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VIETNAM'S CASSAVA SUPPLY CHAIN CURRENT STATUS AND KEY ISSUES FOR CONSIDERATION

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List of Abbreviations

CHQ	Vietnam Customs Department
CTK	National Statistics Office of Vietnam
DN	Enterprise
DVMTR	Payments for Forest Environmental Services (PFES)
EU	European Union
EUDR	European Union Deforestation Regulation
FCDO	UK Foreign, Commonwealth & Development Office
GCN	Certificate
HS	Harmonized System (HS) code under the Harmonized Commodity Description and Coding System issued by the World Customs Organization (WCO)
ITC	International Trade Centre
KN	Trade value
MTV	Single-member
NK	Import
NN&MT	Agriculture and Environment
NN&PTNT	Agriculture and Rural Development
NORAD	Norwegian Agency for Development Cooperation
TB	Average
TNHH	Limited liability
TQ	China
Tr.	Million
TT	Market
TT&BVTV	Crop Production and Plant Protection
UBND	People's Committee
USD	U.S. dollar
VN	Vietnam
XK	Export

Executive Summary

Cassava production, processing and trade (the cassava sector) is an important agricultural industry in Vietnam. Cassava is a key source of livelihood for about 1.2 million farming households, concentrated mainly in upland, mountainous and disadvantaged areas. Rising domestic and international demand for cassava raw materials and processed cassava products, especially cassava starch and dried cassava chips, has driven strong growth in domestic consumption and, in particular, exports. Export value exceeded USD 1.1 billion in 2024, making Vietnam the world's third-largest cassava exporter.

Vietnam's cassava supply chain is distinctive because the country is both a major producer of cassava raw materials and a large regional processing and export hub, sourcing inputs from both domestic production and imports. Total annual cassava raw material supply exceeds 18 million tonnes on a fresh-equivalent basis. Domestic supply accounts for about 58%, while imports account for the remaining 42%. More than 500,000 ha of domestic cassava plantations supply over 10 million tonnes of fresh cassava each year, while annual imports are equivalent to about 8 million tonnes of fresh cassava. Although the country's overall cassava-growing area has declined slightly, some localities have seen significant expansion in recent years, particularly provinces with large forest areas. This raises concerns about links between cassava expansion and land-use conversion, including forest land.

Vietnam imports large volumes of cassava raw materials, mainly from Cambodia and Lao PDR. Together, these two countries account for more than 97% of Vietnam's total cassava raw material imports. As in Vietnam, cassava is important to the livelihoods of hundreds of thousands of households in both Cambodia and Lao PDR. Recent expansion of cassava-growing areas in these countries has also raised concerns about conversion of forest land to cassava cultivation.

The cassava supply chain currently operates largely through a dispersed and informal model. Most raw cassava is produced by smallholders and sold through networks of traders or agents and trading companies, with few legal contracts or formal binding arrangements. More than 95% of cassava-growing households sell through traders. Collection of traceability information - including land origin and transactions between households and agents - has received little attention. Processing enterprises, although they have substantial production capacity and play a central role in the supply chain, remain limited in their ability to control and demonstrate the legality and sustainability of raw material inputs, particularly cassava imported across borders.

Vietnam exports cassava products to more than 90 markets. China is by far the most important, accounting for more than 90% of the sector's annual export value. Other markets, including the Republic of Korea, Taiwan, Malaysia and others, are much smaller. As international markets increasingly require legality, traceability and deforestation-free production - most recently illustrated by the EU Deforestation Regulation (EUDR), which currently covers coffee, rubber and timber - Vietnam's cassava supply chain will face challenges in meeting similar requirements in the not-too-distant future.

In recent years, the Government of Vietnam has issued several important policies to steer the cassava sector toward sustainable development. The most notable is the Scheme on Sustainable Development of the Cassava Sector to 2030, with a Vision to 2050, together with mechanisms that encourage production linkages, cooperative development and business investment in agriculture.

However, implementation of these policies remains constrained by limited practical guidance, inadequate monitoring tools and insufficient incentives to encourage supply-chain actors to comply with traceability, transparency and forest-protection requirements. The Government has also made product traceability a priority, emphasizing the goal that by 2026 Vietnam's agricultural and forestry products, including those exported abroad, should be traceable.¹ Given the current structure of the cassava supply chain, meeting export-market traceability requirements will be a major challenge.

The report emphasizes the need to transform Vietnam's cassava supply chain quickly so that traceability can be implemented, with a focus on transparent and formalized information at each stage - including household land use and product transactions between households and agents, among agents, and between agents and processing enterprises. The Government and supply-chain actors should also establish effective risk-control mechanisms to ensure that cassava development does not damage forest resources and that land is used sustainably. Meeting traceability requirements will require broad dissemination of information and capacity building for all actors in the supply chain, particularly smallholders and traders. Local authorities should review existing cassava-growing areas, assess areas located on land planned for forestry, and identify and zone these areas according to risk. Transactions between households and agents should also be formalized to ensure legal compliance.

For imported cassava, the Government should strengthen cooperation with Cambodia and Lao PDR to better understand the status of these supply sources, including legal risks and deforestation risks. Sustainable development of the cassava sector also requires a stronger role for civil-society organizations and commodity associations, particularly in helping farmers, local authorities and enterprises improve awareness and capacity related to traceability, sustainable cultivation and social responsibility. These are key factors for reducing risk, preventing deforestation, maintaining export markets and securing sustainable livelihoods for millions of cassava-growing households in the future.

¹ <https://tuoitre.vn/tu-2026-truy-xuat-nguon-goc-tat-ca-nong-san-ban-trai-cay-chua-chat-cam-se-bi-xu-ly-20251210132940288.htm>;
<https://dinre.mae.gov.vn/toan-van-phat-bieu-cua-bo-truong-tran-uc-thang-tai-le-ra-mat-he-thong-truy-xuat-nguon-goc-nong-san-viet-nam-2862.htm>.

1. Introduction

Cassava - also known in Vietnam as manioc - was once regarded as a staple food crop for poor households. In recent years, however, it has become an export-oriented commercial crop generating around USD 1 billion annually and providing relatively high and stable income for cassava-growing households. Cassava's growing importance reflects rising demand for raw cassava, mainly dried cassava chips and cassava starch, for further processing in food manufacturing, industry, livestock production, healthcare and energy.

Cassava raw materials are among Vietnam's 13 major export commodities. In 2024, Vietnam's cassava raw material exports exceeded USD 1.1 billion,² up 33.4% from 2019. At this level, Vietnam ranked as the world's third-largest cassava exporter.³

This performance has been supported by both domestically produced cassava and imported raw materials, particularly from Cambodia and Lao PDR. Data from the General Statistics Office (now the National Statistics Office - CTK) and the General Department of Vietnam Customs (now the Vietnam Customs Department - CHQ) show that in 2024 Vietnam had a total cassava raw material supply of 18.2 million tonnes on a fresh-equivalent basis.⁴ Domestic supply provided 10.5 million tonnes (57.7%), Cambodia supplied 6.5 million tonnes (35.8%), and Lao PDR more than 1.1 million tonnes (6.4%).

Domestic supply comes from cassava-growing areas in a number of provinces, including areas that have expanded in recent years. CTK data show that between 2020 and 2024 cassava area increased by 8.5 thousand ha in Dien Bien, 7.3 thousand ha in Son La and 4.4 thousand ha in Tay Ninh.⁵ This expansion has raised concerns about possible links between forest conservation and expansion of land for cassava production.

Cambodia and Lao PDR - Vietnam's two most important sources of imported cassava raw materials - have also recorded substantial expansion of cassava-growing areas in recent years. This raises the question of whether cassava expansion is associated with forest areas in these countries.

More than 90% of cassava raw materials from Vietnam, including imported supply, are exported to China. The remainder goes to the Republic of Korea, Taiwan and other markets.⁶ Export markets are generally imposing increasingly stringent requirements concerning legality and sustainability. China, the Republic of Korea and Taiwan have not yet required imported agricultural and forestry commodities, including cassava, to be demonstrably deforestation-free, but such requirements could be introduced in the future. At the same time, the Government of Vietnam is tightening requirements on product traceability.

² Data from the Vietnam Customs Department.

³ <https://vneconomy.vn/nganh-san-can-giai-bai-toan-doi-moi-de-phat-trien-ben-vung.htm#:~:text=GIA%20SAN%20XUAT%20KHAU%20GIAM,t%E2%80%90n%E2%80%90ng%20nghiep%20quoc%20gia.>

⁴ Cassava raw materials include fresh cassava (newly harvested roots that have not undergone processing), dried cassava chips (sliced and sun-dried cassava roots), and cassava starch (starch extracted from cassava roots). To standardize weight units, this report uses fresh-equivalent volume based on the product yield ratio for dried cassava chips and cassava starch.

⁵ Source: <https://www.nso.gov.vn/px-web-2/?pxid=V0630&theme=N%E2%80%90ng%20l%E2%80%90am%20nghiep%20va%20thuy%20san.>

⁶ Data from the Vietnam Customs Department.

Ensuring traceability is becoming, and will increasingly become, a mandatory requirement for traded products, including cassava.⁷

This report, Vietnam's Cassava Supply Chain: Current Status and Key Issues for Consideration, was prepared by the Forest Trends research team to provide information on Vietnam's cassava supply chain, including domestic cassava raw material supply, the two main import sources (Cambodia and Lao PDR), and the main export market (China). It also examines the importance of cassava to the livelihoods of cassava-growing households and the implications of cassava development and expansion for forest protection and development in Vietnam, Cambodia and Lao PDR. Based on this information, the report makes recommendations for sustainable development of Vietnam's cassava sector, including linking cassava production with forest protection and implementing traceability.

The report uses both primary and secondary data. Primary data were collected through field surveys in major cassava-growing areas in Cambodia, Lao PDR and Vietnam from August to October 2024 and in August-September 2025. Data from Vietnamese localities were collected before provincial mergers, and the report therefore uses pre-merger locality names. The specific primary data sources include:

- Cambodia: field surveys in cassava-growing areas near forests and direct interviews with cassava-growing households in Mondulkiri Province, conducted in August 2024.

- Lao PDR: field surveys in cassava-growing areas near forests and direct interviews with cassava-growing households and cassava traders in Attapeu Province, conducted in August 2024 and August-September 2025.

- Vietnam: direct surveys and interviews with cassava-growing households, village heads, commune People's Committee leaders, cassava traders and cassava processing plants in Loc Ninh District, Binh Phuoc Province; Sa Thay District, Kon Tum Province; Thuan Chau and Mai Son districts, Son La Province; Tan Chau District, Tay Ninh Province; and Tram Tau District, Yen Bai Province. Surveys were conducted in August, September and October 2024.

Secondary information was drawn from reports and statistical data from CTK, CHQ, the Department of Crop Production and Plant Protection (TT&BVTV), and the Vietnam Cassava Association, as well as other domestic and international sources.

The report comprises six main sections. Following the general introduction in Section 1, Section 2 presents information on cassava raw material supply, including area, production and yield of domestic supply by ecological region and major producing localities, together with import volume and value, focusing on the two main sources, Cambodia and Lao PDR. Section 3 presents export volume and value for Vietnam's cassava raw material products, with detailed analysis of China, Vietnam's largest export market. It also provides information on the production capacity of cassava processing enterprises in Vietnam. Section 4 gives an overview of Vietnam's cassava supply chain and selected government policies supporting cassava-sector development. Section 5 discusses the role of cassava in the livelihoods of households in Vietnam, Cambodia and Lao PDR; the impacts of cassava development and area expansion on forest protection in the three countries; and the current state of Vietnam's cassava supply chain in the context of emerging legality and deforestation-free requirements. Section 6 provides discussion and recommendations for sustainable development of Vietnam's cassava supply chain and for forest protection and development.

⁷ <https://danviet.vn/bo-truong-tran-duc-thang-cuoi-nam-2026-co-ban-tat-ca-cac-san-pham-nong-lam-thuy-san-deu-phai-co-truy-xuat-nguon-goc-d1387409.html>

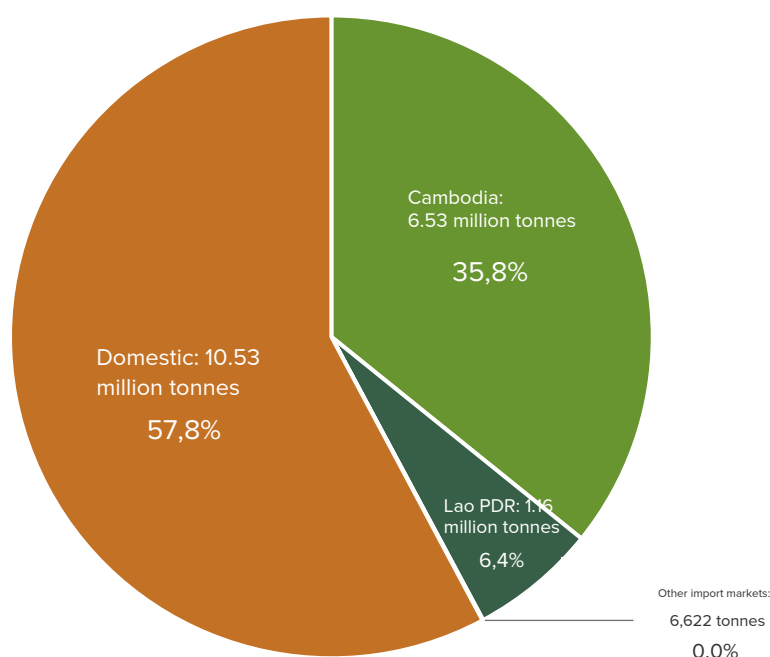
2. Cassava Raw Material Supply

2.1. Overview

Vietnam's cassava raw material supply has increased steadily in recent years, averaging 10.6% annual growth during 2018-2024 and rising particularly sharply in 2024. Supply comes from both domestic production and imports. According to CTK and CHQ, Vietnam's total cassava raw material supply in 2024 was 18.2 million tonnes on a fresh-equivalent basis, of which domestic supply accounted for 57.8% and imports for 42.2%. More specifically, over 517 thousand ha of domestic cassava plantations supplied 10.53 million tonnes of fresh cassava in 2024, while imports contributed nearly 7.7 million tonnes fresh-equivalent (sources cited above) (Figure 1).

Among the roughly 10 markets supplying cassava raw materials to Vietnam each year, Cambodia and Lao PDR have consistently been the largest import sources. In 2024, imports from Cambodia exceeded 6.5 million tonnes fresh-equivalent and imports from Lao PDR exceeded 1.1 million tonnes, accounting for 35.8% and 6.4%, respectively, of total cassava raw material supply according to CHQ. Supply from other markets was negligible (Figure 1).

Figure 1. Volume (fresh-equivalent) and share of cassava raw material consumed in Vietnam in 2024

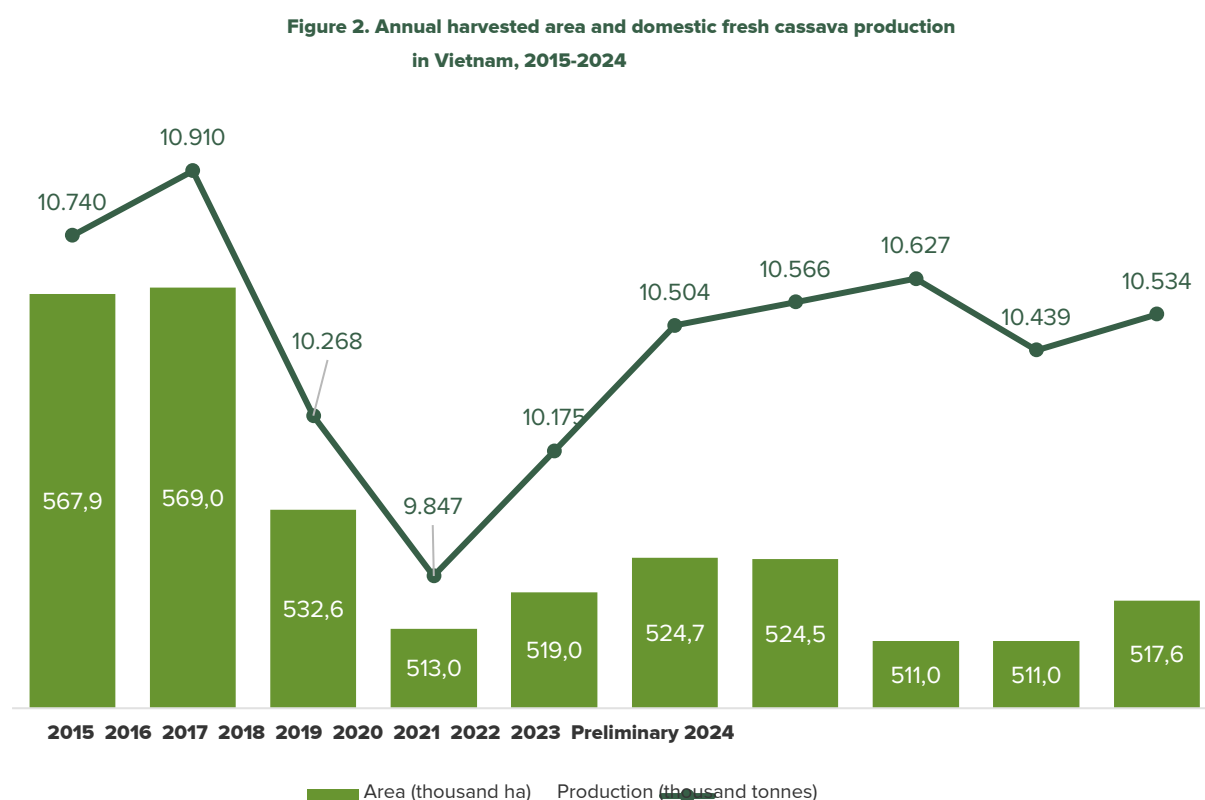


Source: Preliminary CTK data and CHQ data, compiled by the Forest Trends research team.

2.2. Domestic Cassava Raw Material Supply

According to CTK, over the past decade (2015-2024) Vietnam's annual cassava-growing area remained above 500 thousand ha but showed a gradual downward trend. The largest areas were recorded in 2015 and 2016, at nearly 570 thousand ha each year. The area fell sharply in 2017 and 2018, declining by an average of about 27 thousand ha per year. During 2019-2024, cassava area remained in the range of 511-525 thousand ha. The lowest levels were recorded in 2022 and 2023, at 511 thousand ha. In 2024, area increased by about 6,000 ha to 517 thousand ha. Compared with 2015, cassava area in 2024 was more than 50 thousand ha lower.

According to CTK, domestic supply averaged more than 10 million tonnes of fresh cassava per year during 2015-2024. Figure 2 presents Vietnam's annual cassava-growing area and fresh cassava production over this period.

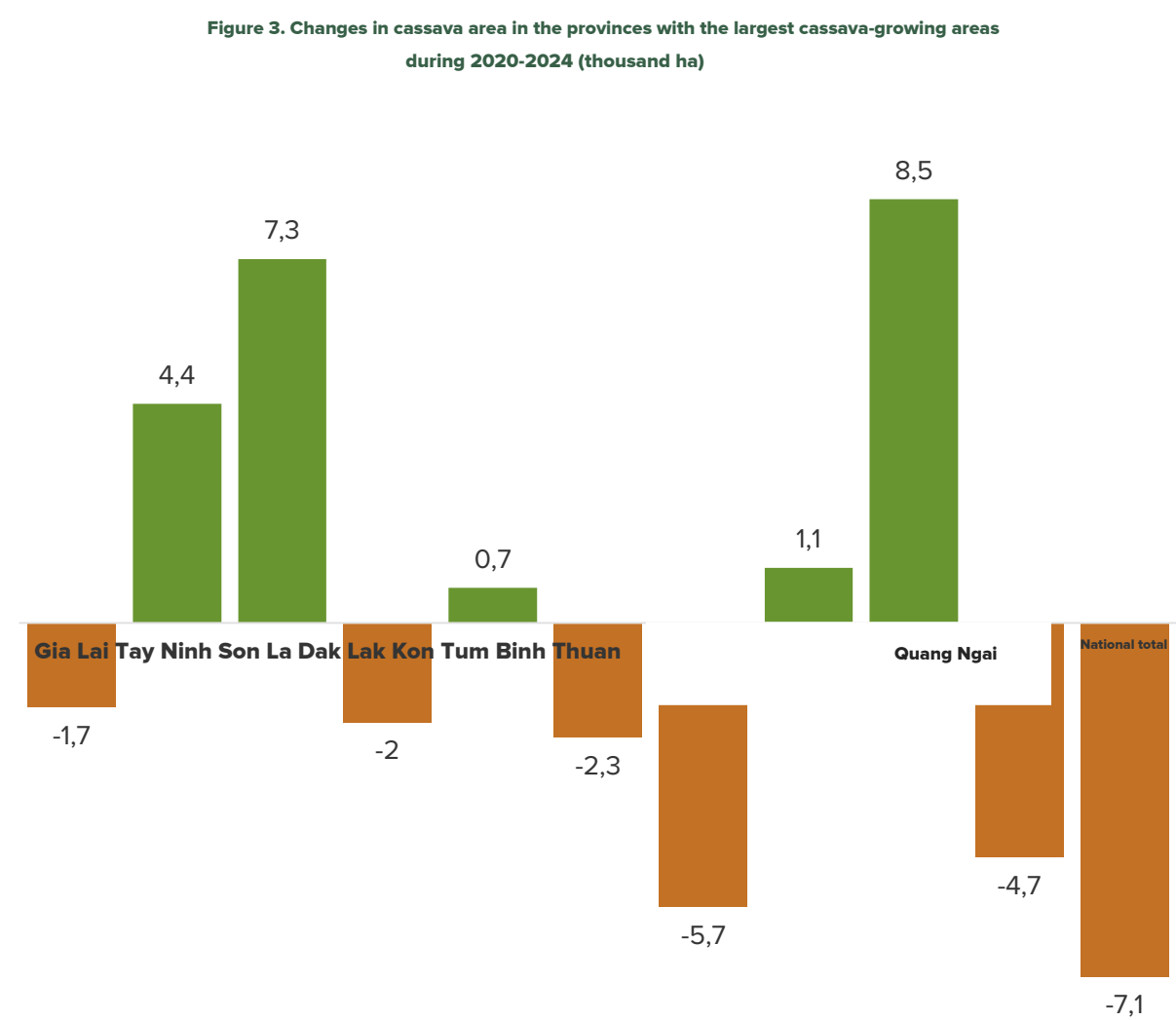


Source: National Statistics Office (CTK) data, compiled by the Forest Trends research team.

Cassava area and production in selected major provinces

Cassava is grown in 40 provinces with the participation of about 1.2 million households. Production is concentrated in the Central Highlands, Southeast and Northern mountainous regions. Table 1 summarizes annual area, production and yield for the 10 provinces with the largest cassava-growing areas during 2020-2024.

These 10 provinces are summarized in Table 1. In 2024, their cassava area accounted for 70% of the national total and nearly 74% of the country's fresh cassava production. Overall, Vietnam's cassava-growing area declined by 7.1 thousand ha during 2020-2024. Phu Yen and Quang Ngai recorded the largest decreases, while area expanded strongly in several other provinces, including Dien Bien, Son La and Tay Ninh (Figure 3).



Source: CTK data, compiled by the Forest Trends research team.

Domestic cassava yield

During 2020-2024, Vietnam's average cassava yield ranged from 20.0 to 20.8 tonnes/ha/year. Vietnam ranked fifth among the world's leading cassava-producing countries, after Cambodia, Indonesia, Ghana and Thailand.⁸ Tay Ninh recorded the highest yield (32.5-33.6 tonnes fresh cassava/ha/year), while Dien Bien recorded the lowest (8.3-10.3 tonnes fresh cassava/ha/year) (Table 1).

⁸ Report: "Results of cassava production, processing and consumption, 2015-2022: orientations and solutions for cassava development in the coming period." Department of Crop Production. Cassava Sector Conference in Tay Ninh, 27 June 2024.

Table 1. Annual cassava area, production and yield in the 10 provinces with the largest cassava-growing areas in Vietnam, 2020-2024

No.	Province	2020			2021			2022			2023			Preliminary 2024		
		Area (1,000 ha)	Production (1,000 tonnes fresh)	Yield (tonnes fresh/ha)	Area (1,000 ha)	Production (1,000 tonnes fresh)	Yield (tonnes fresh/ha)	Area (1,000 ha)	Production (1,000 tonnes fresh)	Yield (tonnes fresh/ha)	Area (1,000 ha)	Production (1,000 tonnes fresh)	Yield (tonnes fresh/ha)	Area (1,000 ha)	Production (1,000 tonnes fresh)	Yield (tonnes fresh/ha)
1	Gia Lai	78,9	1.592,8	20,2	78,8	1.588,2	20,2	80,2	1.596,4	19,9	80,2	1.611,1	20,1	77,2	1.557,3	20,2
2	Tay Ninh	57,1	1.903,9	33,3	59,2	1.926,4	32,5	62,3	2.024,6	32,5	62,3	2.070,3	33,2	61,5	2.068,8	33,6
3	Son La	36,9	432,4	11,7	41,9	487,4	11,6	43,0	553,2	12,9	43,0	526,8	12,3	44,2	537,9	12,2
4	Dak Lak	44,2	897,2	20,3	45,0	1.089,6	24,2	43,1	1.080,3	25,1	43,1	1.080,9	25,1	42,2	1.081,8	25,6
5	Kon Tum	39,3	589,9	15,0	38,8	584,9	15,1	39,3	612,1	15,6	39,3	619,1	15,8	40,0	648,8	16,2
6	Binh Thuan	28,0	516,8	18,5	28,0	515,6	18,4	26,1	535,1	20,5	26,1	536,7	20,6	25,7	523,1	20,4
7	Phu Yen	29,5	664,4	22,5	29,7	671,9	22,6	25,0	628,6	25,1	25,0	510,4	20,4	23,8	498,6	20,9
8	Dong Nai	16,5	438,7	26,6	16,8	434,0	25,8	17,6	433,9	24,7	17,6	472,5	26,8	17,6	475,2	27,0
9	Dien Bien	8,3	78,7	9,5	8,9	91,6	10,3	12,7	105,5	8,3	12,7	123,5	9,7	16,8	157,4	9,4
10	Quang Ngai	17,8	340,7	19,1	17,1	309,3	18,1	13,1	245,3	18,7	13,1	231,5	17,7	13,1	233,7	17,8
	Nationwide	524,7	10.504,2	20,0	524,5	10.565,6	20,1	511,0	10.626,9	20,8	511,0	10.439,2	20,4	517,6	10.534,0	20,4

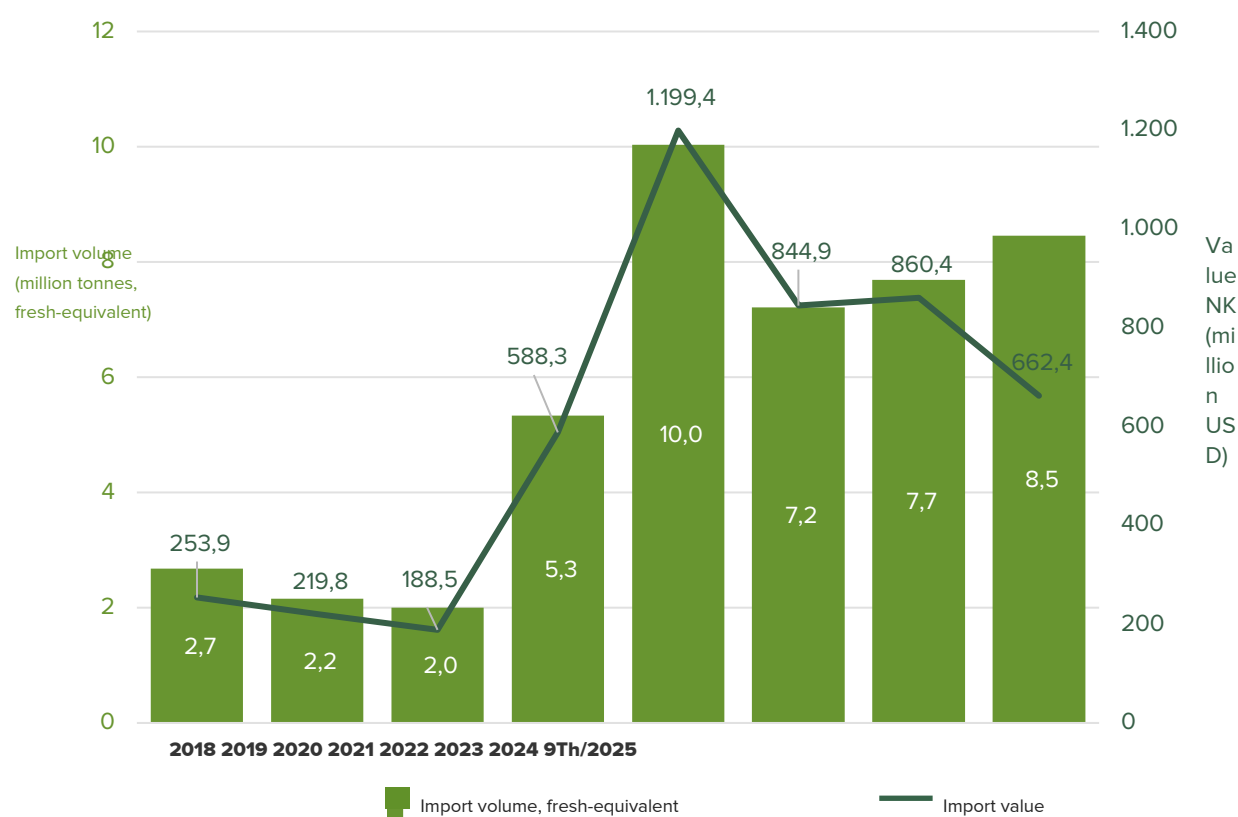
Source: National Statistics Office of Vietnam data, compiled by the Forest Trends research team.

2.3. Imported Cassava Raw Material Supply

According to CHQ, Vietnam's cassava imports rose markedly from 2021 and peaked in 2022 at about 10 million tonnes fresh-equivalent, worth nearly USD 1.2 billion, before declining and stabilizing somewhat in subsequent years. During 2018-2020, both import volume and value remained relatively low and fluctuated only modestly. Imports began to rise sharply in 2021. After 2022, volume and value declined slightly but remained relatively high compared with 2018-2021.

Notably, in the first nine months of 2025 alone, import volume reached 8.5 million tonnes, more than 10% above the full-year 2024 volume of 7.7 million tonnes. Import value, however, was only about USD 662 million, or 77% of the full-year 2024 total, reflecting a decline in import prices (Figure 4).

Figure 4. Volume and value of Vietnam's cassava raw material imports, 2018-9M/2025



Source: CHQ data, compiled by the Forest Trends research team.

Imported products

Vietnam primarily imports two cassava raw material products each year: dried cassava chips (HS 07141011) and fresh cassava (HS 07141099). Smaller volumes of cassava starch (HS 11081400), cassava flour (HS 11062010), and other dried cassava (HS 07141019) are also imported. Dried cassava chips and fresh cassava together accounted for more than 85%-97% of total fresh-equivalent import volume during 2018-9M/2025.

During 2018-2021, dried cassava chips were the largest imported product. From 2022 through the first nine months of 2025, however, fresh cassava became the largest imported product (Figures 5 and 6).

Figure 5. Vietnam's cassava raw material imports by product, 2018-9M/2025 (million tonnes, fresh-equivalent)

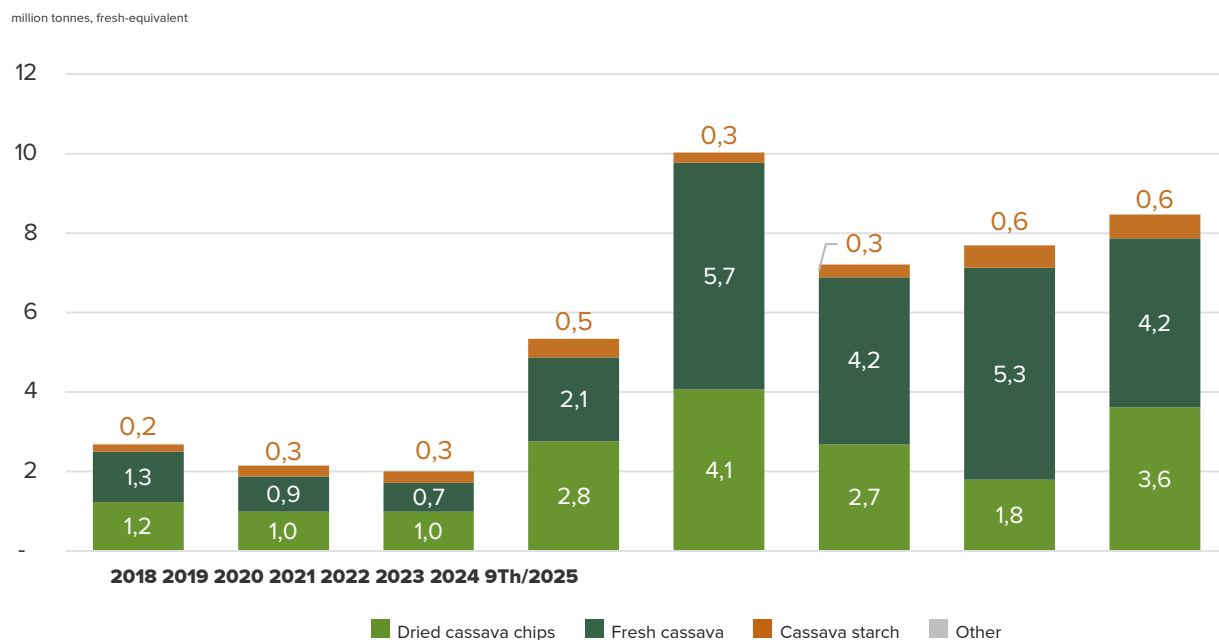
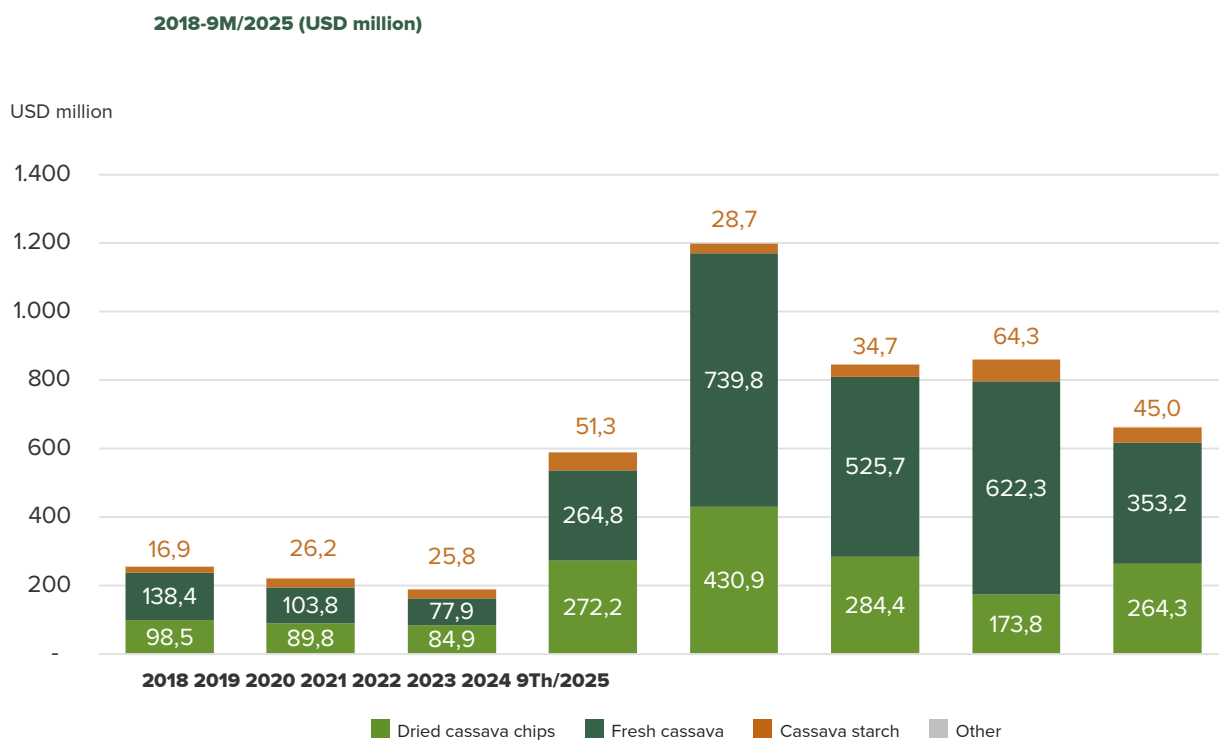


Figure 6. Value of Vietnam's cassava raw material imports by product, 2018-9M/2025 (USD million)

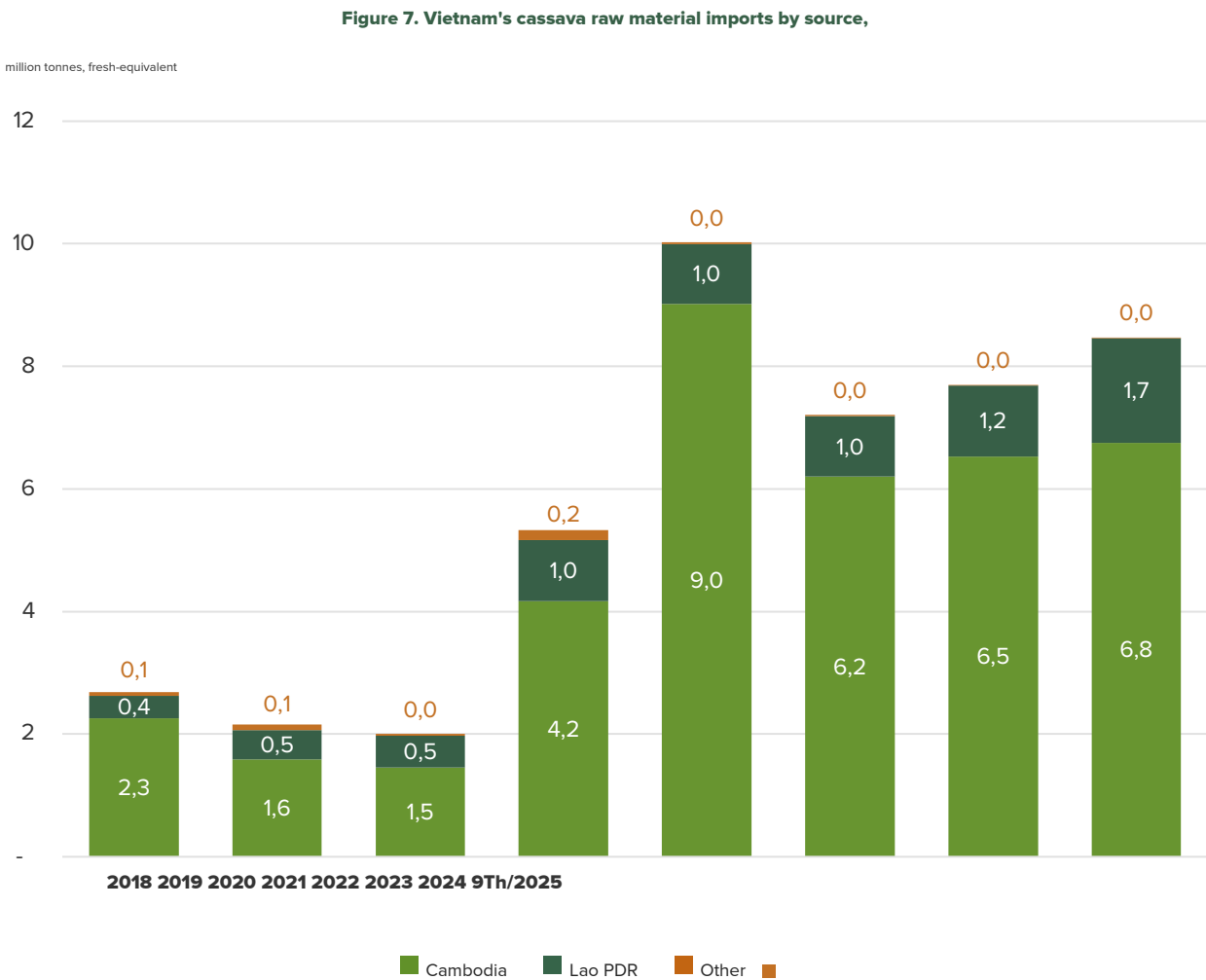


Source: CHQ data, compiled by the Forest Trends research team.

⁹ Fresh-equivalent conversion factors used in this report: 1 tonne of dried cassava chips = 2.5 tonnes of fresh cassava; 1 tonne of cassava starch (or cassava flour) = 4 tonnes of fresh cassava.

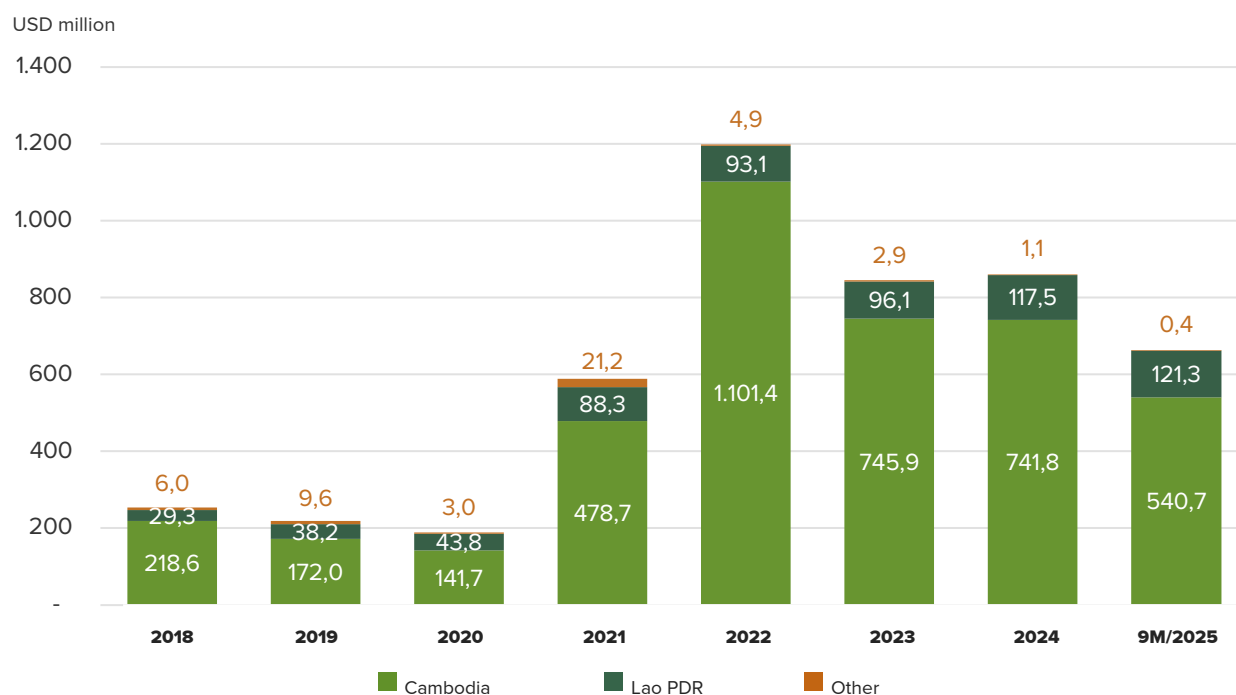
Appendices 1 and 2 provide detailed data on the volume and value of Vietnam's cassava raw material imports by product during 2018-9M/2025.

Sources of imported cassava raw materials



Source: CHQ data, compiled by the Forest Trends research team.

Figure 8. Value of Vietnam's cassava raw material imports by source, 2018-9M/2025 (USD million)



Cassava Raw Material Imports from Cambodia

Cambodia was Vietnam's largest supplier of cassava raw materials during 2018-the first nine months of 2025, accounting for 72%-90% of total annual import volume (fresh-equivalent). Imports from this source surged in 2022 to 9 million tonnes (fresh-equivalent), the highest level on record and more than 2.1 times the previous year. Import volumes during 2023-the first nine months of 2025 declined from the 2022 peak but remained high compared with 2018-2020. In the first nine months of 2025, Vietnam's imports of fresh cassava from Cambodia fell by about 20% compared with full-year 2024, while imports of dried cassava chips doubled, bringing total fresh-equivalent imports for the nine-month period to 3.5% above the full-year 2024 level (Figure 8).

Vietnam mainly imported fresh cassava and dried cassava chips from Cambodia during 2018-the first nine months of 2025, with fresh cassava accounting for the largest share. Cassava starch was imported only in very small volumes in 2018, 2019 and 2024.

In line with import volumes, 2022 recorded the highest value of Vietnam's cassava imports from Cambodia, at more than USD 1.1 billion. Import value fell to over USD 740 million in both 2023 and 2024. In the first nine months of 2025, although import volume exceeded the full-year 2024 level, import value reached only USD 540 million, down 27% from 2024. This indicates a significant decline in average import prices in recent months.

Figures 9 and 10 show the volume and value of Vietnam's cassava raw material imports from Cambodia by product during 2018-the first nine months of 2025, based on Vietnam Customs data.

Figure 9. Vietnam's cassava raw material imports from Cambodia by product, 2018-9M/2025 (million tonnes)

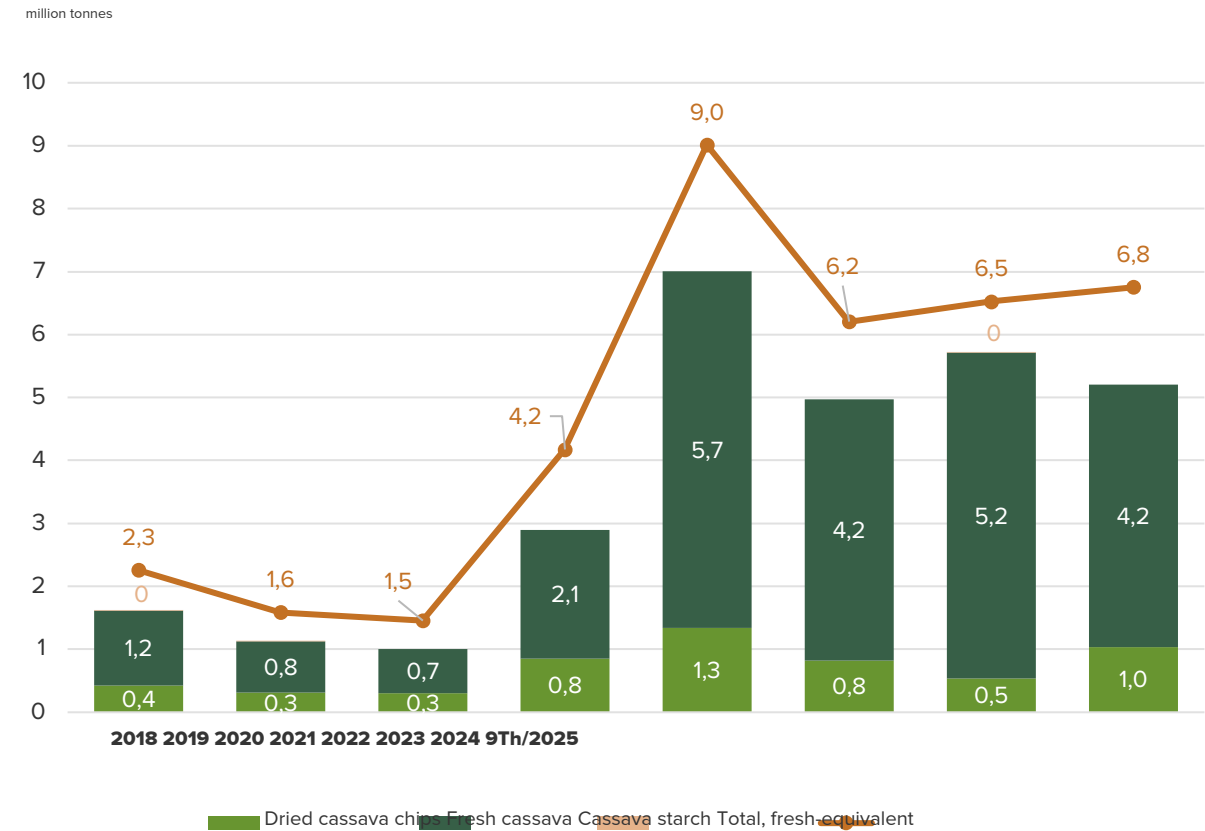
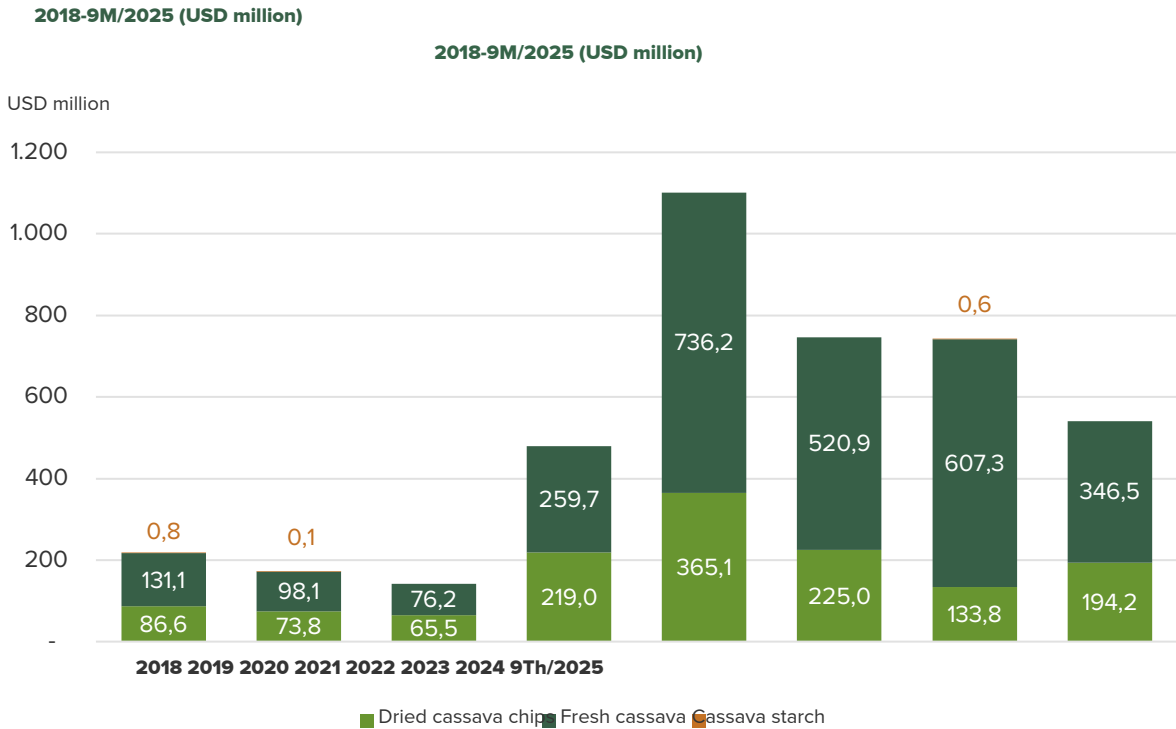


Figure 10. Value of Vietnam's cassava raw material imports from Cambodia by product,



Source: CHQ data, compiled by the Forest Trends research team.

Cassava raw material imports from Lao PDR

According to CHQ, Lao PDR was Vietnam's second-largest supplier of cassava raw materials after Cambodia during 2018-9M/2025. Supply from Lao PDR accounted for 10%-26% of the cassava raw materials consumed annually in Vietnam. Import volumes from Lao PDR increased steadily during 2018-2024, rising particularly sharply in 2021 when fresh-equivalent imports increased by more than 90% from 2020, before remaining roughly at the 2021 level in 2022 and 2023. Imports increased again in 2024, by 18% compared with the previous three years.

In the first nine months of 2025 alone, total fresh-equivalent imports exceeded the full-year 2024 level by more than 46%, including a 2.3-fold increase in cassava starch. Despite the sharp rise in volume, import value in the first nine months of 2025 was only 3.4% above the full-year 2024 total, indicating a substantial decline in cassava import prices in 2025. Whereas Vietnam imports three main cassava products from Cambodia, dominated by fresh cassava, Lao PDR supplies five products, with dried cassava chips accounting for the largest share. This partly reflects Lao PDR's policy in recent years to restrict exports of unprocessed raw materials.

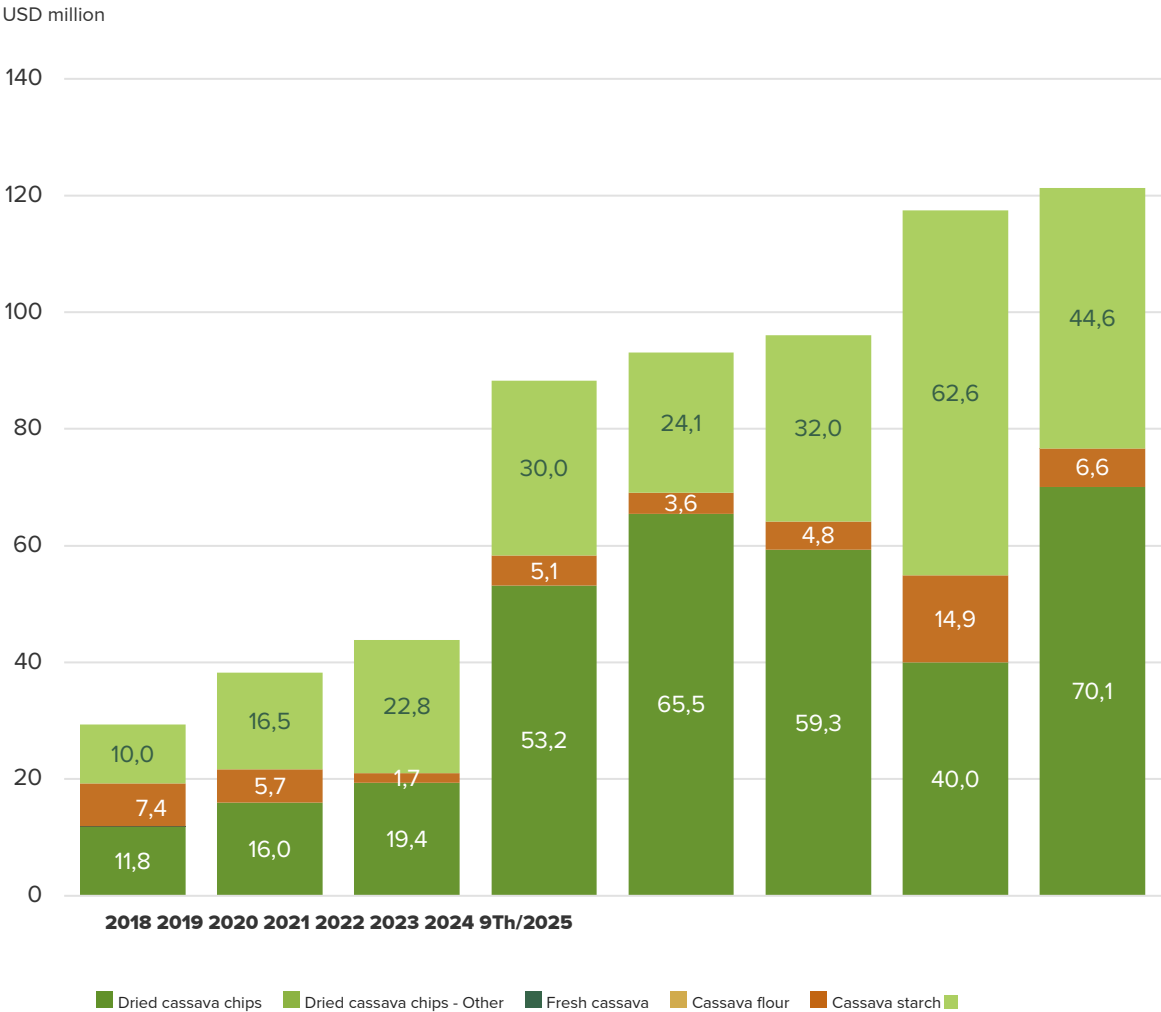
Figures 11 and 12 present the volume and value of Vietnam's cassava raw material imports from Lao PDR by product during 2018-9M/2025.

Figure 11. Vietnam's cassava raw material imports from Lao PDR by product, 2018-9M/2025 (million tonnes)



Source: CHQ data, compiled by the Forest Trends research team.

Figure 12. Value of Vietnam's cassava raw material imports from Lao PDR by product, 2018-9M/2025 (USD million)

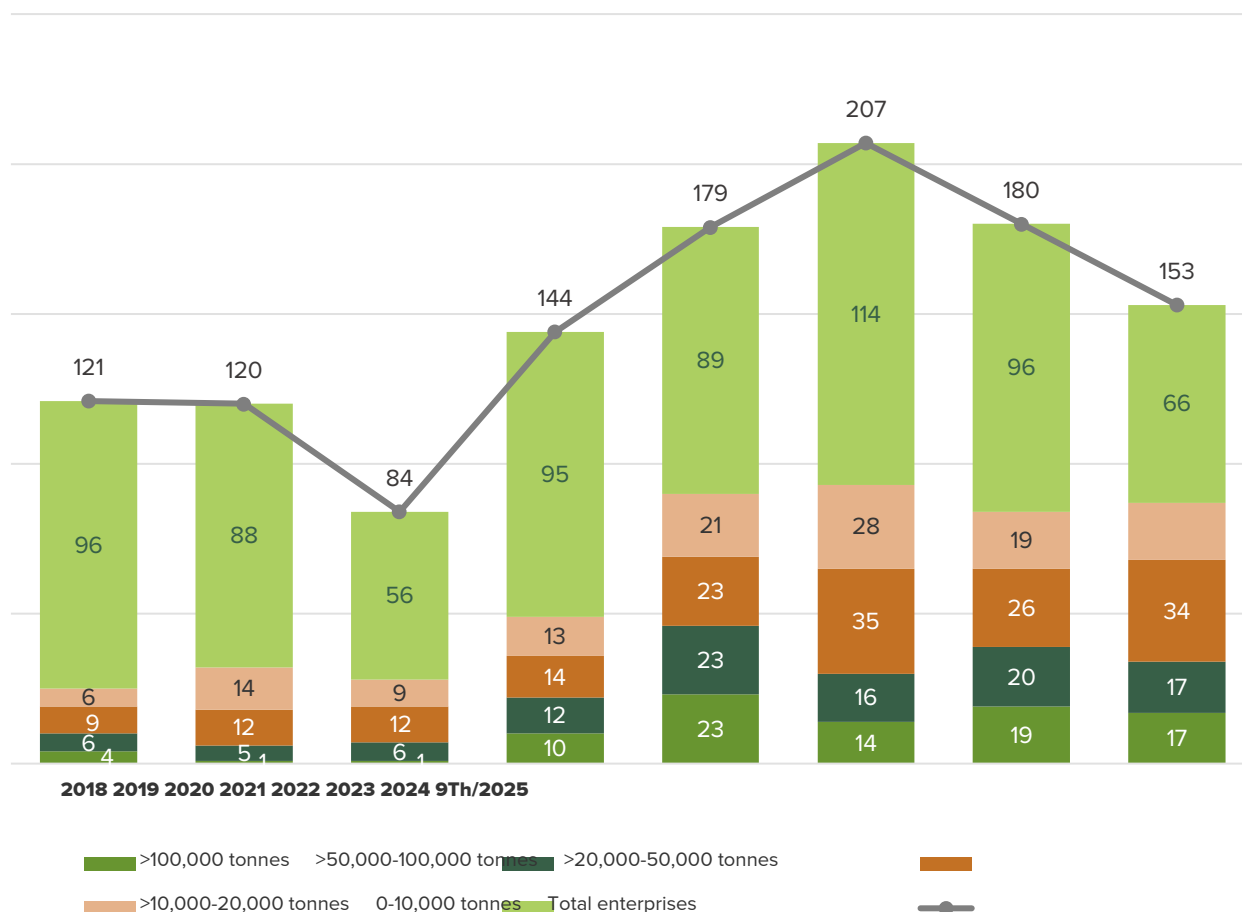


Appendices 3 and 4 provide detailed data on the volume and value of Vietnam's cassava raw material imports by market during 2018-9M/2025.

Cassava raw material importers

CHQ data show that during 2018-9M/2025, between 84 and 207 Vietnamese enterprises directly imported cassava raw materials each year. Most imported only small volumes - up to 10 thousand tonnes per year - and accounted for an average of 61% of all importing enterprises. Since 2022, the number of enterprises importing more than 50 thousand tonnes per year has increased, but they still represented a relatively small share, averaging 21% of all cassava importers. Figure 13 provides detailed data on the number of enterprises directly importing cassava raw materials by import scale during 2018-9M/2025, based on CHQ data.

Figure 13. Number of Vietnamese enterprises directly importing cassava raw materials by import scale, 2018-9M/2025



Source: CHQ data, compiled by the Forest Trends research team.

3. Vietnam's Cassava Raw Material Exports

3.1. Annual Export Volume and Value

CHQ data show that during 2018-2024 Vietnam exported more than 2.4 million to 3.2 million tonnes of cassava raw materials each year, equivalent to 8.6-11.8 million tonnes on a fresh-equivalent basis. Annual export value ranged from nearly USD 1 billion to USD 1.4 billion. Both export volume and value were highest in 2022.

Export volume and value increased steadily from 2018 to 2022 and then declined slightly in 2023 and 2024. In the first nine months of 2025, however, export volume reached 10.9 million tonnes fresh-equivalent - 11% above the full-year 2024 total - while export value was only USD 948 million, equivalent to 82% of the full-year 2024 value. The combination of higher volume and lower value reflects declining prices for these products.¹⁰

¹⁰ The Ministry of Industry and Trade, citing data from China's General Administration of Customs, reported that China's average import price for cassava from Vietnam in the first five months of 2025 fell 33.5% year on year to USD 277.7/tonne (Source: <https://vneconomy.vn/phat-trien-nganh-hang-san-theo-huong-xanh-ben-vung.htm>).

Figure 14 provides detailed information on Vietnam's annual fresh-equivalent cassava raw material export volume and export value during 2018-9M/2025.



Source: CHQ data, compiled by the Forest Trends research team.

3.2. Export Products

According to CHQ data, during 2018-9M/2025 Vietnam exported six cassava raw material products: dried cassava chips (HS 07141011), cassava starch (HS 11081400), fresh cassava (HS 07141099), other dried cassava chips (HS 07141019), cassava flour (HS 11062010), and frozen cassava (HS 07141091). Cassava starch and dried cassava chips were by far the two largest export products, together accounting for more than 99% of annual fresh-equivalent export volume and export value over this period. Annual cassava starch export volume was 3.7-11.8 times that of dried cassava chips, the second-largest product.

During 2018-2024, cassava starch exports generated more than USD 800 million to nearly USD 1.2 billion per year, while dried cassava chip exports generated USD 69-228 million per year.

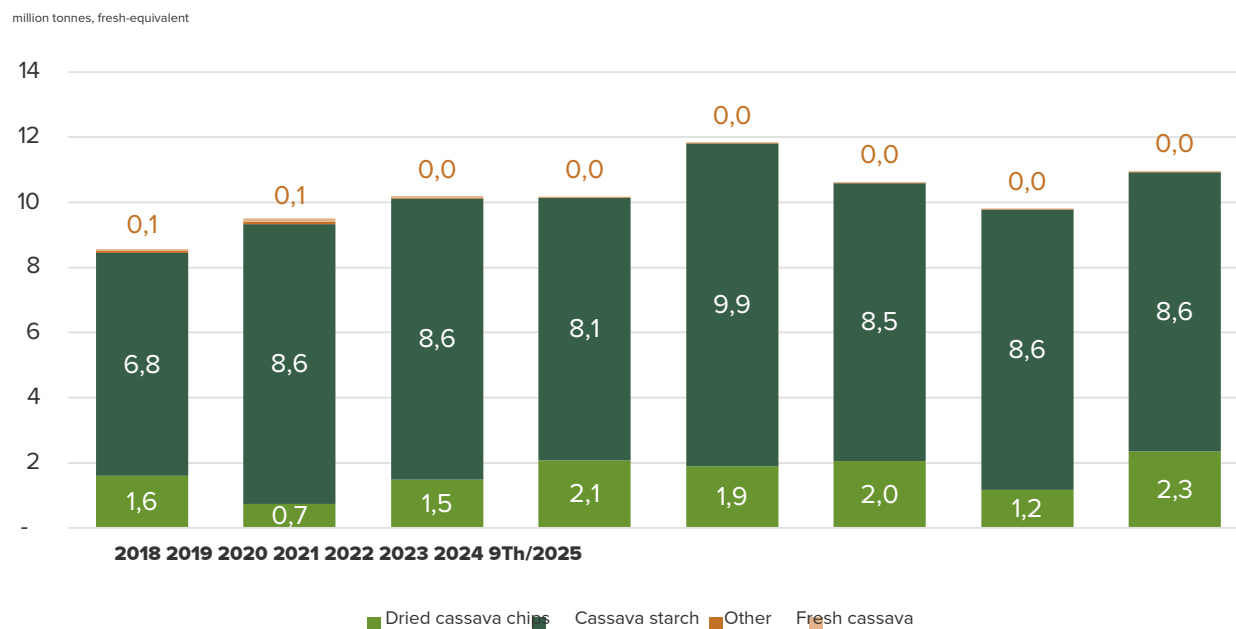
Dried cassava chips and fresh cassava together accounted for an average of 16.5% of annual exports during 2018-9M/2025 on a fresh-equivalent basis.

In the first nine months of 2025, cassava starch export volume was almost equal to the full-year 2024 volume (about 2.15 million tonnes, equivalent to around 8.6 million tonnes fresh-equivalent), but export value was only USD 756 million, 73% of the 2024 total of USD 1.036 billion.

Dried cassava chip exports in the first nine months of 2025 reached 936 thousand tonnes (equivalent to 2.34 million tonnes fresh-equivalent), twice the full-year 2024 volume of 465 thousand tonnes (1.16 million tonnes fresh-equivalent). Export value of dried cassava chips in the first nine months of 2025 was 162% higher than the full-year 2024 value.

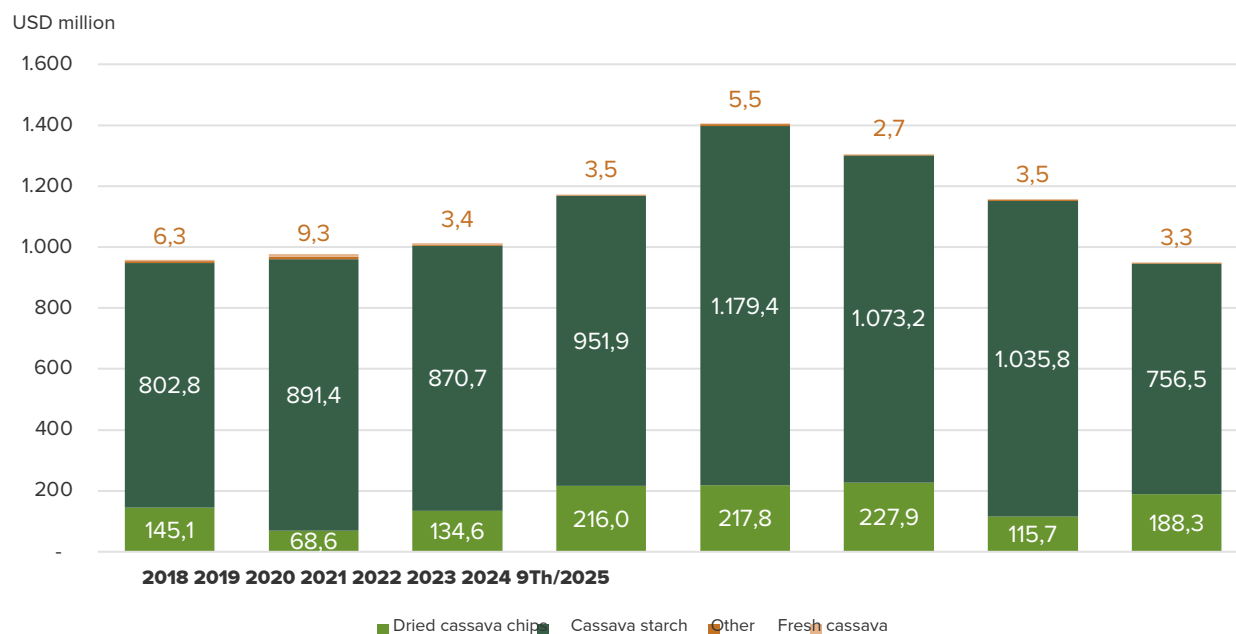
Figures 15 and 16 provide detailed CHQ data on Vietnam's cassava raw material export volume (fresh-equivalent) and value by product during 2018-9M/2025.

Figure 15. Vietnam's cassava raw material exports by product, 2018-9M/2025 (million tonnes, fresh-equivalent)



Source: CHQ data, compiled by the Forest Trends research team.

Figure 16. Value of Vietnam's cassava raw material exports by product, 2018-9M/2025 (USD million)



Source: CHQ data, compiled by the Forest Trends research team.

3.3. Export Markets

with 58-72 markets served in any given year. The main destinations were China, the Republic of Korea, Taiwan, Malaysia, and the Philippines. China was by far the largest market, accounting for more than 90% of annual export value on average.

Export value to China increased from USD 844 million in 2018 to USD 1.28 billion in 2022, an average annual increase of about 14%. It then declined to about USD 1.19 billion in 2023 and USD 1.06 billion in 2024, down 7.5% and 10.6% respectively from the preceding year. In 2024, China accounted for 93.1% of Vietnam's total fresh-equivalent cassava raw material export volume, with all other markets combined accounting for 6.9%. In the first nine months of 2025, exports to China were valued at USD 882 million, equivalent to 83% of the full-year 2024 total.

The Republic of Korea was the second-largest market but accounted for only about 3% of annual export value. All other destinations represented relatively small shares. Figure 17 presents export value by market; Appendices 7 and 8 provide detailed volume and value data.

Figure 17. Value of Vietnam's cassava raw material exports by market, 2018-9M/2025 (USD million)



Source: CHQ data, compiled by the Forest Trends research team.

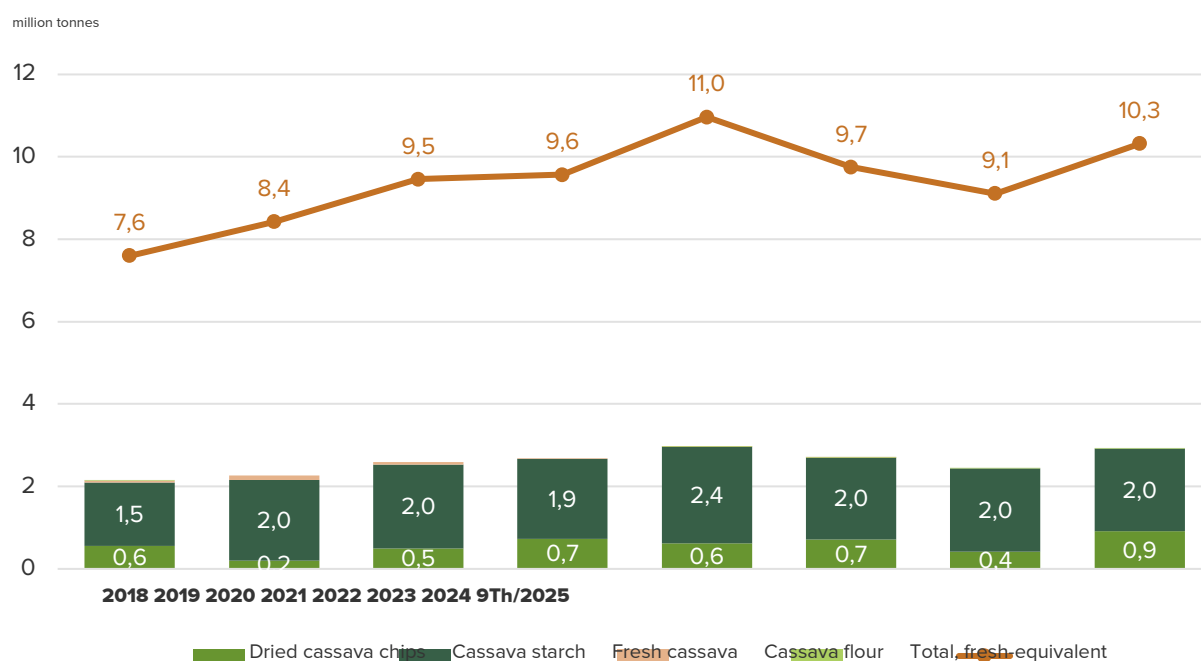
Cassava raw material exports to the Chinese market

During 2018-9M/2025, Vietnam exported four cassava raw material products to China: cassava starch (HS 11081400), dried cassava chips (HS 07141011), fresh cassava (HS 07141099), and cassava flour (HS 11062010). Cassava starch and dried cassava chips were the two largest products. China stopped importing fresh cassava from Vietnam in 2024 and the first nine months of 2025. Vietnam did not export cassava flour to China during 2019-2021; exports of this product resumed from 2022.

Cassava starch exports to China ranged from 1.5 million tonnes (6.2 million tonnes fresh-equivalent) to 2.4 million tonnes (9.4 million tonnes fresh-equivalent) during 2018-2024. This represented 80.7%-92.6% of total fresh-equivalent cassava exports to China, with annual export value ranging from USD 799 million to nearly USD 1.12 billion. Over the same period, China imported an average of 0.54 million tonnes of dried cassava chips (1.34 million tonnes fresh-equivalent) per year, accounting for an average of 14.4% of total fresh-equivalent exports, with average annual export value of USD 132 million.

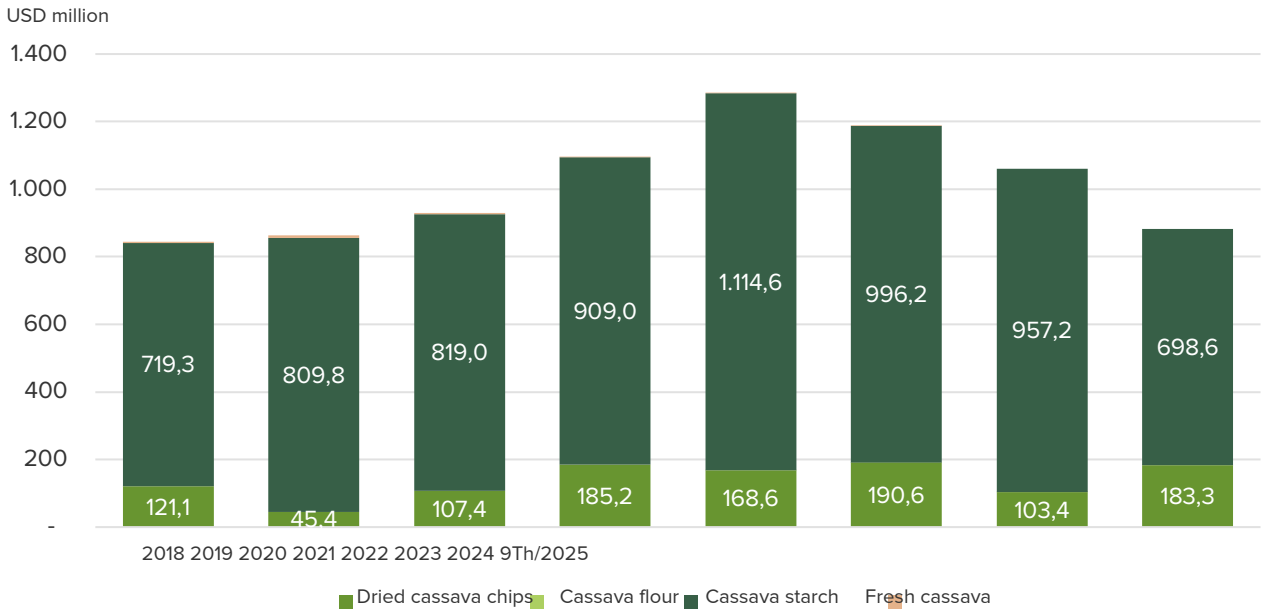
In the first nine months of 2025, Vietnam exported 10.3 million tonnes fresh-equivalent of cassava raw materials to China, 13.3% above the full-year 2024 volume of 9.1 million tonnes, driven by a sharp increase in dried cassava chip exports. Export value, however, reached only USD 882 million, or 83.2% of the 2024 total, indicating a decline in export prices. Figures 18 and 19 present export volume and value to China by product during 2018-9M/2025.

**Figure 18. Vietnam's cassava raw material exports to China
by product, 2018-9M/2025 (million tonnes)**



Source: CHQ data, compiled by the Forest Trends research team.

Figure 19. Value of Vietnam's cassava raw material exports to China by product, 2018-9M/2025 (USD million)



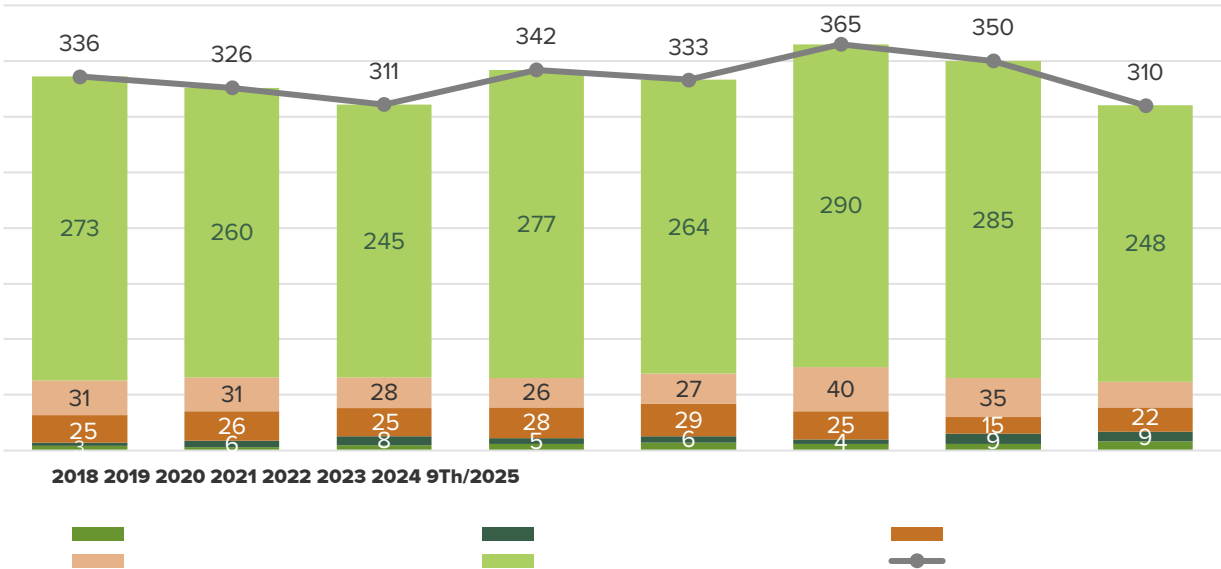
Source: CHQ data, compiled by the Forest Trends research team.

Appendices 9 and 10 provide detailed data on the volume and value of each cassava raw material product exported from Vietnam to China during 2018-9M/2025.

Exporting enterprises

More than 300 enterprises participated in cassava exports each year. Most (80%) were small exporters, with annual export volume of up to 10 thousand tonnes. Large enterprises exporting more than 50 thousand tonnes per enterprise per year accounted for only 3.6% on average (Figure 20).

Figure 20. Number of Vietnamese enterprises directly exporting cassava raw materials by export scale, 2018-9M/2025



Source: CHQ data, compiled by the Forest Trends research team.

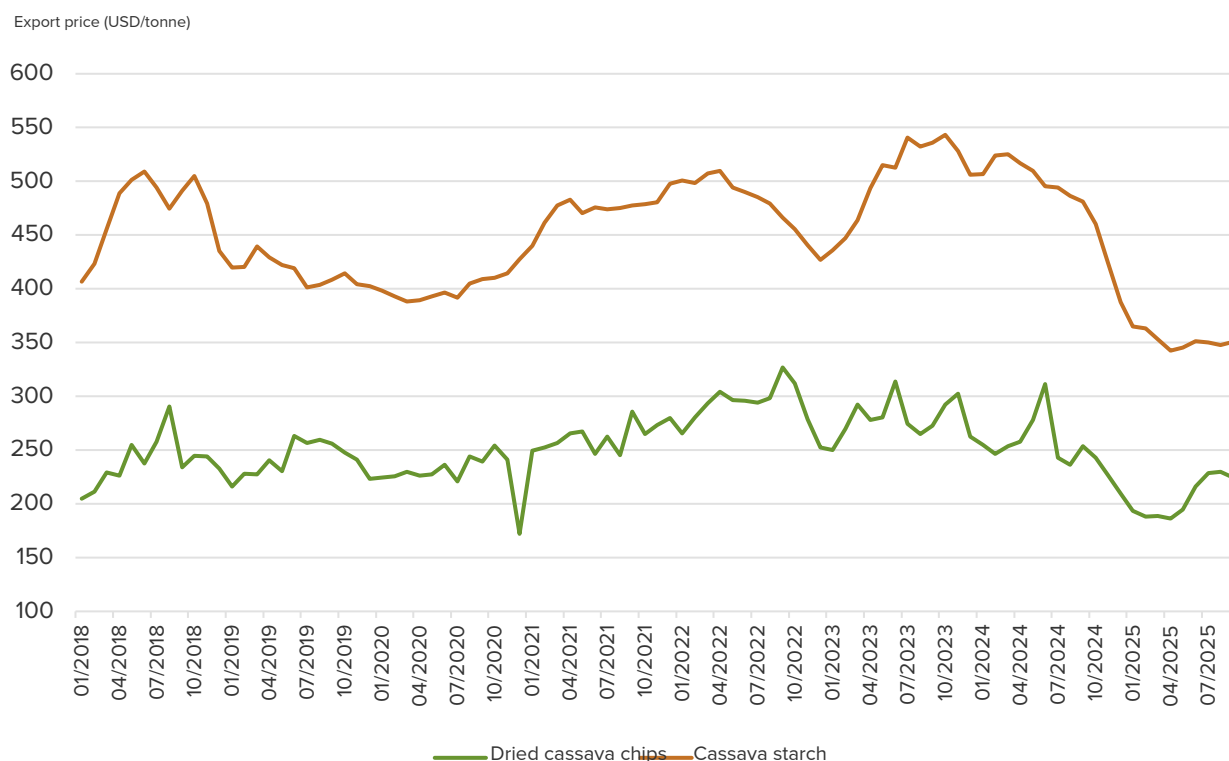
Cassava raw material export prices

Export prices fluctuated considerably. Prices for dried cassava chips were relatively stable overall, generally ranging from USD 220 to USD 300/tonne. Prices declined slightly during 2018-2020, recovered from mid-2021, and remained high in 2022 and 2023. From 2024 through the first half of 2025, prices fell to the lowest level of the entire 2018-9M/2025 period, before increasing slightly from mid-2025.

Cassava starch had a higher and more volatile export price, averaging about USD 390-510/tonne. After a high in 2018, prices declined and reached a low in 2020. Prices recovered strongly in 2021-2022, fell again in late 2022/early 2023, and then rose to a new peak in mid-2023. From 2024 onward, prices declined sharply and continuously, remaining at around USD 340-360/tonne in 2025 - the lowest level since 2018.

The sharp decline in both price and export volume of cassava starch and dried chips to China in 2024 (Figure 18) was attributed to weaker Chinese demand and large inventories accumulated by importers. In the first nine months of 2025, export prices remained low while China's import volume increased strongly, suggesting stock-building when prices were low. Figure 21 shows monthly average export prices for Vietnam's dried cassava chips and cassava starch during 2018-9M/2025.

Figure 21. Monthly average export prices of Vietnamese dried cassava chips and cassava starch, 2018-9M/2025 (USD/tonne)



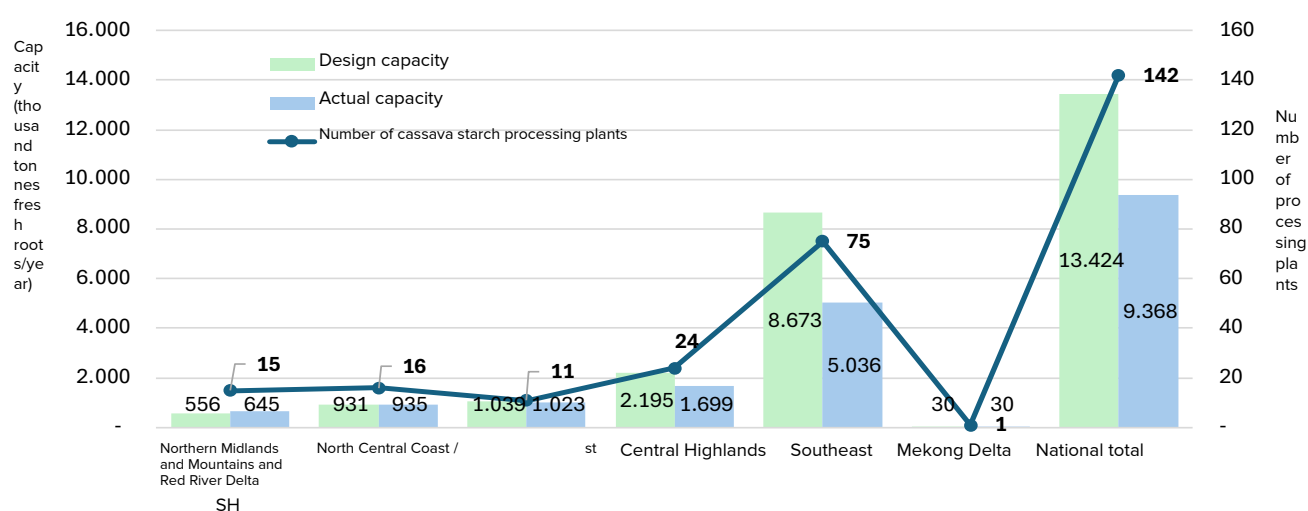
Source: CHQ data, compiled by the Forest Trends research team.

3.4. Cassava Processing Enterprises in Vietnam

Protection (TT&BVT) (2024), cassava starch processors operated factories in 30 provinces/cities, with 142 plants and total design capacity of more than 13.4 million tonnes of fresh roots per year. The Southeast had the largest concentration, with 75 plants and nearly 8.7 million tonnes of annual design capacity, equivalent to 64.6% of the national total. This is consistent with the region's large cassava area and production (second only to the Central Highlands) and its proximity to Cambodia, Vietnam's largest imported cassava source.

Nationwide in 2023, cassava starch plants used 9.37 million tonnes of fresh roots to produce about 3 million tonnes of starch, operating at nearly 70% of design capacity. Plants in the Southeast, Central Highlands, and South Central Coast operated below design capacity; notably, Southeast plants operated at only 58%. By contrast, plants in the North Central Coast, Northern Midlands and Mountains, and Red River Delta exceeded design capacity by 0.4%-16%.¹¹ The main reason is insufficient cassava raw material supply in some regions relative to the number and capacity of local processing plants.

Figure 22. Number of cassava starch processing enterprises in Vietnam and processing capacity by ecological region, 2023/24



Source: Department of Crop Production (2024).

In addition, the Department of Crop Production reported in June 2024 that Vietnam had four biofuel plants producing E100 ethanol, located in Binh Phuoc, Dong Nai, Quang Nam, and Dung Quat. However, only two plants were operating, each with capacity of 200,000 m³ of E100; together they require 500,000 tonnes of dried cassava raw material per year.¹²

¹¹ Source: Department of Crop Production, 2024.

¹² Report: 'Cassava production, processing and consumption results for 2015-2022, orientations and solutions for cassava development in the coming period.' Department of Crop Production. Cassava sector conference in Tay Ninh, June 27, 2024.

4. Vietnam's Cassava Supply Chain and Policies Supporting Sector Development

4.1. Vietnam's Cassava Supply Chain

Because cassava has diverse end uses, it has become a crop that provides relatively stable income for farming households. Cassava starch is widely used in food and consumer industries (instant noodles, confectionery, monosodium glutamate, alcohol, adhesives, cosmetics), pharmaceuticals and chemicals (medicines, medical alcohol), and energy (ethanol/biofuel). Cassava peels and pulp are used for animal feed and biofertilizer, as well as paper and pressed wood. Cassava leaves are used as feed for silkworms and fish or as organic fertilizer. Stems are used as planting material and mushroom-growing substrate.¹³

Overall, Vietnam's cassava supply chain includes the following components:¹⁴

Domestic cassava-growing households

Domestic cassava raw materials are supplied primarily by smallholder households.¹⁵ Cassava is grown on household agricultural or forestry land, either as a monocrop or intercropped while the main crop (for example, rubber) has not yet closed its canopy. About 1.2 million households currently grow cassava nationwide. Nearly all household production is marketed; only a small share (2%-3% of household supply) is retained for livestock, poultry or fish feed, or household uses such as alcohol production.

Domestic cassava traders and trading enterprises

Households market cassava through networks of local traders or agents. Traders purchase cassava from households and resell it to processing plants, acting as intermediaries between farmers and processors. About 95% of household cassava is sold through agents. The remaining 5%, generally from larger farms located near processing plants, is sold directly by households to processors. In flat cassava-growing areas such as Tay Ninh and Binh Phuoc, traders often buy entire unharvested fields, then organize harvesting and transport to larger agents or processing plants.¹⁶ Purchase prices are determined according to starch content in the roots.¹⁷

¹³ Report by the Department of Crop Production and the Vietnam Cassava Association presented at the Cassava Sector Conference in Tay Ninh on June 27, 2024.

¹⁴ Based on field surveys conducted at study sites from August to October 2024, combined with 2024 CHQ and CTK data and reports/presentations by the Vietnam Cassava Association and Department of Crop Production at the Cassava Sector Conference in Tay Ninh on June 27, 2024.

¹⁵ Some forestry, rubber or fruit enterprises may plant cassava on vacant or unused land or intercrop cassava before the main crop closes its canopy. However, almost no enterprises select cassava as their primary crop, and the area planted by this group is insignificant because cassava provides relatively low returns and has a longer production cycle than crops such as maize or beans.

¹⁶ In a small number of cases, traders buy household fields several months before harvest (earlier purchases are cheaper) and maintain the crop until harvest.

¹⁷ Fresh cassava root prices paid to households in Vietnam are based on the root's starch grade/content. Transaction value is determined from starch content together with weight and root 'cleanliness' (amount of soil attached).

In cassava-growing areas on sloping land, particularly in the northern mountains, households generally harvest cassava themselves and transport it to collection points accessible to traders. Household-agent transactions are normally bulk sales by weight.¹⁸ Agreements between cassava-growing households and traders are usually verbal, without written sales contracts.

Traders resell fresh cassava to trading enterprises. These enterprises are generally much larger than local traders and may purchase hundreds of tonnes per day. They may supply all purchased fresh cassava to processing plants, or chop and dry the roots and sell dried cassava chips to other buyers. Some enterprises export directly.

Imported cassava raw material trading enterprises

Vietnam imports large volumes of cassava from around ten markets, especially Cambodia (the largest source) and Lao PDR (the second largest). Imported cassava raw materials include fresh roots, dried cassava chips, and crude starch. Cambodia mainly supplies fresh roots and dried chips, while Lao PDR mainly supplies dried chips and cassava starch.

Imports from Cambodia and Lao PDR are handled by trading enterprises. These may be Vietnamese or Cambodian firms for imports from Cambodia, and Vietnamese or Lao firms for imports from Lao PDR. They purchase cassava from multiple sources in those countries¹⁹ and resell it to other domestic trading firms or directly to Vietnamese processing plants. Some Vietnamese companies that invest in cassava farms and/or processing plants in Lao PDR or Cambodia import cassava from their overseas subsidiaries to the parent company in Vietnam. Cross-border trade is conducted under applicable import-export regulations.

The cassava supply chain is seasonal and depends on harvest timing. Some processing plants must temporarily suspend production when raw materials are unavailable before the harvest season.

Domestic processing and trading enterprises

Two groups of enterprises participate in processing: (i) primary/coarse processors and (ii) refining/deep-processing enterprises. Primary processors use fresh roots or dried chips to produce intermediate products for subsequent deep processing, such as crude starch and cassava pulp. Refiners use these intermediate inputs to produce higher-value or finished products such as modified starch, glucose, and maltose. Some enterprises conduct both primary and refined processing. According to the Vietnam Cassava Association, many domestic enterprises have mastered the technology for

¹⁸ In practice, traders also rely on processing-plant purchase prices - which plants calculate based on the quality of roots grown locally - and on their own experience assessing quality by observation to determine the price offered to households.

¹⁹ Cassava in Cambodia and Lao PDR is grown on three types of land: household-owned land, land leased by the state to enterprises (land concessions), and household land leased by enterprises under contract farming. Some Vietnamese investors in the two countries lease land from the state or households, either directly or through other concessionaires/lessees. There is currently no official information on which land category supplies cassava imported from these countries into Vietnam. Available information suggests that cassava exported from Cambodia to Vietnam is mainly produced by households (Source: <https://bpb-ap-se2.wpmucdn.com/blog.une.edu.au/dist/4/1340/files/2024/05/AAP-Vol-27-Paper-4-Thong-4bf36ce9eeb06b8e.pdf>). Viengsavang et al. (2023) similarly report that cassava in Lao PDR is mainly produced by farming households.

modified cassava starch processing, with estimated output of about 200,000 tonnes per year.²⁰ Around 5% of cassava starch plants in Vietnam have invested in maltose and/or glucose production, also at an estimated scale of about 200,000 tonnes per year; 70% is supplied to domestic food and beverage manufacturers and the remaining 30% is exported.²¹

Processing enterprises purchase cassava raw materials through collection stations in cassava-growing areas, directly from households (to a limited extent), from domestic traders and trading enterprises, and from trading enterprises sourcing imported cassava.

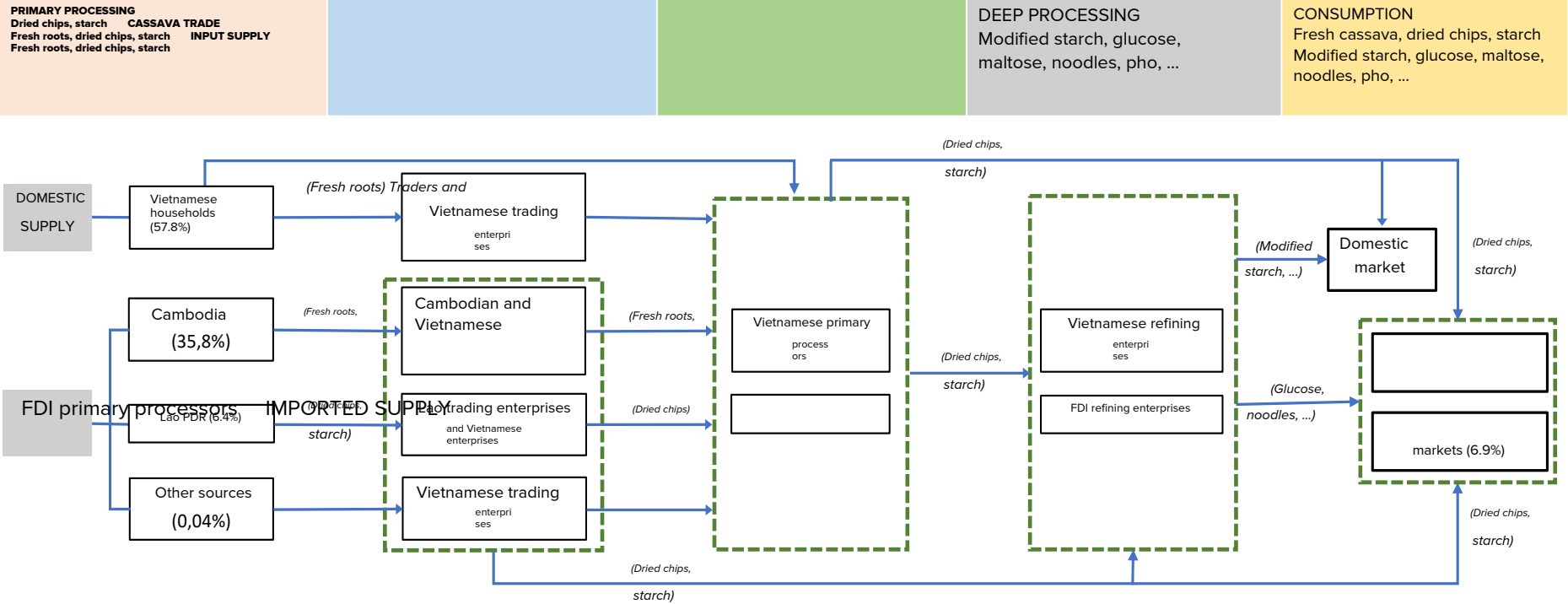
Both domestic and foreign-invested enterprises participate in primary and refined processing. However, no detailed information is currently available on the production activities of each enterprise type.

Figure 23 provides an overview of Vietnam's cassava supply chain in 2024.

²⁰ Information from the Vietnam Cassava Association presentation at the Cassava Sector Conference in Tay Ninh on June 27, 2024. The Association did not specify when this modified starch output was produced and marketed, or whether it was exported.

²¹ Vietnam Cassava Association presentation at the Cassava Sector Conference in Tay Ninh on June 27, 2024.

Figure 23. Overview of Vietnam's cassava supply chain in 2024



Note: Shares of imported and exported cassava raw materials are calculated on a fresh-equivalent basis using 2024 volumes.

Source: Forest Trends research team calculations based on CTK and CHQ 2024 data; reports by the Department of Crop Production and Vietnam Cassava Association (June 2024); and field surveys of cassava-growing households (Aug-Oct 2024 and Aug-Sep 2025) in Monduliri Province (Cambodia), cassava traders and households in Attapeu Province (Lao PDR), and cassava processors, traders and households in Binh Phuoc, Kon Tum, Son La, Tay Ninh, and Yen Bai (Vietnam).

4.2. Policies Supporting Development of Vietnam's Cassava Sector

sector today and in the future. In recent years, the Government has issued several mechanisms and policies to support sector development. Most notable is the Scheme for Sustainable Development of the Cassava Sector to 2030, with a Vision to 2050, which demonstrates Vietnam's commitment to improving efficiency, sustainability, and economic value. The Scheme aims to increase productivity, quality, and the share of deep processing while expanding the area under sustainable cultivation. Key measures include improved varieties, science and technology, digital transformation, and stronger value-chain linkages. The cassava sector also benefits from broader agricultural support policies, including incentives for production linkages (Decree 98/2018), enterprise investment (Decree 57/2018), and collective economic development (Decree 113/2024).

Scheme for Sustainable Development of the Cassava Sector to 2030, with a Vision to 2050

Sustainable development of the cassava sector is a national priority, and cassava has been included among Vietnam's key national crops.²² In April 2024, the Minister of Agriculture and Rural Development (now the Ministry of Agriculture and Environment) issued Decision 1115/QĐ-BNN-TT approving the Scheme for Sustainable Development of the Cassava Sector to 2030, with a Vision to 2050.²³ Its overall objective is to develop a stable, efficient and sustainable sector; strengthen linkages among production, processing and consumption to create higher economic value; contribute to employment, poverty reduction and improved rural livelihoods; raise export value; and protect the environment.

By 2030, the Scheme targets a national cassava area of about 480-510 thousand ha and fresh-root production of 11.5-12.5 million tonnes, with about 85% of fresh cassava used for deep processing into products such as starch, ethanol and MSG. It also targets 40%-50% of cassava area planted with quality-standard varieties, 50% under sustainable cultivation practices, and cassava/product exports of USD 1.8-2.0 billion. By 2050, 70%-80% of the cassava area is expected to use sustainable cultivation practices, more than 90% of fresh cassava production to be used for deep processing, and export value to reach about USD 2.3-2.5 billion.

Key solutions include: (1) breeding and importing new high-yield, high-starch and pest-resistant varieties; (2) applying science and technology, digital transformation and mechanization in production and processing; and (3) maintaining existing markets while expanding into new ones.

Policy to encourage cooperation and linkages in agricultural production and product marketing
On July 5, 2018, the Government issued Decree 98/2018/ND-CP²⁴ on policies encouraging cooperation and linkages in agricultural production and product marketing, effective July 20, 2018. Its main provisions include: (1) encouraging linkages among farmers, cooperatives and enterprises

²² <https://baohinhphu.vn/phot-trien-san-tro-thanh-cay-trong-chu-luc-quoc-gia-10224062807512415.htm>

²³ See details at: <https://thuvienphapluat.vn/van-ban/Linh-vuc-khac/Quy-dinh-1115-QĐ-BNN-TT-2024-De-an-Phat-trien-ben-vung-nganh-hang-san-den-2030-608415.aspx>

²⁴ <https://vanban.chinhphu.vn/default.aspx?pageid=27160&docid=194092>

in agricultural production and marketing; (2) supporting the cost of developing linkage models and related infrastructure such as storage facilities and in-field roads; (3) supporting training and capacity building for parties participating in linkages; and (4) facilitating contracts linking production and product marketing.

Mechanisms and policies encouraging enterprise investment in agriculture and rural areas

On April 17, 2018, the Government issued Decree 57/2018/ND-CP²⁵ on mechanisms and policies encouraging enterprises to invest in agriculture and rural areas. Enterprises with eligible projects may receive exemptions or reductions in land and water-surface rents; state support for project infrastructure such as transport, electricity, water, and waste treatment; post-investment interest support and improved access to credit; and support for research, technology transfer, technical training, market development, promotion, and branding.

Policies supporting cooperative groups, cooperatives, and unions of cooperatives

On September 12, 2024, the Government issued Decree 113/2024/ND-CP²⁶ detailing provisions of the 2023 Law on Cooperatives, including policies to support cooperative groups, cooperatives, and unions of cooperatives. The policies are intended to enable collective economic organizations to develop sustainably and contribute to new rural development and a modern cooperative economy. The State supports 100% of training and capacity-building costs for members and workers; access to information and advisory networks; replication of effective cooperative models; infrastructure and equipment investment; application of science, technology and digital transformation; conferences, workshops, market surveys, and development planning; and audit, financial advisory, and risk-assessment costs. Agricultural cooperatives receive priority for production infrastructure support.

The Prime Minister has also issued policies to reduce agricultural losses²⁷ and support breeding/seed production for agricultural restructuring.²⁸ Organizations and individuals engaged in cassava production and processing are among the eligible beneficiaries.

These policies have had positive effects on domestic cassava production and processing. Cassava-growing provinces have prepared sustainable cassava development plans based on the national Scheme, providing a basis for local investment, investment attraction and targeted support. According to the Department of Crop Production (now the Department of Crop Production and Plant Protection),²⁹ many

²⁵ <https://thuvienphapluat.vn/van-ban/Doanh-nghiep/Nghi-dinh-57-2018-ND-CP-chinh-sach-khuyen-khich-doanh-nghiep-dau-tu-vao-nong-nghiep-nong-thon-351740.aspx>

²⁶ <https://thuvienphapluat.vn/van-ban/Doanh-nghiep/Nghi-dinh-113-2024-ND-CP-huong-dan-Luat-Hop-tac-xa-564191.aspx>

²⁷ Decision 68/2013/QĐ-TTg of the Prime Minister dated November 14, 2013 on policies to reduce losses in agriculture (<https://thuvienphapluat.vn/van-ban/Tai-chinh-nha-nuoc/Quy-dinh-68-2013-QĐ-TTg-chinh-sach-ho-tro-giam-ton-that-nong-nghiep-213484.aspx>).

²⁸ Decision 703/QĐ-TTg of the Prime Minister dated May 28, 2020 approving the research and seed-production development program supporting agricultural restructuring for 2021-2030 (<https://datafiles.chinhphu.vn/cpp/files/vbpq/2020/05/703.signed.pdf>).

²⁹ Department of Crop Production (2024), 'Current status and solutions for cassava production development in northern provinces,' presented at the conference 'Sustainable cassava production on sloping land,' Yen Bai, August 9, 2024.

production linkage and offtake models between cassava starch processors, cooperative groups, cooperatives, and cassava-growing households have been established in many provinces, covering thousands of hectares per year.³⁰ Linkages among cooperatives, cassava-growing households, and research institutions have also been developed in some localities to test and produce new disease-free and disease-resistant cassava varieties.³¹

5. Sustainable Development of Vietnam's Cassava Sector: Key Issues for Consideration

5.1. Role of Cassava in Cassava-Growing Households' Livelihoods

In Vietnam, cassava is no longer used primarily as a food staple. It is grown mainly to generate household income and is particularly important to livelihoods in mountainous communities where production land is limited. Rapid surveys by the research team found that cassava income accounted for 30%-50% of household income in Tan Chau District (Tay Ninh), 20%-30% in Sa Thay District (Kon Tum), and 25%-60% in Thuan Chau and Mai Son districts (Son La), reaching as high as 70% for some households.³²

In Lao PDR, cassava area expanded rapidly from the late 2010s. The Laotian Times reported on July 17, 2023 that demand had surged, making cassava the country's most profitable crop; many farmers had shifted from rice and rubber to fully commercial cassava production.³³ In 2020, cassava generated USD 220 million for cassava-growing households.³⁴ Viengsavang et al. (2023) found that production is carried out mainly by households and provides a significant share of household income, second only to rice.³⁵ A Forest Trends rapid survey in Attapeu in August 2024 found cassava income accounted for 20%-30% of income for some households.

Some Lao experts have warned that oversupply could cause price declines, creating substantial risks for the economy and for farmers who converted rubber or other crops to cassava. As one economist cited by the Laotian Times noted, sharp price declines or oversupply could reduce farmer income and profits, particularly for households relying on cassava as their main income source. Farmers who switched from rubber or other crops may be especially vulnerable to market and price volatility. Lao PDR could also face adverse macroeconomic consequences. A sharp fall in cassava prices

³⁰ Typical linkage models operate in Cao Bang, Hoa Binh, Yen Bai, Nghe An, Ha Tinh, Quang Binh, Quang Tri, and other provinces. A common model is for processors to advance cassava planting material and fertilizer to households (directly or through cooperative groups/cooperatives), recovering the advance when purchasing cassava raw materials (Department of Crop Production, 2024).

³¹ Department of Crop Production (2024).

³² Survey conducted August-September 2024.

³³ Cassava Profits Conceal Alarming Environmental Threat in Laos. Laotian Times. July 17, 2023 (Source: <https://laotiantimes.com/2023/07/17/cassava-profits-conceal-alarming-environmental-threat-in-laos/>)

³⁴ Viengsavang Thipphavong et al. (2023) Determinant Factors of Lao Farmers' Engagement to Agricultural Value Chains: A Case Study of Cassava. Feed the Future. Research Paper #15. May 2023 ([https://www.canr.msu.edu/prci/publications/\(08%20June%202023\)_PRCI.Laos_Final.SD.RV02_Cleaned.pdf](https://www.canr.msu.edu/prci/publications/(08%20June%202023)_PRCI.Laos_Final.SD.RV02_Cleaned.pdf))

³⁵ Viengsavang Thipphavong et al. (2023) Determinant Factors of Lao Farmers' Engagement to Agricultural Value Chains: A Case Study of Cassava. Feed the Future. Research Paper #15. May 2023 ([https://www.canr.msu.edu/prci/publications/\(08%20June%202023\)_PRCI.Laos_Final.SD.RV02_Cleaned.pdf](https://www.canr.msu.edu/prci/publications/(08%20June%202023)_PRCI.Laos_Final.SD.RV02_Cleaned.pdf))

could reduce agricultural exports and foreign-exchange earnings. Oversupply could also lead to cassava stockpiles with limited demand, creating financial pressure on farmers as well as storage constraints and crop waste.³⁶

In Cambodia, cassava is also produced mainly by smallholders and contributes significantly to household livelihoods.³⁷ Cambodia's agricultural survey recorded 209 thousand cassava-producing households in 2021.³⁸ Alice Beban and Christophe Gironde (2023)³⁹ found that in several major cassava-growing areas, households devoted 23%-34% of their agricultural land to cassava, the second-largest share after cashew, underscoring cassava's importance to local livelihoods.

5.2. Impacts of Cassava Cultivation on Forest Resources

In Vietnam

Vietnam's cassava-growing area has generally declined over the past decade, but it continues to expand in several major cassava-producing provinces in the northern mountains and Southeast. During 2020-2024, cassava area increased by 8.5 thousand ha in Dien Bien, 7.3 thousand ha in Son La, 4.4 thousand ha in Tay Ninh, and 1.1 thousand ha in Dong Nai.⁴⁰ Most of these provinces also have large forest areas. No official statistics identify the land types on which new cassava areas were established or whether forest land was converted to cassava.⁴¹

Nevertheless, recent sources document forest encroachment specifically for cassava cultivation. Dan Tri reported that in Dak Ha District, Kon Tum, more than 11,000 m² of natural forest was cleared for cassava in March 2024; several people received prison sentences of 20-24 months for the offense.⁴²

Forest Trends surveys in several provinces during August-October 2024 also found that encroachment into forest land - including protection and natural forest - for agricultural production, including cassava, remained relatively common although generally small in scale. In Thuan Chau District, Son La, some households had expanded cassava into forest in the previous two to three years by using forest land adjacent to household fruit orchards. A village head in Bo Muoi Commune said cases of encroachment for cassava could occur, although he was not aware of any case where forest rangers had intervened. Another village head explained that household cassava fields were fixed agricultural plots; depending on location, planted forest or protection forest receiving PFES payments might lie above them, or the entire hill could be household agricultural land. In recent years the number of cassava growers and cassava area in the village had increased because of favorable prices.

³⁶ Cassava Profits Conceal Alarming Environmental Threat in Laos. *Laotian Times*, July 17, 2023 (Source: <https://laotiantimes.com/2023/07/17/cassava-profits-conceal-alarming-environmental-threat-in-laos/>)

³⁷ <https://bpb-ap-se2.wpmucdn.com/blog.une.edu.au/dist/4/1340/files/2024/05/AAP-Vol-27-Paper-4-Thong-4bf36ce9eeb06b8e.pdf>

³⁸ <https://www.nis.gov.kh/nis/CAS23/CAS%202021%20-%20Report%20%20-%20Crop%20Production%20-%20ENG.pdf>

³⁹ <https://doi.org/10.1080/1747423X.2023.2190744>

⁴⁰ Source: <https://www.nso.gov.vn/px-web-2/?pxid=V0630&theme=Nông%2C%20lâm%20nghiệp%20và%20thủy%20sản>.

⁴¹ Official reports on forestry-law violations by the forestry authority (now the Department of Forestry and Forest Protection), including national numbers of cases and forest area cleared for production, have not been published on the agency's portal since the March 2014 report; these reports have therefore not been broadly shared for more than ten years.

⁴² https://dantri.com.vn/phap-luat/5-nguoi-linh-an-tu-vi-pha-rung-de-lay-dat-trong-san-20241117163911234.htm?utm_source=chatgpt.com (published November 17, 2024).

The village head did not know the exact locations where households had encroached into forest for cassava, but acknowledged the practice. He recalled that in 2023 local forest rangers had warned that villagers were burning protection forest to obtain production land, without specifying locations. He then used the village loudspeaker system to remind households to burn fields carefully, prevent fires from spreading into forest, and not clear forest for crops.

A forest ranger and a commune leader in Thuan Chau also said forests could not be protected absolutely and forest clearing for swidden fields still occurred. Some cases resulted in administrative fines; others were transferred to police for criminal investigation. In some cases offenders were only warned and required to replant the burned or cleared area. Difficult terrain, limited staff and budgets prevent continuous patrols, so rangers prioritize areas with extensive protection/natural forest and forest-fire prevention. Another village head confirmed that small-scale expansion into forest land for agriculture still occurred, and that field burning sometimes spread into forest, although affected areas were usually small.

A household representative in Thuan Chau said the family had not cleared additional forest for cassava or other crops but had heard of such cases on other hills. The respondent did not know whether other households had been penalized or what forest category was involved, but said burning forest to create fields occurred across the commune. Another household similarly reported hearing of forest clearing for crops, with some cases fined and others not; where fines were imposed, households were required to replant forest and could not cultivate crops on the cleared land.

In another village in Mai Son District, Son La, the village head said forest clearing for agricultural expansion had once been widespread across all villages in the commune, though it had declined in recent years. Clearing for maize and cassava still occurred annually, generally at smaller scale. Forest at hilltops above cassava fields was especially prone to incremental encroachment, often only a few meters at a time. Detected violations generally resulted in administrative records and fines based on area and forest type, signed by commune land officers, commune leaders and forest rangers. In 2023 several households were reportedly fined VND 6,000/m², while a large protection-forest clearing case was criminally prosecuted.

These accounts indicate that forest loss for agricultural land, including cassava, is continuing. PFES-eligible forest area in the locality has also declined because of swidden clearing and forest fires. The village head said a 2003 certificate issued to the village community covered more than 600 ha of protection forest, while only 513 ha is now eligible for PFES payments - a reduction of about 90 ha. Son La Newspaper has also reported protection-forest clearing for agriculture and coffee, further indicating continued loss of natural forest for agricultural production.⁴³

⁴³ See details at: <https://baosonla.org.vn/phong-su/kien-quyet-xu-ly-viec-lan-chiem-pha-rung-qFs7nDj4g.html>

In Tram Tau District, Yen Bai, local households grow cassava mainly for their own livestock rather than commercial sale because road access is very poor. Even so, incremental forest clearing for crops including rice, maize and cassava still occurs. A village head stated that forest burning for swidden cultivation happens every year; when rangers identify an offender, the person is administratively fined and required to replant the cleared area. Most affected forest was reported to be protection forest receiving PFES payments, including forest managed by village communities, a protection forest management board, and district forest rangers. Penalties vary by the forest condition before clearing and the area affected. In the two villages surveyed in Tram Tau, no criminal cases had been recorded in recent years, although violations were reported annually.

On forest land managed by Binh Thuan Forestry One-Member Limited Liability Company, encroachment and occupation of forestry land were reported to be increasingly complex in hotspots such as northern Binh Thuan, Ham Thuan Bac, and Ham Thuan Nam. One identified cause was that some ethnic minority residents living in and near company forests face difficult livelihoods and shortages of cultivation land, leading to encroachment on company land for short-cycle agricultural crops.⁴⁴



Tum (photo taken August 2024)

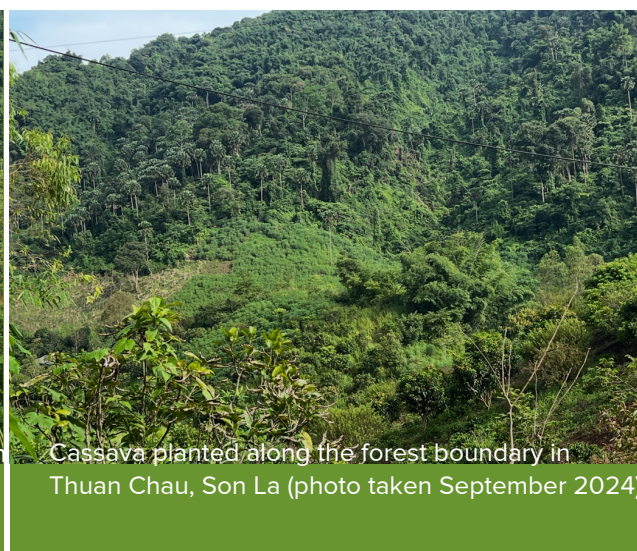


Kon Tum (photo taken August 2024)

⁴⁴ Discussion paper 'Results and difficulties in restructuring and reforming operations of Binh Thuan Forestry One-Member Limited Liability Company,' presented by the company at the workshop on solutions to accelerate restructuring, improve performance and strengthen land management in forestry companies, organized by MARD and the Vietnam Association of Agricultural Economics and Rural Development, Hanoi, October 4, 2024.



Cassava planted along the forest boundary in Thuan Chau, Son La (photo taken September 2024)



Cassava planted along the forest boundary in Thuan Chau, Son La (photo taken September 2024)

Cambodia and Lao PDR are Vietnam's two major cassava supply sources. In 2023, Vietnam was the second-largest import market for Lao cassava (after China)⁴⁵ and Cambodian cassava (after Thailand).⁴⁶

In Lao PDR

Cassava is grown on state land concessions to enterprises and on land leased from households under contract farming, mainly by FDI enterprises from China, Thailand, and Vietnam. It is also grown on household land (Mienmany, 2022). Lao cassava area increased more than tenfold from 6,755 ha in 2005 to 101,200 ha in 2019 (Mienmany, 2022 citing MAFF, 2020), and to 249,279 ha in 2023, making cassava a major agricultural commodity.⁴⁷ Production is concentrated in central and southern Lao PDR near the Vietnamese border, facilitating exports to Vietnam.⁴⁸ Households have converted land formerly used for maize, coffee and vegetables to cassava where soils became depleted or market prices for other crops declined (Mienmany, 2022).

In recent years, many households have also converted forest land to cassava, with negative impacts on forests and the environment. The *Laotian Times* reported that cassava expansion has driven large-scale deforestation and encroachment into conservation forests.⁴⁹ In Champasak Province, cassava growers were reported to have encroached into protected forest, with hundreds of trees recently felled in the Dong Hua Sao National Biodiversity Conservation Area. Social-media images cited by the newspaper showed large felled trees inside the protected area.⁵⁰ The article stated that converting forest to cassava not only causes the loss of valuable forest ecosystems but also increases carbon emissions, air pollution and wildfire risk,

⁴⁵ *Cassava Profits Conceal Alarming Environmental Threat in Laos*. *Laotian Times*. July 17, 2023 (Source: <https://laotiantimes.com/2023/07/17/cassava-profits-conceal-alarming-environmental-threat-in-laos/>)

⁴⁶ Cambodia's cassava exports to Vietnam were valued at USD 213 million in 2023, compared with USD 221 million to Thailand (Source: <https://oec.world/en/profile/bilateral-product/cassava/reporter/khm>).

⁴⁷ https://tapchilaoviet.org/tin-ngay/san-la-mat-hang-nong-san-chu-luc-cua-lao-66295.html?utm_source=chatgpt.com.

⁴⁸ Source cited above (https://tapchilaoviet.org/tin-ngay/san-la-mat-hang-nong-san-chu-luc-cua-lao-66295.html?utm_source=chatgpt.com).

⁴⁹ *Cassava Profits Conceal Alarming Environmental Threat in Laos*. *Laotian Times*. July 17, 2023 (Source: <https://laotiantimes.com/2023/07/17/cassava-profits-conceal-alarming-environmental-threat-in-laos/>)

⁵⁰ 'Cassava Farmers Encroach Upon Dong Hua Sao National Park.' *Laotian Times*, May 4, 2022 (Source: <https://laotiantimes.com/2022/05/04/cassava-farmers-invade-dong-hua-sao-national-park/>)

posing significant challenges for conservation and sustainable agriculture. The *Laotian Times* further reported that the negative impacts peaked in early 2023, when widespread slash-and-burn clearing for cassava plantations produced huge clouds of toxic smoke over several Lao provinces, harming public health and tourism. While conversion from other crops and expansion into forest may provide short-term food-security and income benefits, these gains have been described as carrying substantial environmental costs and threatening long-term ecological stability.⁵¹ Officials from the provincial agriculture and environment departments of Xayaboury and Savannakhet confirmed that large cassava areas in these provinces had been converted from forest, including natural forest, complicating boundary demarcation and issuance of forest-land ownership certificates.⁵²

Forest Trends' August 2024 survey in Attapeu found many newly established cassava fields. Much of this land had been cultivated years earlier and then left fallow; as cassava demand rose, households cleared it again for cassava. Some plots had previously grown maize or rice, while others were reportedly newly expanded into adjacent forest. Field observation found cassava plots that appeared to have been established on recently burned forest land, with large charred trees still standing. The research team also documented a case in which a foreign investor leased more than 100 ha of forested land in Attapeu in 2023 and clear-cut more than 80 ha for cassava; provincial authorities detected the case and detained the investor for investigation.

Recent forest encroachment was also acknowledged by Attapeu provincial leaders. *Tap chi Viet-Lao* reported that the province had implemented measures to address land and forest encroachment and that forest conditions had begun to stabilize, with recovery expected within three to four years.⁵³



Cassava fields planted close to and within forest in Attapeu, Lao PDR (photo taken August 2024)
photo taken August 2024)



A large area next to forest newly cleared in preparation for cassava planting in Attapeu, Lao PDR

⁵¹ *Cassava Profits Conceal Alarming Environmental Threat in Laos*. *Laotian Times*. July 17, 2023 (Source: <https://laotiantimes.com/2023/07/17/cassava-profits-conceal-alarming-environmental-threat-in-laos/>)

⁵² Direct consultations, August–September 2025.

⁵³ See details at: https://tapchilaoviet.org/tin-ngay/kinh-te-attapeu-tiep-tuc-tang-truong-o-muc-523-trong-6-thang-dau-nam-68981.html#google_vignette



Cassava field at the forest edge, with burned forest trees remaining in Attapeu, Lao PDR (photo taken August 2024)



Cassava planted close to and within forest in Attapeu, Lao PDR (photo taken August 2024)

In Cambodia

Cambodia is one of the world's leading cassava-producing countries. Its cassava area has expanded substantially in recent years, making cassava the country's second-largest crop by area after rice.⁵⁴ Cassava area increased from about 400,000 ha in 2011 to 670,570 ha in 2021,⁵⁵ and around 700,000 ha in 2024.^{56,57} A Forest Trends report⁵⁸ identified cassava expansion as one driver of deforestation in Cambodia, particularly in protected areas. From 2001 to 2020, Cambodia lost nearly 2.5 million ha of tree cover, a 28% decline from 2000 levels. Nearly 150,000 ha of forest was lost in 2020 alone, 43% of which was natural forest. Agricultural expansion, including cassava, was identified as a major cause of forest loss, especially in Preah Vihear, Ratanakiri and other northeastern provinces.⁵⁹

Some residents of Monduliri interviewed in August 2024⁶⁰ said households and enterprises had expanded cassava substantially over the previous two years. Several Vietnamese enterprises were reportedly seeking to lease land for cassava (and fruit crops such as durian) in areas 50-70 km from the border with Vietnam's Dak Lak and Dak Nong provinces. According to a Vietnamese trader who had lived locally for many years, current cassava area includes both household land (the majority) and enterprise land. Household cassava land includes agricultural plots previously planted with maize and agricultural land left fallow for several years, similar to the situation in Lao PDR.

⁵⁴ <https://www.forest-trends.org/wp-content/uploads/2022/01/Cambodia-Timber-Legality-Risk-Dashboard-IDAT-Risk.pdf> (retrieved Dec 21, 2024)

⁵⁵ MAFF data cited in Keo Sombath et al. (2024) (Source: <https://www.canr.msu.edu/prci/uploads/files/1%20Cambodia's%20Cassava%20in%20Regional%20Value%20Chain%20Approved%20Final.pdf>)

⁵⁶ <https://www.khmertimeskh.com/501579701/cambodia-exports-over-2-million-tonnes-of-fresh-cassava-in-q3/>

⁵⁷ Current cassava area in Cambodia is estimated at 600-800 thousand ha, according to The Better Cambodia (Source: <https://thebettercambodia.com/cambodias-cassava-industry-95-raw-exports-728-million-annual-contribution-and-a-path-to-value-added-growth/>)

⁵⁸ <https://www.forest-trends.org/wp-content/uploads/2022/01/Cambodia-Timber-Legality-Risk-Dashboard-IDAT-Risk.pdf> (retrieved Dec 21, 2024)

⁵⁹ <https://www.forest-trends.org/wp-content/uploads/2022/01/Cambodia-Timber-Legality-Risk-Dashboard-IDAT-Risk.pdf> (retrieved Dec 21, 2024)

⁶⁰ Field survey conducted by the research team in August 2024.

Regarding land origin, the trader said agricultural land in the area historically was mostly forest land cleared for cultivation 15-20 years ago. Without official land documents, it is now very difficult or impossible to determine whether cassava fields established in recent years in Mondulkiri were newly converted from forest. Land may have been forest 10-15 years ago, then converted to industrial or other agricultural crops before later being planted with cassava. In other words, it is difficult to identify which forest areas were newly cleared specifically for cassava.

Nevertheless, as in Lao PDR, field observations showed some newly planted cassava areas directly adjacent to or interspersed with forest, with partially burned large trees still standing in fields and neighboring forest edges being cleared in preparation for cassava. These areas may represent forest land currently being converted to cassava.



Cassava planted within forest in Mondulkiri, Cambodia (photo taken August 2024)



Cassava planted within forest in Mondulkiri, Cambodia (photo taken August 2024)



Cassava planted within forest in Mondulkiri, Cambodia (photo taken August 2024)



Cassava planted within forest in Mondulkiri, Cambodia (photo taken August 2024)

The qualitative evidence above indicates that recent cassava expansion carries a risk of forest loss. Quantifying the scale of this relationship will require more detailed research, including field surveys and quantitative data, potentially using spatial imagery such as remote sensing.

5.3. Current Capacity of Vietnam's Cassava Supply Chain to Meet Increasingly Stringent Legality and Anti-Deforestation Requirements

In recent years, many countries have introduced or strengthened regulations requiring traceability, legal production, and deforestation-free supply chains for selected agricultural and forest commodities. These measures aim to strengthen legal compliance, particularly in land use, and prevent forest loss and degradation, major drivers of climate change and biodiversity loss. One of the most prominent is the European Union Deforestation Regulation (EUDR), adopted in June 2023 and, as stated in this report, applied from December 30, 2025. EUDR covers seven commodity groups - coffee, cocoa, rubber, soy, palm oil, timber, and cattle - and requires them to be deforestation-free, legal, and traceable through the supply chain to individual production plots before being placed on the EU market.

In addition to the EU's EUDR, several major markets for Vietnamese agricultural and forest products have introduced or are developing similar measures requiring legal, deforestation-free and traceable production. Examples include:

- **United States:** The proposed FOREST Act,⁶¹ first introduced in 2021, aims to prohibit imports of agricultural and forest products linked to illegal deforestation. Commodities expected to be covered include soy, beef, palm oil, cocoa, rubber, and pulp.⁶² The bill remains under discussion and advocacy in Congress.

- **United Kingdom:** The Environment Act 2021 prohibits imports of agricultural commodities produced on land illegally deforested under the laws of the producer country. Companies must demonstrate that products placed on the UK market are not associated with unlawful land conversion. Detailed secondary regulations (Schedule 17/Forest Risk Commodity regulation) are still pending. There has also been discussion of expanding the scope beyond products associated with illegal deforestation to include products linked to legal forest conversion.⁶³

- **China:** Regulators and major importers are imposing increasingly stringent quality and traceability requirements on suppliers of imported agricultural and forest products, including fruit and rubber. Large companies such as COFCO and Sinochem have also made voluntary commitments to eliminate products causing or at risk of causing deforestation from soy, palm oil and other supply chains through initiatives such as the China Soybean Action Plan.⁶⁴

⁶¹ Fostering Overseas Rule of Law and Environmentally Sound Trade.

⁶² <https://www.congress.gov/bills/117/congress/senate/bills/2950>.

⁶³ See details at:

<https://www.loc.gov/item/global-legal-monitor/2024-02-15/united-kingdom-government-takes-measures-to-prevent-deforestation-of-worlds-forests>; <https://www.earth-sight.org.uk/news/earth-day-2025>; <https://questions-statements.parliament.uk/written-statements/detail/2023-12-12/hlws113>.

⁶⁴ See details at: <https://www.cofcointernational.com/media/uqgabdyu/sustainable-soy-sourcing-policy.pdf>; <https://www.cofcointernational.com/newsroom/cofco-international-to-supply-deforestation-free-soybeans-from-brazil-to-sheng-mu-in-china>.

- Japan, the Republic of Korea and Australia⁶⁵ are also tightening regulations governing production and trade in forest-derived products, particularly timber.

Cassava is not currently included among the commodities covered by any of the specific existing or proposed anti-deforestation, legality or supply-chain transparency regulations described above. It could nevertheless become subject to such controls in the future if production and processing are found to cause significant forest loss or degradation.

Field surveys and other information sources identify several major weaknesses in Vietnam's cassava supply chain in relation to traceability, anti-deforestation requirements and legal production:

Domestic cassava raw materials are supplied almost entirely by smallholders operating fragmented plots (on average below 0.5 ha per household; about 1.2 million households cultivate roughly 500 thousand ha). Most cassava area is in mountainous and midland provinces where fields are predominantly on sloping hillsides,⁶⁶ dispersed and difficult to organize at scale, mechanize, or manage for erosion control. Encroachment and forest clearing - including protection natural forest - for agricultural crops including cassava continue to be recorded in some localities, especially where agricultural land borders forest.

Cassava is also a short-cycle crop, typically harvested after about 8-12 months.⁶⁷ The area and location of each household's cassava plots can therefore change annually or after each production cycle at the household's discretion, without any obligation to report changes. This makes it very difficult to verify legal land-use rights and trace production back to specific plots and harvest dates.

Linkages among supply-chain actors remain weak. Most households sell to traders under verbal agreements without clear legal contracts. Transactions among farmers, traders and processors are generally loose and lack long-term commitments. Some offtake-linkage models between households, household groups, cooperative groups/cooperatives and processors have been established with government support, but participation remains limited.⁶⁸ These linkages mainly involve processors providing planting material and fertilizer, while purchase prices are still negotiated between households and enterprises.

Traders are a critical link between domestic farmers and processors, but their activities are relatively informal and poorly managed. There is no official information on how this group operates. Processors purchasing through traders generally lack information about and control over upstream activities. Transactions

⁶⁵ https://www.apf.gov.au/Parliamentary_Business/Bills_Legislation/bd/bd2324a/24bd062; <https://woodcentral.com.au/australia-cracks-down-on-illegal-timber-what-you-need-to-know>.

⁶⁶ In 2023, the 30 provinces in the Northern Midlands and Mountains, North Central and Central Coastal regions, and Central Highlands - where land is predominantly sloping - accounted for 407 thousand ha of cassava out of 504 thousand ha nationwide (CTK data).

⁶⁷ In some localities, households may use longer production cycles of 18 or even 24 months under extensive cultivation on sloping land.

⁶⁸ Total area participating in linkage models where enterprises advance planting material/fertilizer and purchase output from households or household groups is estimated at under 100 thousand ha, compared with more than 500 thousand ha cultivated by households nationwide.

among these actors generally lack transparency and are not traceable by shipment, specific production area, or harvest time.

Vietnam's cassava exports are excessively dependent on the Chinese market. More than 90% of the cassava starch and dried cassava chips produced each year are exported to China. Dependence on a single market represents a major risk to the sector's sustainable development.

Cross-border cassava trade and investment and implications for traceability

Imported raw materials - 42% of total sector supply - come mainly from Cambodia and Lao PDR and also carry significant risks. Although formal cross-border transactions are reported to have complete trade documentation, there is currently no mechanism to verify the legality or precise production areas of imported cassava shipments. Field surveys in Monduliri (Cambodia) and Attapeu (Lao PDR) found cassava expansion near and within areas of high forest cover, creating risks of deforestation or forest degradation from uncontrolled land conversion.

Traceability of agricultural and forest commodities is becoming mandatory in a growing number of countries, including Vietnam. At the Prime Minister's dialogue with farmers on December 10, 2025, the Minister of Agriculture and Environment stated a target that by the end of 2026 all agricultural, forestry and fishery products produced in or exported from Vietnam should carry traceability information.⁶⁹ Given the current cassava supply chain, including imported supply, tracing cassava produced in Vietnam and especially imports from Cambodia and Lao PDR will be extremely challenging. Effective traceability requires clear information on where cassava was produced, by whom, and the legal status of the land; such databases are largely absent.

Under current conditions, traceability of imported cassava is not realistically feasible. Most traders and importing enterprises do not know where cassava was grown or who grew it. An enterprise could ask its suppliers (traders or collection agents) to provide traceability information, but the likelihood of obtaining a complete dataset is very low. Vietnam's coffee and rubber sectors already face similar challenges because some smallholders do not cooperate and data collection is costly in both human and financial resources. Imported cassava is even more difficult to trace because the supply chain is cross-border and complex, cassava has much lower commercial value than coffee or rubber, and cassava growers generally have lower technical and financial capacity than coffee and rubber growers.

⁶⁹ <https://vicofa.org.vn/bo-truong-tran-duc-thang-cuoi-nam-2026-co-ban-tat-ca-cac-san-pham-nong-lam-thuy-san-deu-phai-co-truy-xuat-nguon-goc-bid3271.html>

6. Discussion and Recommendations

Cassava is an important crop in Vietnam, generating substantial export value and providing livelihoods for millions of farming households. It is particularly suited to the capacities and economic conditions of mountainous ethnic minority households because it is easy to grow, tolerates a wide range of soils, requires relatively little capital, and can be cultivated across diverse ecological zones.

However, as global markets impose increasingly stringent supply-chain requirements to protect forests and address climate change, Vietnam's cassava supply chain faces major challenges in demonstrating legality, avoiding deforestation, and ensuring transparency and traceability throughout the chain. Cassava area expansion in some localities raises concerns over deforestation risk, although complete data are not available to quantify forest clearing or conversion. In addition, a substantial share of Vietnam's cassava raw material supply is imported from Cambodia and Lao PDR, where cassava area has expanded rapidly but land-use control and transparency remain limited. These issues create risks not only for domestic processors, but also for Vietnam's forest-protection goals, environmental and emissions commitments, and international market integration.

The domestic cassava chain relies heavily on informal transactions between farmers and local traders. Purchases are often made without legal contracts or records of land origin and harvest timing, making it difficult to verify raw-material legality. The lack of an effective traceability system also makes it difficult for processors and exporters to meet increasingly stringent market requirements.

Policies such as the Scheme for Sustainable Development of the Cassava Sector to 2030, Decree 98 on production linkages, and Decree 57 on agricultural investment have provided useful direction. However, implementation remains limited. Enterprise-farmer linkage models and sustainable-standard production models are still mostly pilots or demonstrations and have not been scaled or coordinated across production regions.

To ensure sustainable cassava development, prevent forest loss and degradation, protect the livelihoods of millions of farmers, and maintain access to key export markets, the following measures are needed:

Vietnam should promptly establish a cassava raw-material traceability system covering the entire supply chain from households to processing plants. It should be simple enough for farmers and traders to use while enabling data storage, verification, and connection with regulators and exporters. The Ministry of Agriculture and Environment, led by the Department of Crop Production and Plant Protection in coordination with provincial departments, should provide implementation guidance. Processing enterprises should play a leading role in training and monitoring implementation in sourcing areas. The system should apply to all cassava-growing households, traders, cooperatives and processors, and factories should establish clear and transparent linkages with their sourcing areas.

The Ministry of Agriculture and Environment should work with major cassava-producing provinces to review and clearly identify areas where agricultural production, including cassava, is permitted and prioritized. The Department of Forestry and Forest Protection should direct provincial forestry and forest-protection agencies to strengthen field inspections and strictly address

illegal forest encroachment and conversion. Provincial People's Committees should take primary responsibility, in coordination with provincial Departments of Agriculture and Environment and the local forest-protection system.

Local authorities should strengthen oversight of local traders so that trader networks operate legally and transparently.

To improve control of imported supply, the Ministry of Industry and Trade should coordinate with the Ministry of Foreign Affairs and Vietnam Customs to establish bilateral cooperation mechanisms with Cambodia and Lao PDR for monitoring and verifying the origin of cassava exported to Vietnam. Vietnamese importers should require exporters in the two countries to provide land-use-right certificates and sourcing-area documentation to relevant supply-chain actors. Vietnam Customs should also establish risk-based checks for cassava imports, particularly from areas at high risk of deforestation, using information shared by partner agencies in Cambodia and Lao PDR. Verification of legal documents and certificates of origin should be strengthened, with priority treatment for transparent and reliable enterprises.

Cassava processors should proactively invest in clearly traceable sourcing areas through offtake contracts with cooperative groups, cooperatives, or farmer groups holding legal land-use documentation. The Ministry of Agriculture and Environment should provide technical assistance, credit incentives, and guidance on sustainable production criteria such as VietGAP and deforestation-free standards. Enterprises should establish internal control systems to ensure inputs do not carry land-origin risks or unclear supply/supplier information, and should improve transparency throughout purchasing and processing. This will help companies meet market requirements while protecting the long-term reputation of the sector.

The role of civil-society organizations, commodity associations such as the Vietnam Cassava Association, international organizations, and NGOs should be strengthened to build awareness and capacity among farmers, local authorities, and enterprises regarding legal and technical requirements for traceability, sustainable cultivation, and social responsibility. Field training programs, simple guidance manuals, and pilot transparent supply-chain models should be developed in major cassava-producing provinces. These organizations can also serve as bridges for policy communication, technical tools, and independent monitoring.

A high share of low-value-added exports such as dried chips and fresh cassava, together with excessive dependence on China, are significant risks to sustainable sector development. The Government has identified directions to address these issues, including investment and technological upgrading to increase the share of higher-value products and diversification of markets. These actions should be accelerated and implemented as soon as possible.

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Appendices

Appendix 1. Vietnam's imports of cassava raw materials by product, 2018 - first 9 months of 2025 (tonnes)

HS code	Product	2018	2019	2020	2021	2022	2023	2024	First 9 months of 2025
07141011	Dried cassava chips	494.385	397.159	393.646	1.104.238	1.624.573	1.073.448	715.294	1.449.089
07141019	Dried cassava chips - Other	500							
07141099	Fresh cassava	1.266.588	877.519	728.418	2.103.220	5.704.638	4.206.945	5.338.184	4.238.064
11062010	Cassava flour	1		0		5			54
11081400	Cassava starch	44.422	70.614	72.944	117.377	65.796	79.525	141.646	150.004
	Total	1.805.896	1.345.292	1.195.008	3.324.835	7.395.007	5.359.924	6.195.124	5.837.210
	Total fresh equivalent	2.681.491	2.152.874	2.004.307	5.333.322	10.029.256	7.208.679	7.693.003	8.460.937

Source: Vietnam Customs data, compiled by the Forest Trends research team.

Appendix 2. Vietnam's import value of cassava raw materials by product, 2018 - first 9 months of 2025 (USD)

HS code	Product	2018	2019	2020	2021	2022	2023	2024	First 9 months of 2025
07141011	Dried cassava chips	98.486.150	89.790.200	84.850.360	272.231.487	430.860.954	284.432.534	173.837.555	264.274.932
07141019	Dried cassava chips - Other	87.500							
07141099	Fresh cassava	138.422.353	103.796.535	77.886.317	264.780.870	739.820.196	525.714.741	622.258.063	353.152.232
11062010	Cassava flour	800		525		17.715			6.750
11081400	Cassava starch	16.925.741	26.214.656	25.779.252	51.277.463	28.735.441	34.719.761	64.292.182	45.014.527
	Total	253.922.544	219.801.917	188.515.929	588.289.820	1.199.416.590	844.884.752	860.387.800	662.448.442

Source: Vietnam Customs data, compiled by the Forest Trends research team.

Appendix 3. Vietnam's imports of cassava raw materials by market, 2018 - first 9 months of 2025 (tonnes)

Market	2018	2019	2020	2021	2022	2023	2024	First 9 months of 2025
Cambodia	1.616.712	1.122.049	1.008.329	2.900.614	7.004.654	4.974.277	5.719.931	5.204.092
Cameroon					500			
China	0	1			547	364	132	
Germany					0			
India					1			
Indonesia			6.000	25.311	0			
Italy					0			
Japan	1		0		1	0	1	
Laos	176.114	202.336	179.265	381.319	380.798	380.394	473.538	632.466
Malaysia					2			
Taiwan (China)	64	17	17	9	15	2	2	
Thailand	13.005	20.887	1.396	17.582	8.492	4.887	1.522	653
United States					0			
Total	1.805.896	1.345.292	1.195.008	3.324.835	7.395.007	5.359.924	6.195.124	5.837.210

Source: Vietnam Customs data, compiled by the Forest Trends research team.

Appendix 4. Vietnam's import value of cassava raw materials by market, 2018 - first 9 months of 2025 (USD)

Market	2018	2019	2020	2021	2022	2023	2024	First 9 months of 2025
Cambodia	218.556.541	172.013.585	141.724.290	478.725.120	1.101.372.797	745.935.073	741.792.259	540.744.105
Cameroon					124.000			
China	742	1.365			126.040	119.201	67.139	
Germany					334			
India					1.836			
Indonesia			2.220.056	11.834.212	205			
Italy					145			
Japan	1.274	585		1.456	424		1.147	
Laos	29.326.666	38.201.017	43.788.301	88.315.459	93.129.351	96.063.716	117.514.693	121.291.150
Malaysia					1.218			
Taiwan (China)	26.750	12.969	22.112	11.440	14.640	1.440	1.120	
Thailand	6.010.570	9.571.178	759.714	9.403.164	4.643.890	2.765.322	1.012.446	413.187
United States					2.352			
Total	253.922.544	219.801.917	188.515.929	588.289.820	1.199.416.590	844.884.752	860.387.800	662.448.442

Appendix 5. Vietnam's exports of cassava raw materials by product, 2018 - first 9 months of 2025 (tonnes)

HS code	Product	2018	2019	2020	2021	2022	2023	2024	First 9 months of 2025
07141011	Dried cassava chips	641.355	292.365	594.219	829.308	757.555	819.350	464.771	935.872
07141019	Dried cassava chips - Other	343	1.218	65	131	31	25	45	42
07141091	Frozen cassava	1.214	1.960	2.843	1.959	2.230	1.885	2.576	2.187
07141099	Fresh cassava	56.356	104.126	53.394	8.671	71	89	235	258
11062010	Cassava flour	17.552	20.101	1.546	3.601	7.047	1.117	1.988	3.386
11081400	Cassava starch	1.708.884	2.148.761	2.159.711	2.014.473	2.476.382	2.133.222	2.154.205	2.145.724
	Total	2.425.704	2.568.532	2.811.777	2.858.144	3.243.316	2.955.688	2.623.819	3.087.471
	Total fresh equivalent	8.567.558	9.515.494	10.186.974	10.156.527	11.829.983	10.587.768	9.789.622	10.938.674

Source: Vietnam Customs data, compiled by the Forest Trends research team.

Appendix 6. Vietnam's export value of cassava raw materials by product, 2018 - first 9 months of 2025 (USD)

HS code	Product	2018	2019	2020	2021	2022	2023	2024	First 9 months of 2025
07141011	Dried cassava chips	145.060.172	68.643.758	134.572.488	216.011.653	217.764.465	227.885.363	115.688.768	188.290.336
07141019	Dried cassava chips - Other	122.819	534.688	82.983	73.849	33.749	23.606	45.347	47.655
07141091	Frozen cassava	1.171.237	2.094.564	2.854.434	2.129.842	2.723.425	2.276.547	2.958.382	2.409.739
07141099	Fresh cassava	3.883.347	7.873.909	3.970.565	708.762	28.517	40.562	111.965	102.421
11062010	Cassava flour	5.038.830	6.653.352	470.573	1.252.323	2.778.830	440.168	505.848	855.774
11081400	Cassava starch	802.751.483	891.359.689	870.733.899	951.897.452	1.179.422.711	1.073.160.773	1.035.806.195	756.488.304
	Total	958.027.887	977.159.959	1.012.684.942	1.172.073.881	1.402.751.698	1.303.827.018	1.155.116.506	948.194.230

Source: Vietnam Customs data, compiled by the Forest Trends research team.

Appendix 7. Vietnam's exports of cassava raw materials by market, 2018 - first 9 months of 2025 (tonnes)

Market	2018	2019	2020	2021	2022	2023	2024	First 9 months of 2025
China	2.148.775	2.261.778	2.590.108	2.674.124	2.973.115	2.705.672	2.436.651	2.923.641
South Korea	89.132	99.074	97.873	99.673	150.404	108.662	38.194	18.065
Taiwan (China)	27.343	32.738	39.639	29.986	39.998	50.838	49.106	42.246
Malaysia	32.056	67.097	26.663	3.166	9.389	13.942	15.902	21.222
Philippines	27.719	27.123	12.738	6.933	29.501	18.811	16.339	20.885
Other	100.680	80.721	44.756	44.262	40.910	57.765	67.629	61.411
Total	2.425.704	2.568.532	2.811.777	2.858.144	3.243.316	2.955.688	2.623.819	3.087.471

Source: Vietnam Customs data, compiled by the Forest Trends research team.

Appendix 8. Vietnam's export value of cassava raw materials by market, 2018 - first 9 months of 2025 (USD)

Market	2018	2019	2020	2021	2022	2023	2024	First 9 months of 2025
China	844.164.710	862.917.939	930.059.948	1.094.882.675	1.283.147.261	1.186.847.267	1.060.579.794	881.901.088
South Korea	26.282.850	29.324.689	28.182.747	33.025.230	53.675.403	40.019.639	12.469.031	4.897.191
Taiwan (China)	13.499.222	14.344.427	16.430.535	14.775.796	20.014.291	26.467.564	25.740.891	15.711.631
Malaysia	15.532.672	24.452.058	11.164.440	1.562.796	4.580.292	7.259.116	8.168.767	8.113.215
Philippines	12.963.139	11.345.250	5.088.015	3.212.575	14.833.898	9.191.975	8.132.018	7.183.497
Other	45.585.294	34.775.597	21.759.257	24.614.808	26.500.552	34.041.458	40.026.005	30.387.608
Total	958.027.887	977.159.959	1.012.684.942	1.172.073.881	1.402.751.698	1.303.827.018	1.155.116.506	948.194.230

Source: Vietnam Customs data, compiled by the Forest Trends research team.

Appendix 9. Vietnam's cassava raw-material exports to China by product, 2018 - first 9 months of 2025 (tonnes)

HS code	Product	2018	2019	2020	2021	2022	2023	2024	First 9 months of 2025
7141011	Dried cassava chips	553.346	206.416	497.759	734.480	616.855	715.198	424.062	915.744
7141099	Fresh cassava	56.073	104.097	53.146	8.660	53	60		
11062010	Cassava flour	31			26	176	46	28	
11081400	Cassava starch	1.539.324	1.951.265	2.039.204	1.930.983	2.356.181	1.990.238	2.012.544	2.007.869
	Total	2.148.775	2.261.778	2.590.108	2.674.124	2.973.115	2.705.672	2.436.651	2.923.641
	Total fresh equivalent	7.596.860	8.425.196	9.454.358	9.568.794	10.967.017	9.749.711	9.110.511	10.320.948

Source: Vietnam Customs data, compiled by the Forest Trends research team.

Appendix 10. Vietnam's cassava raw-material export value to China by product, 2018 - first 9 months of 2025 (USD)

HS code	Product	2018	2019	2020	2021	2022	2023	2024	First 9 months of 2025
7141011	Dried cassava chips	121.100.645	45.384.888	107.373.315	185.161.415	168.561.517	190.554.782	103.378.876	183.328.060
7141099	Fresh cassava	3.786.431	7.710.996	3.653.845	691.359	9.839	21.709		
11062010	Cassava flour	7.981			6.468	54.105	16.387	6.804	
11081400	Cassava starch	719.269.653	809.822.054	819.032.789	909.029.900	1.114.569.438	996.216.671	957.184.531	698.566.224
	Total	844.164.710	862.917.939	930.059.948	1.094.882.675	1.283.147.261	1.186.847.267	1.060.579.794	881.901.088

Source: Vietnam Customs data, compiled by the Forest Trends research team.