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Cambodia Agriculture Survey 2021 Statistical Release



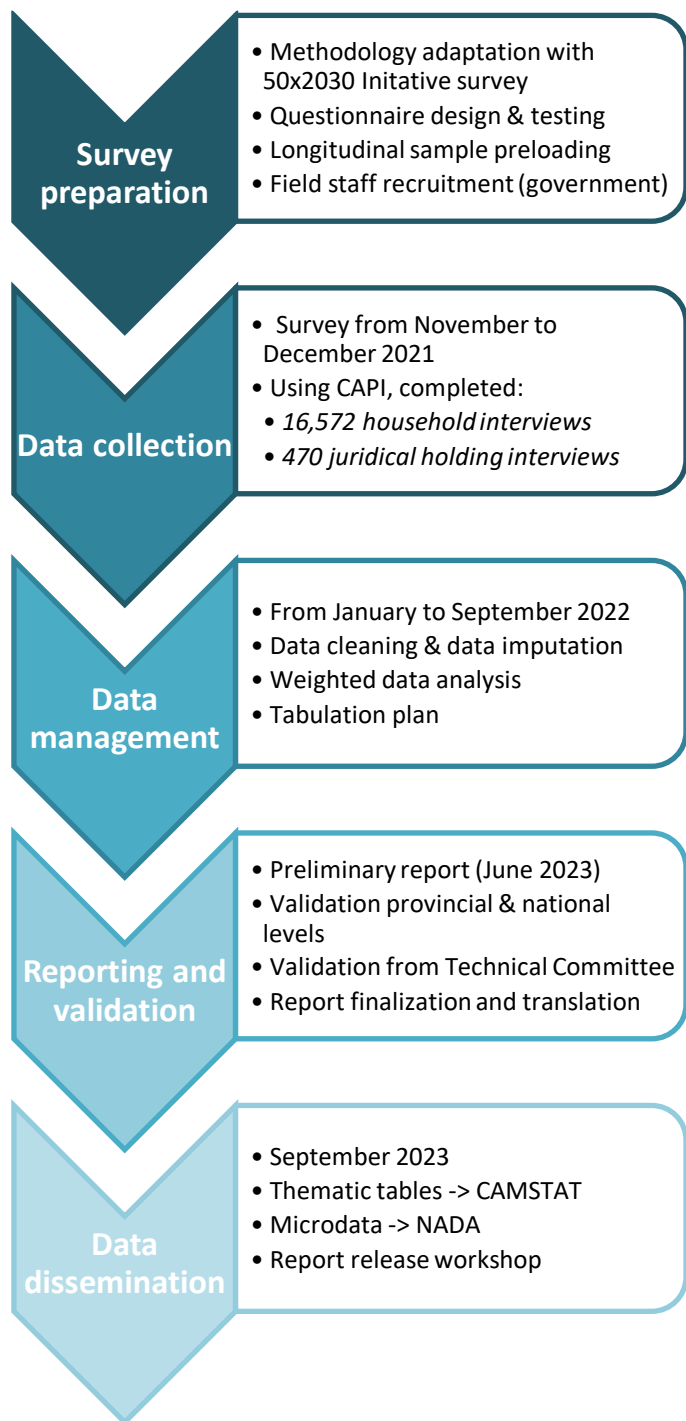
October 2023

The data presented in this Statistical Release comes from the Cambodia Agriculture Survey 2021 report (CAS2021), which was produced by the National Institute of Statistics (NIS), Ministry of Planning, in collaboration with the Ministry of Agriculture, Forestry and Fisheries (MAFF) and with technical support from the Food and Agriculture Organization of the United Nations (FAO), under the scope of the 50x2030 Initiative to Close the Agricultural Data Gap. The 50x2030 is a multi-donor initiative implemented through a unique partnership between the World Bank, FAO and the International Fund for Agricultural Development (IFAD), with the aim to build national statistical capacity and to establish an efficient and durable national agricultural data collection system.

1. Survey methodology overview

In November to December 2021, two Royal Cambodian Government institutions (NIS and MAFF) undertook the CAS 2021, a follow-up to the Cambodia Inter-Censal Agriculture Survey 2019 (CIAS 2019) and Cambodia Agriculture Survey 2020 (CAS 2022). This national survey collected information on crop cultivation, livestock and poultry raising, aquaculture and capture fishing, agricultural economy and labour.

Figure 1: Methodological overview



Source: Cambodia Agriculture Survey 2021.

The sampling approach for the CAS 2021 used a screening exercise to calculate a new sample. Statistical methods were used to select a representative sample of Enumeration Areas (EA) throughout Cambodia from the 2019 General Population Census of Cambodia Sampling Frame. Households within these EAs were screened for any agricultural activity. Using this basic information, the agricultural households were stratified and sampled for additional data collection. Juridical holdings, which are farm enterprises operated by corporations or government institutions, were also surveyed based on listings provided by MAFF and other governmental offices with knowledge of agricultural juridical holdings.

The CAS 2021 used a Computer Assisted Personal Interviewing (CAPI) data collection method and tablet technology to record and manage data.

A fisherman inspecting his cast net catch in Banteay Meanchey province. Source: FAO photograph, 2022



The household survey was conducted from 13-26 November 2021 and the juridical holdings survey was conducted from 13-26 December 2021. A total of 429 staff (including 337 enumerators, 46 field supervisors and 46 data supervisors) completed data collection on a sample of 16,572 household holdings and 470 juridical holding interviews, across the 25 provinces of Cambodia.

This Statistical Release presents the main CAS 2021 findings, for the household agricultural holdings only.

2. Household agricultural holdings

The CAS 2021 survey estimated a total of 2,226,000 household agricultural holdings in Cambodia. Based on the General Population Census of Cambodia 2019, it is estimated that there are 3,553,021 households

in the country and therefore an estimated 63 percent of all households are involved in agricultural production.

These household agricultural holdings were unevenly distributed across the country's socio-geographic zones: the Plain Zone has the largest number of agricultural holdings (43%), followed by the Tonle Sap Lake Zone (35%), the Plateau Zone (15%), and finally the Coastal Zone (7%).

Figure 2: Socio-geographic zones in Cambodia

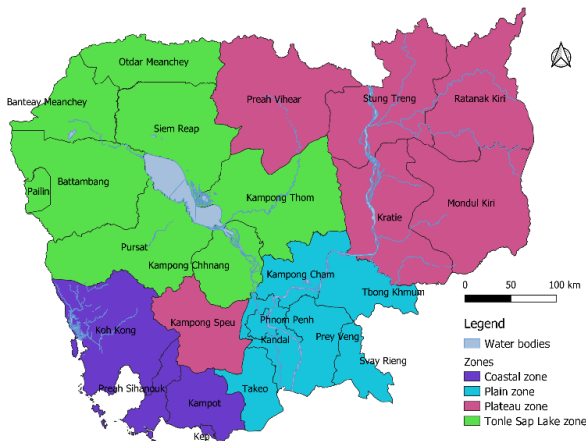
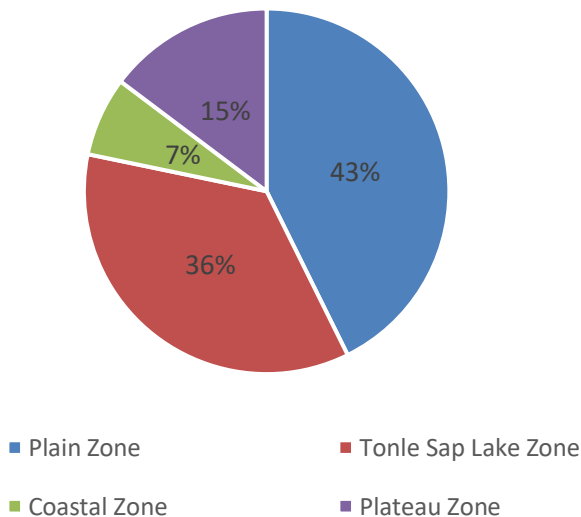


Figure 3: Number (in thousands) and percentage of household agricultural holdings by socio-geographic zone

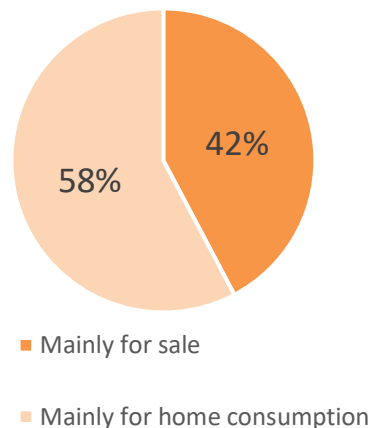


Source: Cambodia Agriculture Survey 2021.

Home consumption was reported as the main agricultural product destination by 58 percent of the household holdings in Cambodia, while the other 42 percent mentioned that agricultural production was mostly for sale. This varied across zones with 85 percent of agricultural holdings in the Coastal Zone producing primarily for home consumption, followed by Plateau

Zone (59%), Plain Zone (58%) and Tonle Sap Lake Zone (52%).

Figure 4: Percentage of household agricultural holdings reporting their main agricultural product destination



Source: Cambodia Agriculture Survey 2021.

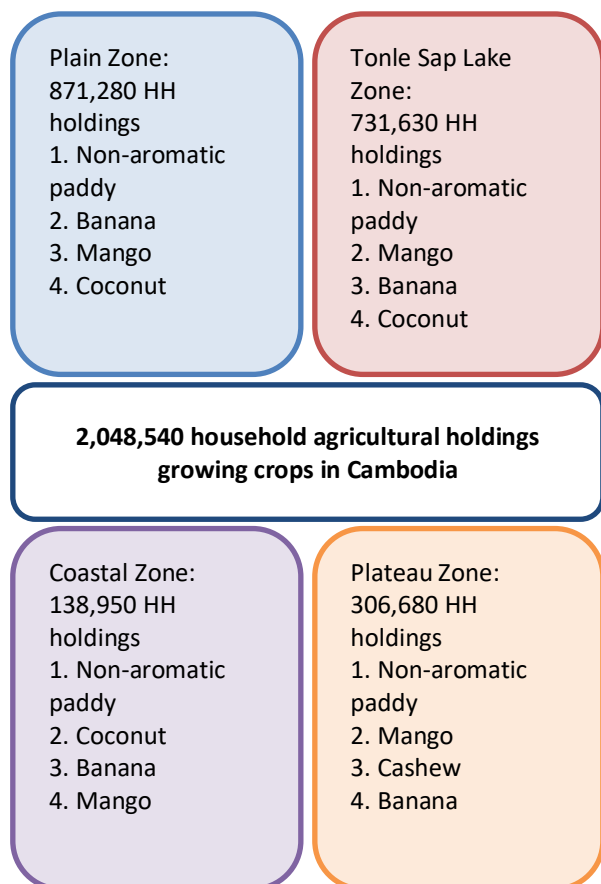
3. Crop production activity

The survey estimated that approximately 2,048,540 of the 2,226,000 household agricultural holdings were growing crops (92%). Numerous types of crops were reported during data collection, but the survey focused on roughly 30 crops of interest selected by MAFF, for which information on planted and harvested areas, input use (fertilizers, pesticides and irrigation), and production was obtained.

The survey ranked the four most prevalent crops in all four major zones of the country. Non-aromatic paddy was found to be the most widespread crop across the country. The CAS 2021 estimated that non-aromatic paddy had a total planted area of 2.10 million hectares and a total harvested area of 2.08 million hectares. The average production was estimated to be 2.7 kilograms per hectare, with a total national production estimated at 5.89 million tonnes.

The survey showed that Cambodia produces many varieties of fruits including mangoes, bananas, custard apples, dragon fruits, durians, guavas, jackfruits, jambolen plums, longans, milk fruits, papayas, and pineapples. Mango was the second most popular crop among farmers in the Tonle Sap Lake and Plateau Zones (in terms of the number of holdings reporting they grew this crop). In the Plain Zone, banana was the second most popular crop whilst mango was third, and in the Coastal Zone coconut was second, banana third, and mango fourth. At the country level, about 113,670 hectares of mango were planted, and 82,440 hectares were harvested.

Figure 5: Four most prevalent crop types reported in each zone (by number of household holdings reporting; HH: household)



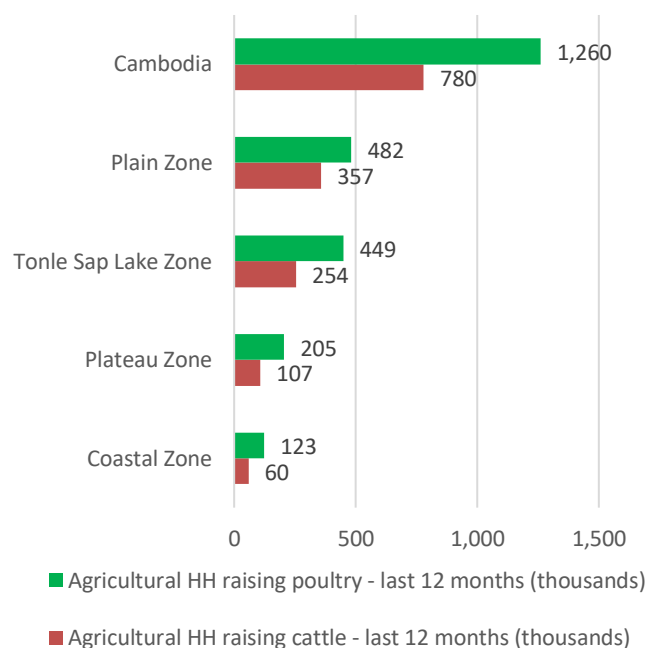
Source: Cambodia Agriculture Survey 2021.

Banana was within the top four most popular crops in each region being second in the Plain Zone, third in the Tonle Sap Lake and Coastal Zones, and fourth in the Plateau Zone. In total, banana was planted across an estimated 9,800 hectares and harvested in 6,690 hectares, for a total estimated production of about 36,329 tonnes.

4. Livestock & poultry raising activity

Raising livestock and/or poultry is an important agricultural activity in Cambodia, supporting livelihoods and providing income to an estimated 1,610,000 household agricultural holdings (72%) in the country. Keeping or raising livestock and/or poultry was highest among agricultural households in the Coastal Zone where they were kept in 84 percent of agricultural households and lowest in the Plain Zone where they were kept in 69 percent. An estimated 1,260,000 holdings reported raising poultry and 780,000 raising cattle.

Figure 6: Number of household agricultural holdings reporting a livestock and/or poultry raising activity, by socio-geographic zone (in thousands)



Source: Cambodia Agriculture Survey 2021.

The Plain Zone was the zone with the largest number of household holdings raising cattle (357,000 household agricultural holdings). This was followed by the Tonle Sap Lake Zone (254,000), the Plateau Zone (107,000) and the Coastal Zone (60,000).

Cattle are fed in their housing located under the home of a household agricultural holding. Source: FAO photograph, 2022



The Plain Zone recorded again the highest number of household agricultural holdings raising poultry (482,000), followed by the Tonle Sap Lake Zone (449,000), the Plateau Zone (205,000) and the Coastal Zone (123,000).

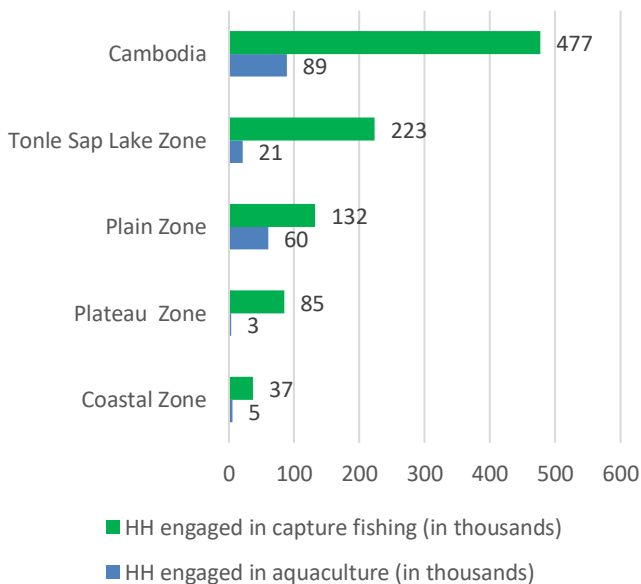
Nationwide, data shows that the average number of cattle per household holding raising cattle was 4.6. As for households raising poultry, the average number of birds per household holding was 71.7.

5. Aquaculture & capture fishing activity

Aquaculture is an additional economic activity undertaken by 4 percent of household agricultural holdings (approximately 89,050 holdings) whilst capture fishing occurs in an estimated 21 percent of holdings (approximately 476,630 holdings). Included within the above totals, there were 26,790 (1.2% of all agricultural holdings) that were involved in both aquaculture and capture fishing activities.

The zone with the largest number of household agricultural holdings practising aquaculture was the Plain Zone (60,450 holdings, 6% of agricultural holdings) whilst the zone practising the most capture fishing was the Tonle Sap Lake Zone (223,080 holdings, 28% of agricultural holdings).

Figure 7: Number of household agricultural holdings reporting aquaculture or capture fishing activity, by socio-geographic zone



Source: Cambodia Agriculture Survey 2021.

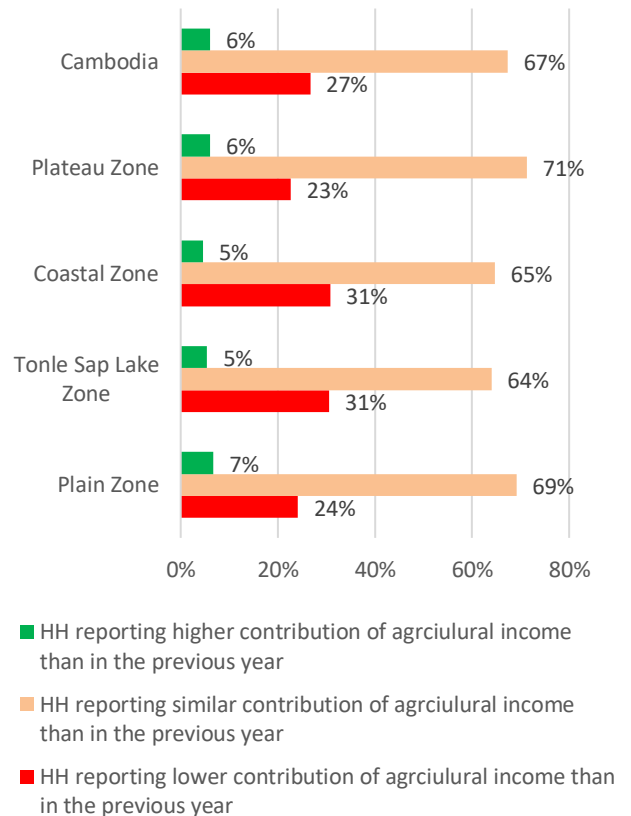
While 79.1 percent of the holdings who reported the capture fishing activity captured fish, 12 percent captured crabs and 5 percent captured snails. The total catch reported for fish in capture fishing was 331 million kilograms. In looking at the species raised in aquaculture settings, the most plentiful species raised on the day of the CAS 2021 interview included Striped Catfish (with 68 million inventory) and Catfish (with 51 million inventory).

6. Economy and Labour

Agriculture remains essential to secure the livelihoods of the Cambodian population. An estimated 35 percent of holders reported that about half of their total household

income (40% to 59%) was accounted for by agricultural income, 18 percent reported that most or almost all (60% to 99%) of their total household income was accounted for by agricultural income, and 4 percent reported that all (100%) of their total household income was accounted for by agricultural income.

Figure 8: Percentage of household agricultural holdings reporting a higher, similar or lower contribution of their agricultural income to their household's total income, compared with the previous year, by socio-geographic zone



Source: Cambodia Agriculture Survey 2021.

Around one-quarter (27%) of the Cambodian household agricultural holdings reported that their agricultural income contributed less to their total household income than during the previous year; 67 percent reported a similar contribution, and 6 percent reported a greater contribution to their total household income than during the previous year.

Around 98% of household agricultural holdings own/have owner-like possession of the land they conduct their agricultural activities on. Owner reported purchase prices of the land they own indicates that nationwide the price of land has increased over time from \$2,600 USD per hectare for land purchased in the year 2000 or before, to \$7,500 USD per hectare for purchases made in 2021.

A prevalent trend in Cambodia indicates a notable

reliance on occasional workers across its agricultural holdings. Between July 2020 and June 2021, 464,000 agricultural holdings throughout the country engaged occasional workers. The Tonle Sap Lake Zone stood out, with 204,000 holdings hiring such workers, while, at the other end of the spectrum, the Coastal Zone saw the least, with 19,000 holdings employing occasional workers during the specified period.

In Cambodia, a notable 2,633,100 occasional workers were hired across various agricultural holdings, revealing intriguing gender disparities across zones. While the overall distribution is relatively balanced at 49.2 percent female and 50.8 percent male workers, regional variances are evident. The Plateau and Mountainous Zone leans towards female labour at 62.8 percent, whereas the Coastal Zone predominantly employs males, constituting 69.5 percent of the workforce, highlighting the diverse gender dynamics in agricultural employment across the nation.

7. COVID-19 and shocks

Approximately 35 percent of agricultural household holdings reported experiencing some form of severe shock during the last 12 months, including weather events like typhoons, floods, landslides or drought and other impactful events including insect infestations, crop disease, or livestock disease. At the national level, approximately 297,000 agricultural holdings (13%) reported their agricultural activity being impacted in some way by the COVID-19 crisis during the reference period of the survey. Holdings reported on the most severe shock of the year, the most severe shock mentioned most frequently in 2021 was drought (244,000 holdings), followed by flooding (206,000 holdings) and thirdly, COVID-19 (131,000).

Figure 9: Fieldwork conducted with social distancing and masks, FAO photograph



9. Resources

National Institute of Statistics, Ministry of Planning, in collaboration with Ministry of Agriculture, Forestry and Fisheries, *Cambodia Agriculture Survey 2021 (CAS 2021) Final Report*, October 2023. The full report and a digital version of this brief can be found on the National Institute of Statistics website.

10. Contact

Cambodia Agriculture Survey

FAO Cambodia
<https://www.fao.org/cambodia/en/>

Ministry of Agriculture, Forestry and Fisheries (MAFF), #200, Preah Norodom Blvd, Tonle Basac, Chamkarmon, Phnom Penh, Cambodia, P.O. Box: 53.

National Institute of Statistics (NIS), Ministry of Planning (MoP)
<https://www.nis.gov.kh/>

National Institute of Statistics (NIS), Ministry of Planning (MoP), Royal Government of Cambodia. Building C, E and F, #386 Preah Monivong Blvd, Boeung Keng Kong 1, Chamkarmorn, Phnom Penh, Cambodia.

Ministry of Agriculture, Forestry and Fisheries (MAFF)
<https://web.maff.gov.kh/>

Ministry of Agriculture, Forestry and Fisheries (MAFF), 255, 200 Preah Norodom Blvd (41), Phnom Penh, Cambodia.



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