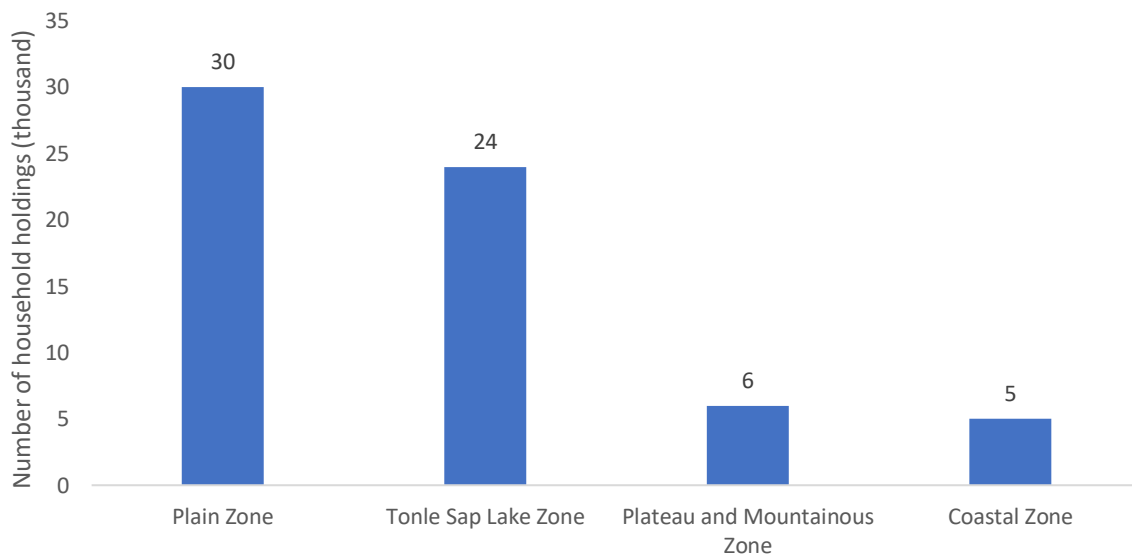
Source: CAS 2021

Loans

Access to finance is crucial for smallholder agricultural holdings in developing countries for several reasons including productivity improvements, risk management, market access, disaster preparation and socio-economic development.

Figure 5.22 shows that holdings in the Plain Zone had the most access to credits for protection against external shocks compared to the other zones. 30,000 holdings in the Plain Zone reported access to credits, followed by 24,000 holdings in the Tonle Sap Lake Zone.

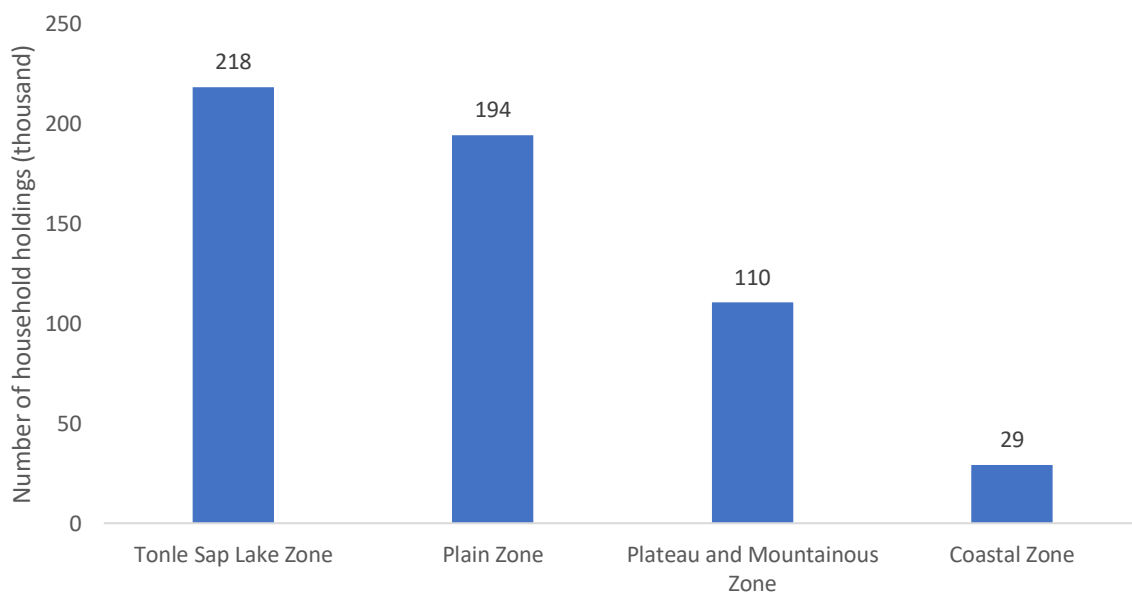
Figure 5.22 Holding had access to credits (formal or informal) for protection against external shocks, by zone, 2021



Source: CAS 2021

218,000 holdings in the Tonle Sap Lake zone reported having at least one loan, this was followed by the Plain zone (194,000), Plateau and Mountainous zone (110,000), and Coastal zone (29,000).

Figure 5.23 At least one member of the household has a loan, by zone, 2021

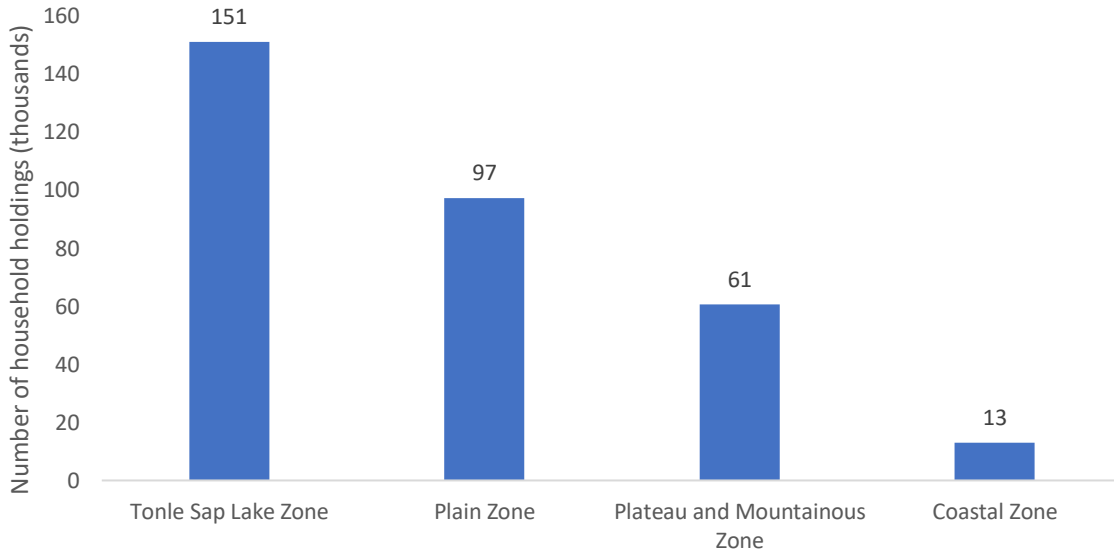


Source: CAS 2021

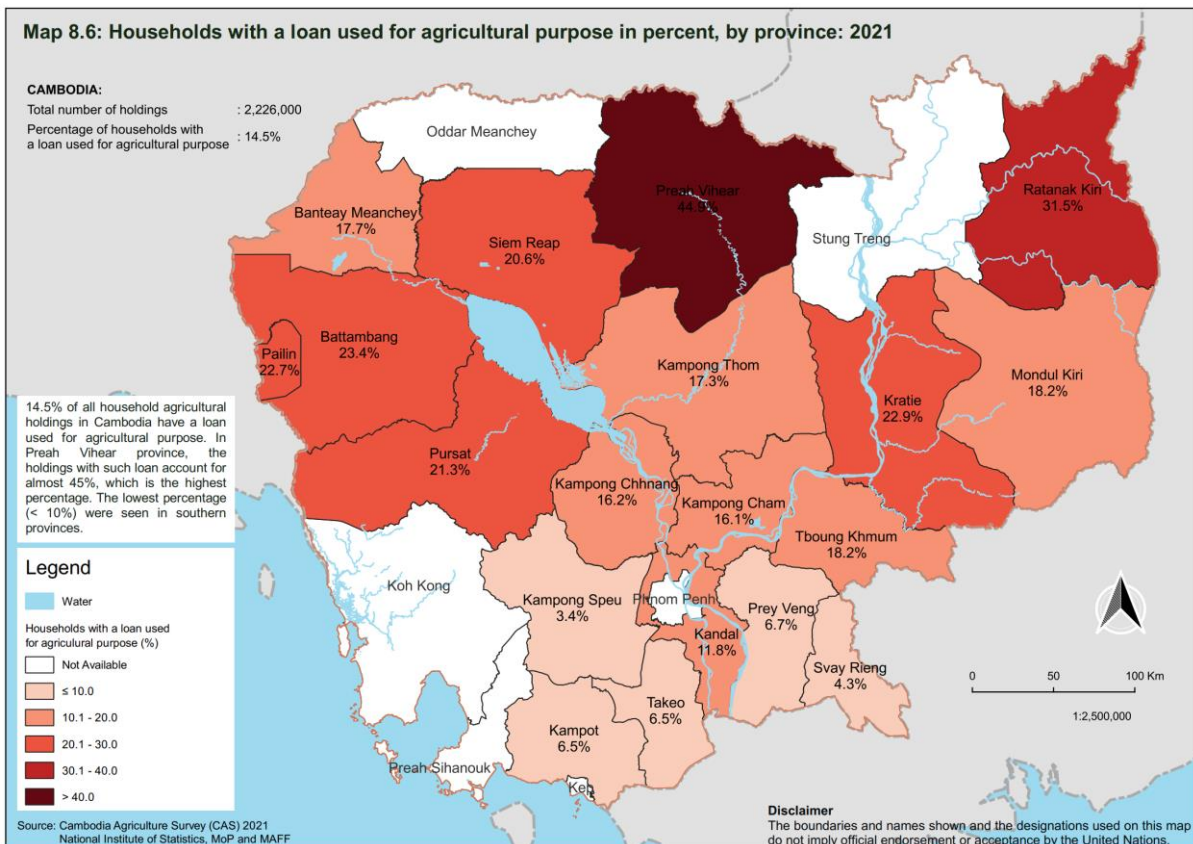
Approximately 58% of holdings with loans used at least some part of their loans for agricultural purposes. In the Tonle Sap Lake zone 151,000 holdings reported using at least part of their

loans for agricultural purposes, this was followed by the Plain zone (97,000), Plateau and Mountainous zone (61,000) and Coastal zone (13,000).

Figure 5.24 Holdings reporting at least part of their loans being used for an agricultural purpose, by zone, 2021



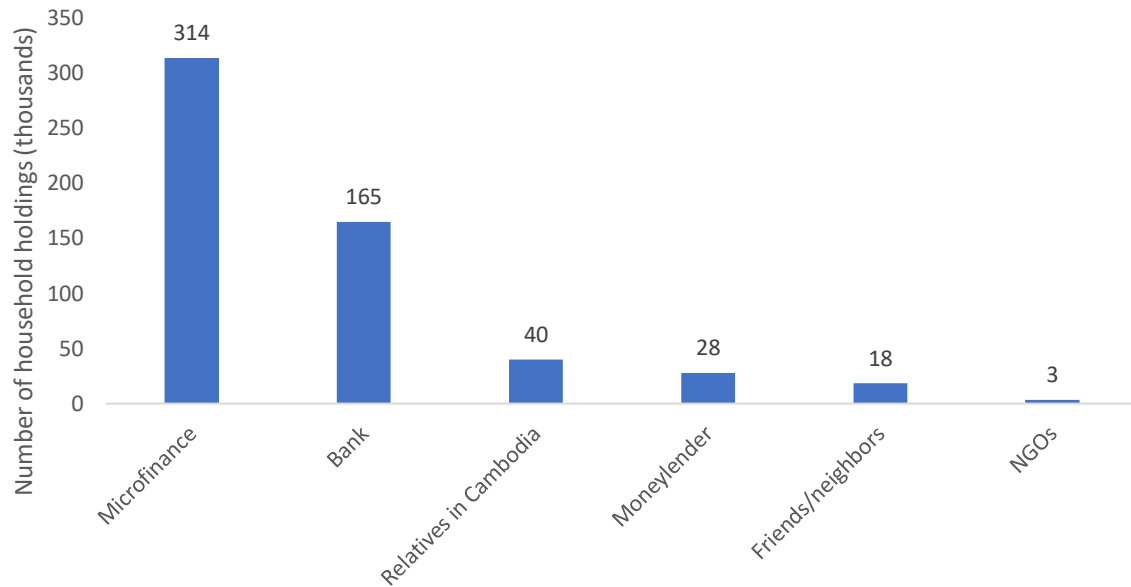
Source: CAS 2021



Source: Cambodia Agriculture Survey 2021 (CAS 2021) Selection of Thematic Maps; NIS-MOP, MAFF 2023.

Loans were most frequently taken out via microfinance institutions. In total, 314,000 holdings reported using microfinance institutions for at least one of their loans, a number much higher than the second most used source, banks (165,000). Outside of microfinance and banks, informal sources of money lending; relatives, moneylenders, friends/neighbours; were reported much less frequently.

Figure 5.25 Source of the loan, Cambodia, 2021



Source: CAS 2021