# Report: Work document

Agricultural industry and mechanization in Vietnam

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# 0. Executive Summary

Vietnam, a country with a population of nearly 100 million, offers significant opportunities for businesses seeking to export or establish operations in the agricultural sector.

Vietnam's economy has displayed remarkable dynamism, with a strong 8.02 percent of GDP growth in 2022, positioning it as the third-largest economy in ASEAN and the 27th largest globally by 2028. With controlled inflation, low unemployment levels under 2% in 2022, and a decreasing public debt-to-GDP ratio, Vietnam has become an attractive destination for global business and economic development. Thanks to its young and dynamic workforce and a growing middle class projected to reach 50% of the population by 2035, Vietnam presents a promising consumer base and domestic demand in high quality products, first and foremost food, will continue growing substantially in the years to come.

The country's political landscape is characterized by a one-party centralized state, providing stability and consistency in economic policies. The government's long-term orientation has resulted in substantial improvements in the ease of doing business rankings, enabling foreign businesses to strategize and plan their market approach effectively.

On top of that, Vietnam's commitment to international trade has become increasingly evident in its free-market approach and active participation in close to 20 free trade agreements and economic partnerships. The EU-Vietnam Free Trade Agreement (EVFTA) has further opened up opportunities, allowing for free trade between the European Union and Vietnam and the elimination of tariffs for a wide range of products. Trade continues playing a crucial role in Vietnam's economy, with foreign-owned companies contributing significantly to its export sector, covering about three quarters of exportations.

Agriculture still represents a strong share of the GDP, a powerhouse for trade, and the Vietnamese government has placed this sector as a top priority, implementing various schemes and incentives to support farmers and agricultural businesses. These initiatives aim to improve productivity, streamline regulations, and promote sustainable agricultural practices. In particular, the Ministry of Agriculture and Rural Development (MARD) has outlined a comprehensive plan for the period 2021-2025, focusing on specific products, categories, and regions. This plan includes goals, incentives, lighter regulations, and public tenders to support agricultural development.

Those policies and orientations have put strong emphasis on climate change management. Vietnam is particularly exposed to climate change which poses crucial challenges to agriculture, particularly in regions like the Mekong Delta and the Red River Delta (which are central for Vietnam crops production), where saline intrusion, flooding, and sea-level rise affect rice cultivation. The government is determined to work with both local and international stakeholders to address these issues and seek innovative solutions.

While the share of agriculture in Vietnam's GDP has declined over the years, the sector remains vital for trade, for employment (around a third of employed population works in this sector), and to answer growing domestic demand. Furthermore, the value of agricultural exports has grown substantially, and there is considerable potential for business opportunities in mechanization, agro-infrastructures, and farm modernization if the country wants to remain competitive on the global scene. Vietnam's diverse agricultural landscape, with specialized regions for different crops, creates avenues for collaboration and specialization.

The structure of the farm ecosystem is predominantly comprised of household-owned farms, which account for more than 99% of total units. However, these farms are gradually evolving or disappearing due to regulatory changes or competitive pressures. Larger farming units are gaining traction, concentrated in the Mekong Delta for cultivation farms and the Red River Delta for livestock.

Rice remains the dominant agricultural product in Vietnam, followed by sugarcane, cassava, rubber, pepper, cashew, and fruits. Improved cultivation methods and equipment have led to increased production despite a decrease in cultivated areas, presenting opportunities for mechanization and farm modernization.

When it comes to livestock, Vietnam has seen mixed trends, with stagnant or declining populations of cattle and buffaloes, recovering pig populations after the Asian Swine Fever of 2019 (which had a tremendous impact), and robust growth in poultry which remains the most dynamic animal husbandry industry. Overall, livestock-related exports have seen relatively low growths, indicating potential for modernization and value chain integration.

The agricultural machinery market in Vietnam holds immense potential, yet it faces several dynamics. Currently, the availability of farm power in Vietnam lags behind the average equipment level found in other ASEAN countries. Local manufacturers have a relatively low market share, with domestic machinery manufacturing capacities only meeting 32% of market demand. As a result, a significant portion of the market demand, around 60-70%, is fulfilled through imported products.

Foreign players, particularly Asian suppliers from China, South Korea, and Japan, dominate the Vietnamese market. Tractors constitute the largest segment within the agricultural machinery sector. Western players, such as John Deere and CLAAS, have limited presence in the market. This can be attributed to various factors, including the perception of Western machinery being expensive and unsuitable for Vietnam's main crops, particularly paddy, as well as the challenges posed by the country's tropical weather conditions.

Foreign direct investment (FDI) enterprises heavily rely on a network of agents and distributors to navigate the Vietnamese market. These intermediaries play a crucial role in facilitating the distribution and accessibility of agricultural machinery.

In terms of global trade, Italy usually holds a notable position among the top 20 suppliers to Vietnam within the HS Codes considered in this hereby study. Often ranking as the

second or third EU partner country, Italy's presence highlights the potential for Italian businesses to leverage their expertise, strengthen their footprint further, and establish partnerships in the Vietnamese agricultural machinery market.

Given the high demand for agricultural machinery and the limited domestic manufacturing capacities, there is indeed still considerable room for modernization and mechanization solutions. Foreign businesses can capitalize on this opportunity by offering advanced technologies, tailor-made solutions, and efficient agricultural machinery to meet the growing demand and contribute to the development of the sector in Vietnam.

Smart farming in particular is emerging as a key strategy to enhance productivity, restructure the agriculture sector, and combat climate change in Vietnam. The adoption of high-tech solutions presents opportunities for Italian businesses to contribute to the development of smart farming practices, with solutions that can be both affordable and highly adapted to the local needs of farmers, whether they are large or smaller players.

While Vietnam's agricultural market holds undeniable opportunities, it is important to acknowledge the existing challenges. The industry exhibits a mix of highly consolidated and fragmented segments, with significant regional variations. Therefore, European businesses, including Italian enterprises, must approach the market with diligence, carefully assessing the most suitable products to promote, specific target regions, and potential partnerships.

The varying dynamics within the Vietnamese agricultural sector require a nuanced understanding of local preferences, market demands, and regional disparities. It is crucial for Italian businesses to conduct thorough market research and analysis to identify the most efficient and effective strategies for market entry and expansion.

Moreover, forming strong partnerships with local distributors, agents, or manufacturers can provide valuable insights, market access, and distribution channels. Collaborating with trusted partners who possess extensive knowledge of the Vietnamese market can significantly enhance the chances of success for European businesses.

Taking into account the diverse nature of the Vietnamese agricultural landscape, tailored approaches are necessary to navigate through the complexities and capture the opportunities available. By carefully assessing market conditions, understanding regional variations, and forging strategic partnerships, Italian businesses can maximize their potential in Vietnam's agricultural market.

# 1. Vietnam – a) General overview

Vietnam has made significant progress in recent years in terms of economic development and business environment. The country has transitioned from a centrally planned economy to a market-oriented one, and has become one of the fastest-growing economies in the world. Vietnam's economy is characterized by its strong manufacturing sector, which has been fueled by foreign investment and exports.

One of the key factors driving Vietnam's economic growth has been its openness to foreign investment. The Vietnamese government has implemented a number of policies aimed at attracting foreign investment, including tax incentives, streamlined bureaucratic procedures, and infrastructure development. As a result, many multinational corporations have set up operations in Vietnam, particularly in the manufacturing and electronics sectors.

Vietnam is also a member of several regional and international trade agreements, including the ASEAN Free Trade Area, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), and the Regional Comprehensive Economic Partnership (RCEP). These agreements have helped to open up new markets for Vietnamese businesses, and have facilitated the flow of goods, services, and capital across borders.

In terms of the business environment, Vietnam has made progress in recent years in terms of streamlining bureaucratic procedures and reducing red tape. However, corruption remains a significant challenge in the country, and can be a major impediment to doing business. The Vietnamese government has taken steps to address corruption, including the establishment of anti-corruption agencies and the prosecution of corrupt officials, but more work remains to be done.

Vietnam's labor force is young and growing, with a median age of just 30.6 years. The country has a large pool of low-cost labor, particularly in the manufacturing and agricultural sectors. However, there are concerns about the quality of the workforce, particularly in terms of education and training. Many employers report difficulty finding workers with the necessary skills and qualifications.

Another challenge facing businesses in Vietnam is the country's infrastructure. While Vietnam has made significant progress in recent years in terms of infrastructure development, there are still significant gaps, particularly in rural areas. This can make it difficult for businesses to transport goods and access markets.

Despite these challenges, Vietnam remains an attractive destination for businesses looking to expand in Southeast Asia. The country's strategic location, low labor costs, and growing consumer market make it an appealing option for companies in a wide range of industries. As Vietnam continues to develop and modernize, it is likely to become an increasingly important player, first and foremost in Asia-Pacific, but also in the global economy.

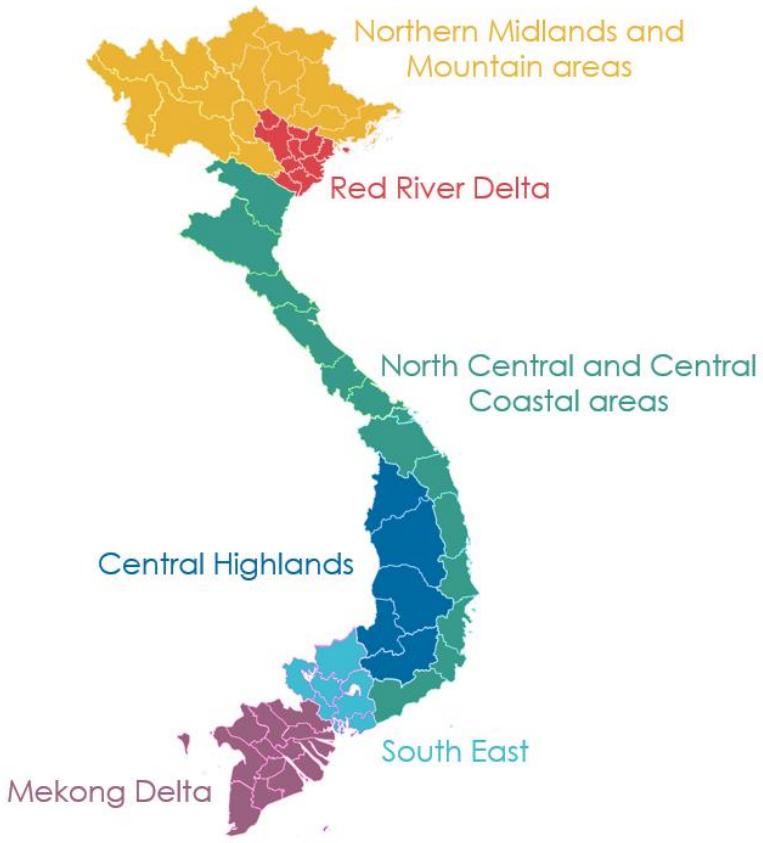
# 1. Vietnam – b) Geography and demographics

## i) Overall geography

Vietnam is a long, narrow country located on the eastern edge of the Indochinese Peninsula in Southeast Asia, bordered by China to the North, the South China Sea to the East and South, the Gulf of Siam in the Southwest, and Cambodia and Laos to the West. The country has a length of 1,650 km from North to South and has a total area of approximately 331,210 km², making it the world's 65th largest country by land area.

Overall, Vietnam's principal physiographic features are the Annamese Cordillera extending generally from northwest to southeast in central Vietnam and dominating the interior, and two extensive alluvial deltas formed by the Red (Hong) River in the north and the Mekong (Cuu Long) River in the south. Between these two deltas is a long, relatively narrow coastal plain.

*Map 1. Six main regions of Vietnam*




Vietnam is usually divided into 6 main regions: the Northern Midlands and Mountain Areas, the Red River Delta, the North Central and Central Coastal areas, the Central Highlands, the Southeast and the Mekong River Delta. Each region has its own unique geography, climate, culture and agricultural specificities.

**The Northern Midlands and mountains (or highlands) areas**, are located in the northwestern part of the country. This region is characterized by its mountainous terrain, including the Hoang Lien Son range, which includes Fansipan, the highest peak in Indochina at 3,143 meters.

**The Red River Delta** is located in the northern part of the country, and is named after the Red River, which flows through the region. The delta is characterized by its flat, fertile plains, which make it one of the most important agricultural regions in Vietnam. Roughly triangular in shape, with its northeast and southwest sides bounded by the northern

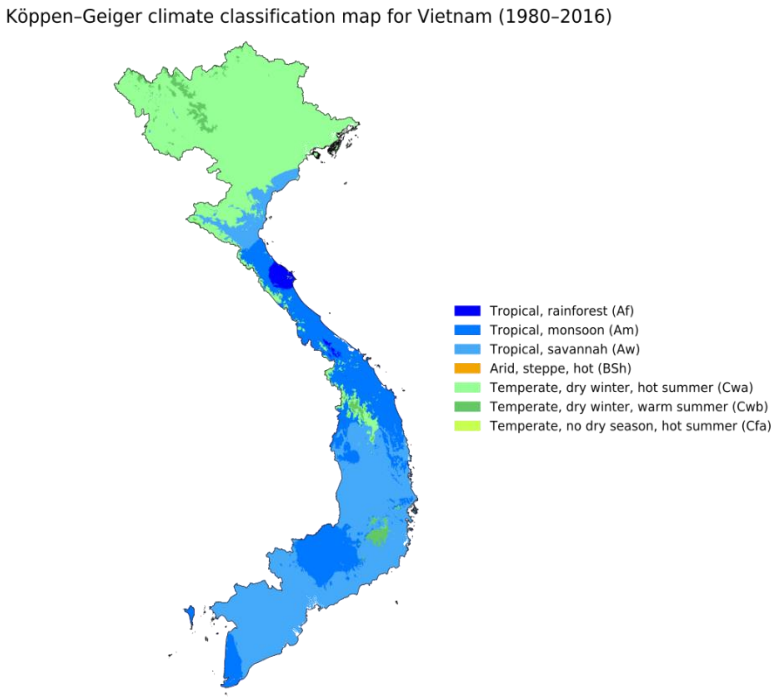
uplands, the Red River delta extends inland some 240 km and runs some 120 km along the Gulf of Tonkin. The delta can be divided into four subregions. The northwestern section has the highest and most broken terrain, and its extensive natural levees invite settlement despite frequent flooding. The low-lying eastern portion is less than seven two meters above sea level in the vicinity of Bac Ninh. Rivers there form small valleys only slightly lower than the general surface level, and they are subject to flooding by the area's unusually high tides. The third and fourth subregions consist, respectively, of the poorly drained lowlands in the west and the coastal area, which is marked by the remains of former beach ridges left as the delta expanded. The region is also home to the capital city of Hanoi, as well as many other important cities and towns.

**The North Central and Central coastal areas** are located along the eastern coast of the country, and include many important cities and towns, such as Da Nang.

**The Central Highlands** are located in the central part of the country, and are characterized by their rugged, mountainous terrain. This region is well known for its coffee plantations, producing some of the best coffee in the world.

**The South East region** mainly consists of Ho Chi Minh City (Saigon) and its immediate surroundings. This region is the most economically developed region in Vietnam and also the most highly urbanized in the country with more than 50% people living in urban areas (while the equivalent figure for Vietnam is just 25%)

Finally, **the Mekong Delta** is located in the southern part of the country, and is named after the Mekong River, which flows through the region. The delta is characterized by its flat, fertile plains, making it, like the Red River Delta, the other most important agricultural region in Vietnam.




*Map 2. Köppen-Geiger Climate classification map of Vietnam (1980 - 2016)*

Further reinforcing those regional differences, the Vietnamese climate also varies widely from North to South. The northern part of Vietnam is on the edge of the tropical climatic zone. During January, the coldest month of the year, Hanoi has a mean temperature of 17 °C, while the annual average temperature is 23 °C.

Farther south, the average annual temperature in Hue is 25 °C and in Ho Chi Minh City is

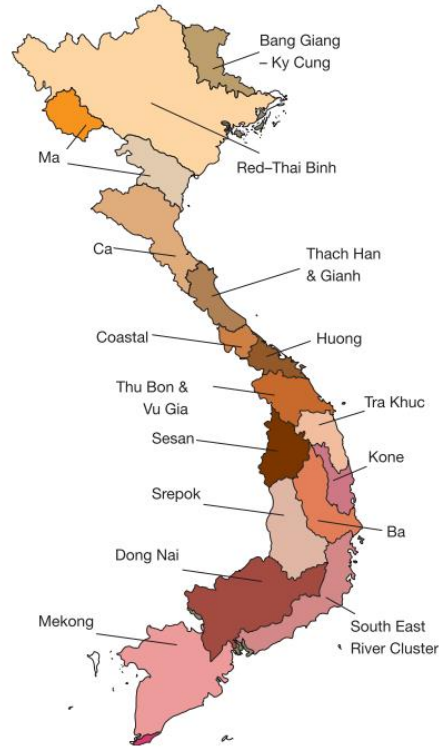
27 °C; in the highland city of Da Lat, it drops to 21 °C. The winter season in northern Vietnam lasts from November to April; from early February to the end of March there is a persistent drizzle, and March and April are sometimes considered to be a transitional period. The summer in northern Vietnam lasts from April or May to October and is characterized by heat, heavy rainfall, and occasional typhoons.

In central and southern Vietnam, the southwest monsoon winds between June and November bring rains and typhoons to the eastern slopes of the mountains and the lowland plains. The period between December and April is drier and is characterized by the winds of the northeast monsoon and, in the south, by high temperatures.

Overall, Vietnam's diverse geography implies a regional diversification of cultivated crops and breed livestock, and various challenges to be faced. Thus, the needs in agricultural machinery, equipment, systems or substances can vary widely depending on the localization, oil quality, and last but not least, climate.

## ii) Water supply in Vietnam

*Map 3. Main river basin of Vietnam*




Source: 2030 WRG 2017.

Vietnam has 16 major river basins and nearly 3,500 rivers in a dense and complex river network (see map 3.). The Mekong, Red-Thai Binh, and Dong Nai rivers account for 80 percent of the country's water resources.

Vietnam's water resources are not entirely under its direct control. Most of the water supplies come from upstream neighbors (see table below ). As an illustration, only 8% of Vietnam's catchment area is covered by the Mekong River, the most significant river that supplies water to the Mekong Delta, the country's largest paddy region (equivalent to 55 billion cubic meters).

The country's water resources are not evenly divided. Most of the water volume is concentrated in the North and the South, whereas this is limited in the Center.

*Table 1. Water resources in major river*

| River basin | Catchment area | | Total volume (billion cubic meters) | | |
|---|---|---|---|---|---|
| | Total area (km²) | Percent in Vietnam | Total | Total generated in Vietnam | Percent generated in Vietnam |
| Mekong | 795,000 | 8 | 508 | 55.0 | 11 |
| Red-Thai Binh | 155,000 | 55 | 137 | 80.3 | 59 |
| Dong Nai | 44,100 | 85 | 36.6 | 32.6 | 89 |
| Ma | 28,400 | 62 | 20.2 | 16.5 | 82 |
| Ca | 27,200 | 65 | 27.5 | 24.5 | 89 |
| Ba | 13,900 | 100 | 13.8 | 13.8 | 100 |
| Bang Giang – Ky Cung | 11,220 | 94 | 8.9 | 7.3 | 82 |
| Thu Bon and Vu Gia | 10,350 | 100 | 17.9 | 17.9 | 100 |

*Source: WEPA 2018*

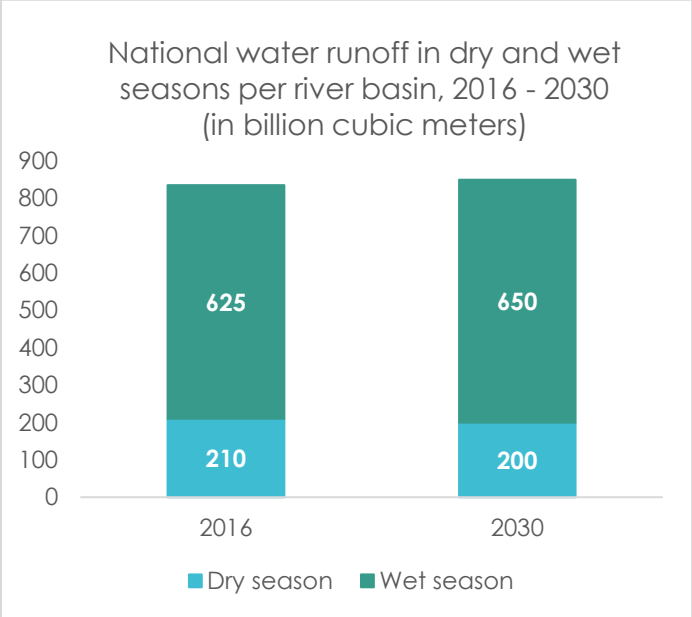
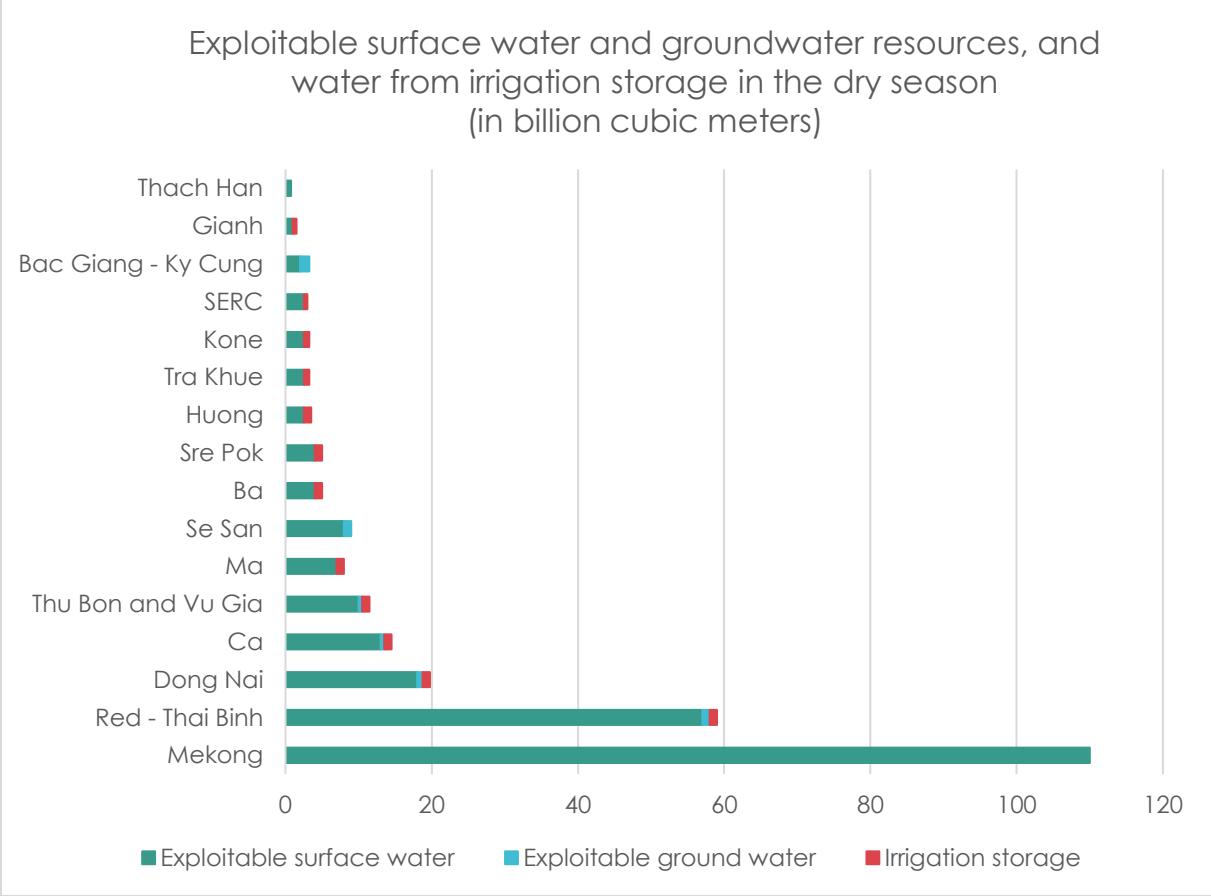



*Figure 1. National water runoff in dry and wet seasons per river basin, 2016 – 2030 (in billion cubic meters)*

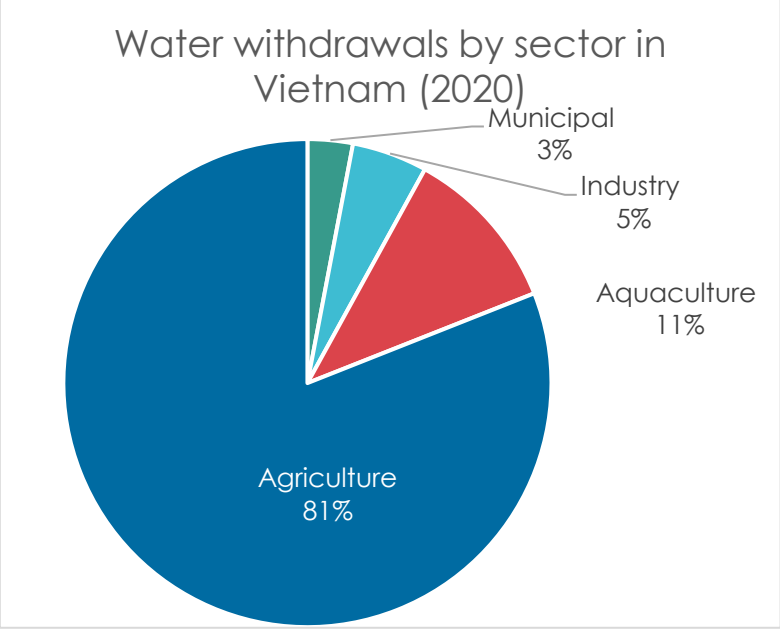
*Figure 2. Exploitable surface water and ground water resources, and water from irrigation storage in the dry season (in billion cubic meters)*



As shown here, the Mekong River is by far the largest source of exploitable surface water and groundwater resources and water from irrigation storage, followed by Red-Thai Binh and Dong Nai River. Exploitable surface water is the dominant resource, meanwhile, the volume of groundwater resources and water from irrigation storage are limited.

During the rainy season, with rivers flooding, the national water runoff is 3 times higher than in the dry season (in 2016: 625 billion cubic meters in comparison with 200 in the dry season). According to forecasts, this number remains the same, even in 2030.

*Figure 3. Water withdrawals by sector in Vietnam (2020)*




Despite industrialization and city expansion, agriculture remain by far the most water-consuming sector, accounting for 81 % of the total. Water resource is limited, and in the context of climate change and saline intrusion, this situation will further worsen over the coming decades. This pressure, according to the World Bank, will make the agricultural sector of Vietnam less competitive in comparison with other countries in ASEAN.

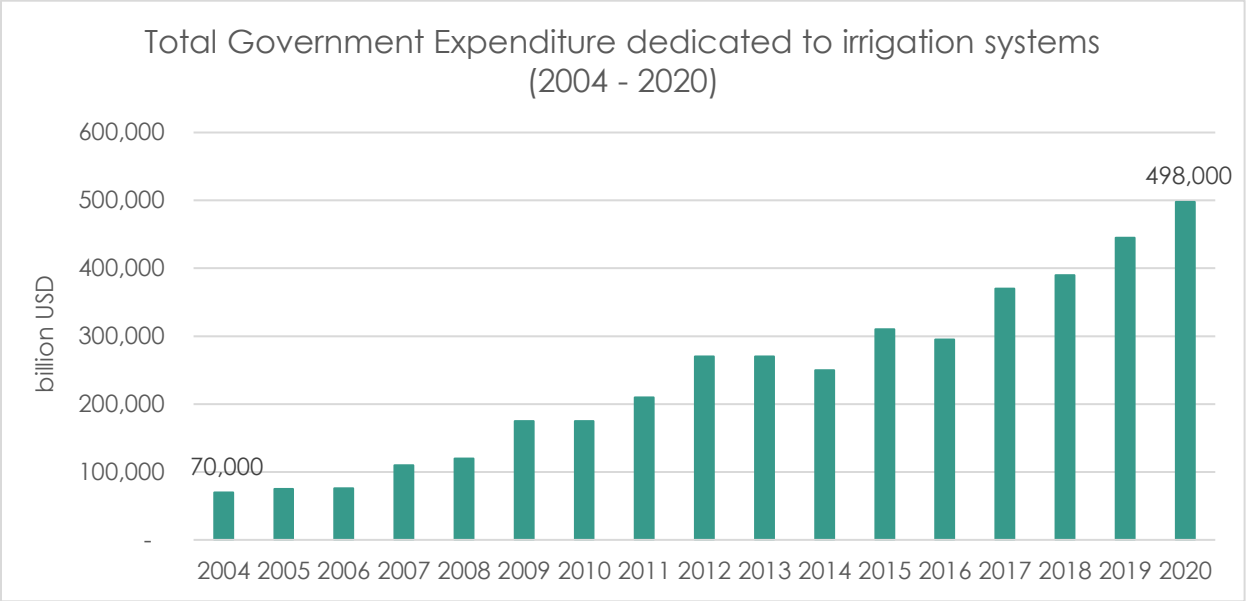
*Source: World Bank*

### iii) Irrigation system

With a total cultivated area of 9.6 million ha, about 4.6 million ha (48%) is irrigated and about 2.5 million ha (26%) has drainage.

Investment in irrigation and flood protection has been a major focus of the government since the 1970s, with some 80% of the capital investment funds available to the agriculture sector allocated to improving and expanding irrigation, and protecting flood prone areas from damage.

*Figure 4. Total Government Expenditure dedicated to irrigation system (2004 - 2020)*




*Source: Ministry of Finance, Vietnam*

The government has prioritized investing in developing and enhancing irrigation systems and preventing damage to flood-prone areas. Overall, the total expenditure of central and local governments has increased 5 times from 2004 to 2020, going from about 70 trillion VND ($ 3 billion USD) in 2004 to 498 trillion VND ($ 21 billion) in 2020.

There are 1,014 separate irrigation schemes throughout the country, of which the vast majority (904) service less than 2,000 ha.

According to estimates, small irrigation systems (less than 5,000 hectares) serve around 1.6 million hectares of land, while medium irrigation schemes (ranging from 5,000 to 50,000 hectares) serve approximately 1.2 million hectares. Furthermore, large irrigation schemes (over 50,000 hectares) are responsible for irrigating 1.7 million hectares of land.

Roughly 50% of the overall irrigation area is situated in the Mekong River Delta, while an additional 16% can be found in the Red River Delta. To support these irrigation systems, there are around 5,600 reservoirs that store and distribute water as required, supplementing the water that is diverted directly from rivers. Pump irrigation is used on approximately 2.1 million hectares of land, and more than 11,500 pumps are used to lift water to higher ground when water levels are insufficient to reach fields.

### iv) Demographics

According to the World Bank and the UN Population Fund, the country was home to 98,186,856 inhabitants in 2022. Thanks to a total fertility rate of 2 children per woman, and a life expectancy at birth of 72 for men and 80 for women, the population annual growth was estimated at 0.8% that same year.


*Figure 5. Age pyramid of Vietnam in 2022*

At this rate, and according to the *United Nations, Department of Economic and Social Affairs, Population Division*, Vietnam population should reach its peak in 2050, with around 108,000,000 inhabitants.

One significant strength of Vietnam is the youthfulness of its population: the median age was 31.2 years in 2022, and more than half (56%) of the population was between 0 and 34 years old in 2018 (compared to 48% in 2030 according to the Population projection from the General Statistics Office). Vietnam has a relatively educated workforce, with approximately 23% considered trained or skilled. In 2022, the labor force (aged 15-64) amounted in total to 55,034,919 people, i.e., 56% of the population.

The middle class (according to international statistics, referring to the population with an income higher than $15 per day) is the new engine of the Vietnamese economy. According to the World Bank, it will reach 50% of the population by 2035 (around 53 million people), compared to 9.5% in 2017 and 13% in 2021 (China: 20%, Thailand: 35%). The aspiration to consume and the desire for upward social mobility make Vietnam a dynamic and essential market in the ASEAN region.

*Table 2. Vietnam: Main demographic figures*

| Main demographic figures | | |
|---|---|---|
| | Vietnam | Italy |
| Overall population | 98.1 M | 59.1M |
| Urban population | 35.2% | 71% |
| Life expectancy<br>• Men<br>• Women | <br>71 years<br>80 years | <br>80.5 years<br>84.8 years |
| Median age | 31.2 | 46.8 |
| Birth rate | 15.2 ‰ | 7 ‰ |
| Death rate | 5.8 ‰ | 12 ‰ |
| Literacy rate | 96% | 99 % |
| Human Development Index (World rank) | 0.707 (117) | 0.895 (30) |

*Source: World Bank 2022*

| HIGHLIGHTS | • A population of nearly 100M inhabitants<br>• A young population and workforce with a median age of 31.2 (compared with Italy's 46.8)<br>• A growing middle class that will reach 50% of total inhabitants by 2035, around 53M people |
|---|---|

## 1. Vietnam – c) Political environment

Vietnam is a one-party state, with the Communist Party of Vietnam (CPV) serving as the only legal political party in the country. The CPV has held a monopoly on political power in Vietnam since the country's reunification in 1975, and continue playing a central role in all aspects of Vietnamese political life.

The Vietnamese government is divided into three main branches: the executive branch, the legislative branch, and the judicial branch. The executive branch is headed by the president, who serves as the head of state and is responsible for foreign affairs and defense. The prime minister, who serves as the head of government, is responsible for domestic affairs and economic policy.

The legislative branch is represented by the National Assembly, which is responsible for passing laws and overseeing the work of the government. The National Assembly is composed of 498 members, who are elected to five-year terms. However, in practice, the National Assembly is largely controlled by the CPV, which holds a majority of the seats.

The judicial branch is responsible for interpreting and enforcing the law, and is composed of the Supreme People's Court, the Supreme People's Procuracy, and the People's Courts. However, the judicial system is also heavily influenced by the CPV, which plays a significant role in the appointment and removal of judges and prosecutors. Vietnam is a centralized state with a heavy bureaucracy, completely dominated by the Communist Party. All officials holding positions of responsibility (executive, legislative, judicial) are members of the Party. The Party also has a strong presence in both public and private enterprises.

The Vietnamese administration is divided into three levels:

- 63 provinces, including 5 "city-provinces" (Hanoi, Ho Chi Minh City, Haiphong, Danang, and Can Tho), which are directly under the authority of the central government.
- 671 districts, towns, and wards under the authority of provinces and "city-provinces."
- 11,773 basic constituencies (communes, towns, and neighborhoods) under the authority of districts, towns, and wards.

The people elect their representatives to the People's Council every five years, which is the local legislative body. In turn, the People's Council elects a People's Committee from among its members, which is the local executive body. These People's Committees (municipalities - local executive) generally consist of 9 to 11 members in provinces and 3 to 5 members in communes.

The People's Committees enjoy relative independence, indicating a certain form of decentralization of power. However, the central government, which has local services replicating the central structure (Labor: Ministry of Labor, Invalids and Social Affairs at the central level, Department of Labor, Invalids and Social Affairs at the local level; Investment: Ministry of Planning and Investment at the central level, Department of

Planning and Investment at the local level, etc.), holds the ultimate decision-making power. The Prime Minister has the authority to relieve, transfer, or dismiss the presidents and vice-presidents of the People's Committees (mayors, vice-mayors) and suspend the implementation of their decisions.

The Party replicates the same organization as the administration at the local level and is present in all decision-making circles. The Secretary of the Party Committee of a locality (province, vice-province, city) holds more weight than the President of the People's Committee. The functions can overlap, with a President of the People's Committee being able to also hold a Party position, and vice versa.

Over the last decades, the central government has worked extensively to improve the economic climate in the country. According to the Doing Business 2020 report produced by the World Bank, Vietnam is ranked 70th out of 190 countries in terms of ease of doing business. The business environment in Vietnam has significantly improved, and its ranking is considered very positive. In fact, Vietnam's score is higher than the regional average of Southeast Asia and that of neighboring and competing countries such as the Philippines (95th) and Indonesia (73rd). In 2020, the report highlighted numerous reforms that facilitate business in Vietnam. For example, the country has made it easier to start a business by publishing authorization notices online and reducing business registration fees. Vietnam has also reduced the cost of taxes by reducing employer contributions. It enforces contracts more easily by making judgments for commercial cases available online. The IMF and the World Bank regularly encourage Vietnam to continue its efforts and accelerate structural reforms to improve further the business environment.

| HIGHLIGHTS | • Vietnam is a one-party centralized state with clear political orientations set over a long period of time.<br>• The Government economic guidelines have been consistent over the last decades, and Vietnam rankings for ease of doing business have drastically improved.<br>• This allows foreign businesses to efficiently strategize their approach of the market and needs in future investments. |
|---|---|

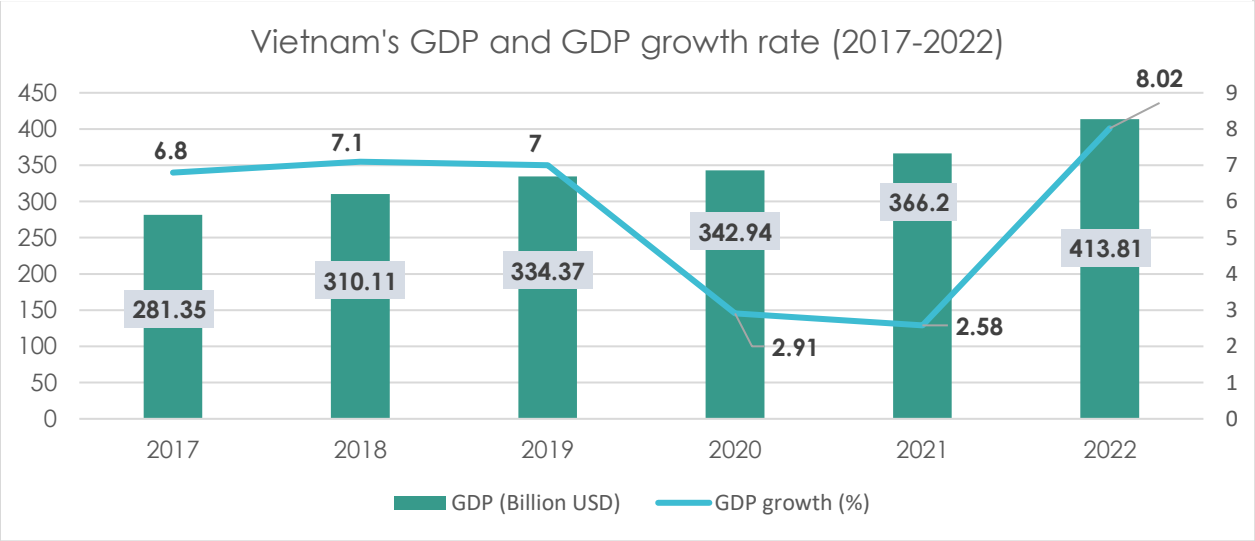
# 1. Vietnam – d) Macroeconomy and trade

## i) Macroeconomy

In 2021, Vietnam is the 6th largest economy in ASEAN. Extreme poverty has now almost been eradicated, decreasing from 50% in 1990 to less than 3% today. The country is classified as a lower-middle-income country, similar to India, Indonesia, and the Philippines.

During the Covid and following its aftermaths, Vietnam's adept management of key macroeconomic variables such as inflation, GDP, balance of payments, foreign reserves, and employment levels, in response to the challenges posed by the pandemic, has significantly contributed to maintaining higher economic growth compared to other countries in the region. This section outlines the timely steps taken by Vietnam to adjust its macroeconomic policy and address the pandemic's challenges.

*Figure 6. Vietnam's GDP and GDP growth rate (2017 - 2022)*



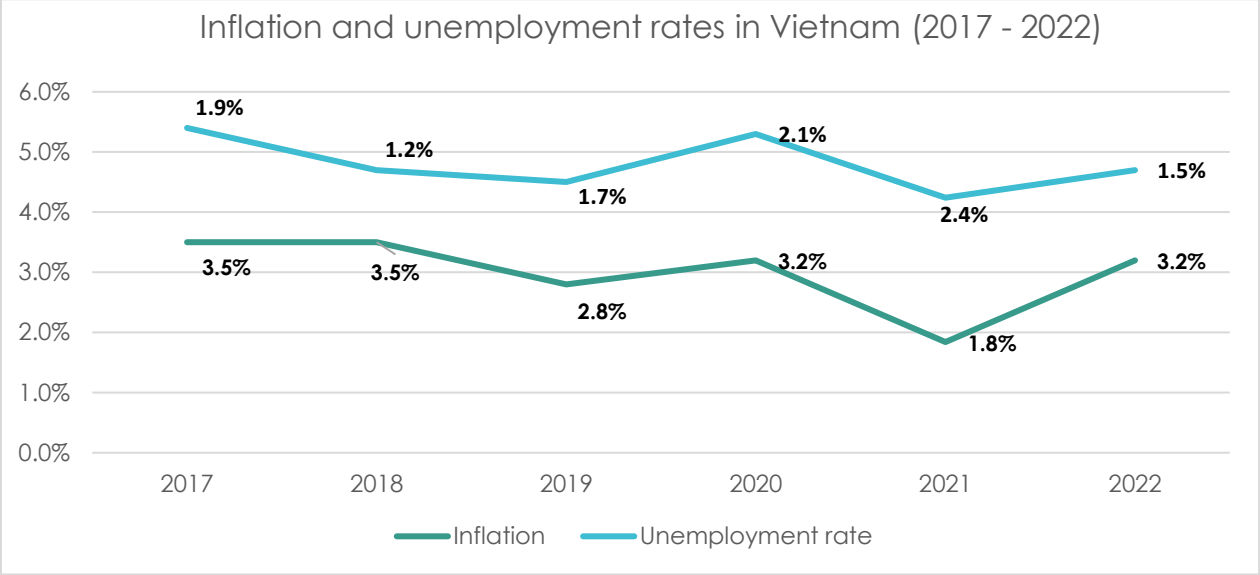

*Source: IMF – World Bank*

Initially, when the pandemic hit Vietnam, the country swiftly implemented measures to contain the spread of the disease, ensuring minimal lockdown periods and mitigating both the health and economic impacts. The success in controlling the disease can be attributed to strategic testing, contact tracing through apps, effective public communication campaigns, citizen involvement, and comprehensive measures to address the adverse societal impact of the pandemic. These efforts, including quick and effective containment measures, aggressive contact tracing, targeted testing, and isolation of suspected cases, have helped keep infection and mortality rates low.

Despite the challenges posed by Covid-19, Vietnam managed to sustain a high GDP growth rate. In 2020, the country's economy demonstrated resilience, expanding by 2.9 percent, one of the highest growth rates globally. In 2022, Vietnam witnessed a robust economic rebound, with a growth rate of 8.02 percent, surpassing the average rate of 7.1

percent recorded from 2016 to 2019. This remarkable achievement exceeded the projections of international institutions such as the World Bank, the International Monetary Fund, and the Asian Development Bank. By the end of 2022, Vietnam's GDP reached USD $414 billion, placing it among the world's top 40 economies.

*Figure 7. Inflation and unemployment rates in Vietnam (2017 – 2022)*




*Source: IMF – World Bank*

Vietnam also maintained tight control over inflation by implementing various measures, including managing market liquidity, employing flexible fiscal policies, and providing exemptions or reductions in taxes and fees for essential and strategic commodities. As a result, the Consumer Price Index (CPI) inflation averaged 3.1 percent in the post-pandemic period. Notably, Vietnam's inflation rate of 3.76 percent in 2022 remained well below the 4 percent target set by the National Assembly. This achievement gains further significance considering the high inflation rates experienced by several other nations, with global inflation projected between 7.25 and 9.4 percent for 2022. Additionally, Vietnam also managed to keep unemployment levels low, with employment recovering to pre-Covid-19 levels in 2022, despite challenges stemming from weakened global demand and labor market pressures.

Recognizing the areas where modernization and industrialization goals had not been fully met, the 13th National Congress of the Communist Party of Vietnam instructed relevant agencies to strive for further economic development. In response, the National Assembly adopted Resolution 43 in 2022, outlining fiscal and monetary policies to support economic recovery following the pandemic and subsequent lockdowns in 2021. This resolution aims to enhance macroeconomic stability and resilience, laying the foundation for continued economic growth in Vietnam.

Under Resolution 43, a comprehensive package of approximately USD $15 billion was allocated for various purposes. Measures included a 2 percent reduction in value-added tax (VAT), funding of VND 14 trillion (USD $620 million) for healthcare infrastructure, disease

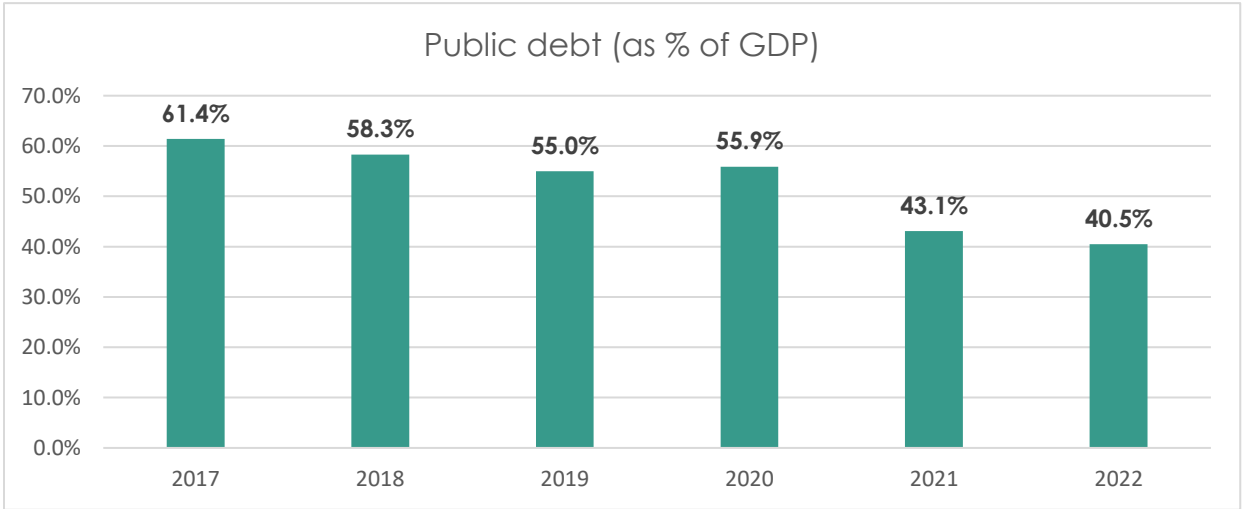
control, and human resources, allocation of VND 5 trillion (USD $220 million) to the Vietnam Bank for Social Policies for preferential loans in job training and vocational education, provision of VND 40 trillion (USD $1.76 billion) in loans at a 2 percent annual interest rate through commercial banks for diverse industries, and allocation of VND 113 trillion (USD $5 billion) for infrastructure projects in transportation, IT, digitalization, water security, climate change, and natural disasters. To ensure effective implementation of these measures, Vietnam also adopted Resolution 11, guiding socio-economic recovery and providing support to employees, businesses, cooperatives, and industry sectors.

In November 2022, the National Assembly further set a target of 6.5 percent GDP growth for 2023 and issued guidelines to achieve it. Priority was placed on monitoring market developments, identifying risks promptly, and implementing feasible solutions, including financial and monetary policies, to stabilize the macroeconomy, control inflation, and support economic recovery. Additionally, the government was directed to expedite the progress of key transport infrastructure projects and resolve obstacles hindering the commissioning of major power projects.

Vietnam made diligent efforts to enhance industrial and agricultural production, with the industrial and construction sectors growing by 7.78 percent, the services sector by 9.99 percent, the agricultural sector by 3.36 percent, and retail sales increasing by 19.8 percent in 2022. Manufacturing and services emerged as key drivers of economic growth, indicating the success of these endeavors. The country's emphasis on digitalization for business facilitation has proven instrumental in driving economic growth, with several initiatives benefiting entrepreneurs.

Those public investments and support packages were also possible because of Vietnam's low levels of public debt. The country even managed to reduce this share during Covid-times, going from 56% of the GDP in 2020 to 43.1% in 2021.

*Figure 8. Public debt (as % of GDP)*



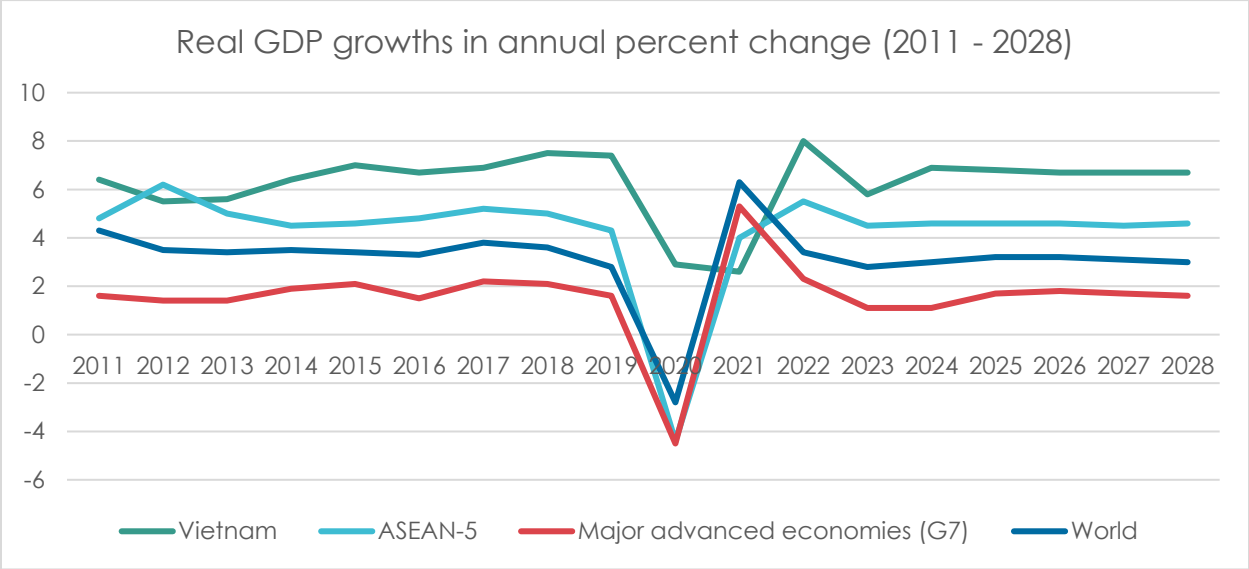

*Source: IMF – World Bank*

Vietnam's exemplary management of macroeconomic policies in the post-pandemic period serves as an inspiration and a model for other countries in the region. However,

continuous efforts are essential to overcome potential obstacles to economic growth. Key areas of focus include reducing Vietnam's increasing debt, creating a more accessible market for foreign investment, acquiring critical technology and a skilled labor force to bolster manufacturing, and exploring new markets and trusted supply chains. While the prospects for Vietnam's economic growth remain promising, a supportive macroeconomic policy will be crucial in achieving the targeted 6.5 percent GDP growth rate in 2023.

However, the forecasts made by international organizations remain extremely confident. According to the latest Economic Outlook by the IMF, Vietnam is projected to continue experiencing remarkable growth over the next five years. The country is expected to sustain a growth rate of 6% or higher until at least 2028, surpassing the average growth rate of the ASEAN 5 countries and doubling that of the global average.

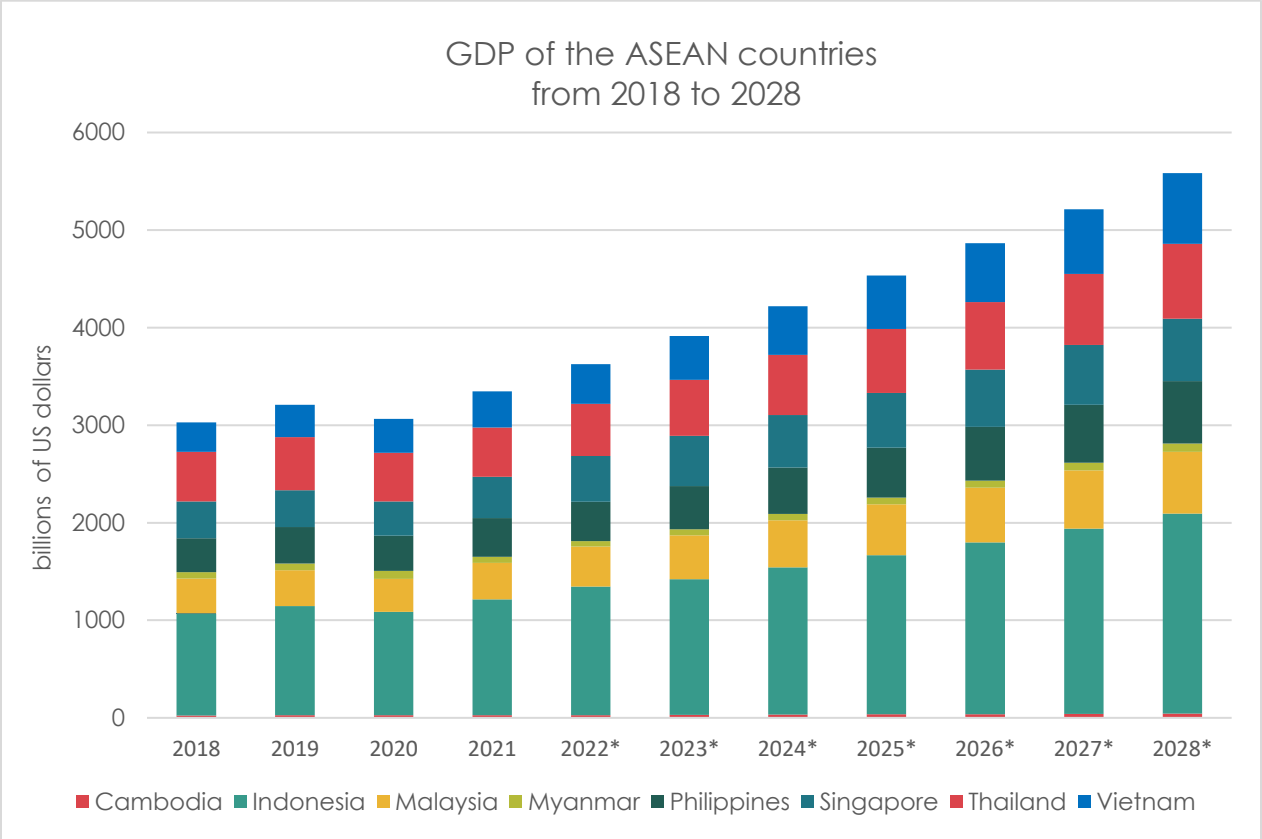
*Figure 9. Real GDP growths in annual percent change (2011 - 2028)*




*Source: IMF - World Economic Outlook 2023*

At this rate, among ASEAN countries, Vietnam's GDP should surpass Singapore's by 2026, and become the region's 3rd economy by 2028 with $725 billion, right behind Thailand ($767 billion) and far behind Indonesia ($2,050 billion). However, if we look at the projected population in 2028, Vietnam's GDP per capita would reach $7,250 /hab., ahead of Indonesia ($6,920 /hab.).

*Figure 10. GDP of the ASEAN countries** from 2018 to 2028*




*Source: IMF - World Economic Outlook 2023 (*Prel. - **except Laos and Brunei)*

By this same year, and still according to the IMF, that would thus place Vietnam at the 28th place in the World in terms of GDP, in the same bracket as Argentina, Taiwan or Ireland.

| | |
|---|---|
| **HIGHLIGHTS** | • Vietnam's GDP has shown remarkable dynamism over the past decades and is expected to become the third largest in ASEAN and the 27th largest in the world by 2028.<br>• Other economic indicators remain strong: inflation is controlled and unemployment levels low.<br>• Vietnam's public debt as a percentage of GDP has even decreased, despite significant investments to support the economy during the crises.<br>• Vietnam is now firmly established as an attractive destination for global business and economic development. |

## ii) Foreign trade & FDI

### a) Trade

In line with its development model, which focuses on upgrading the economy and increasing integration into the global value chain, Vietnam has experienced the most significant progress in the global ranking of merchandise trade over the past decade. The country has risen from 39th in the world in 2009 to 19th in 2020. Its trade volume has increased from $126 billion in 2009 to $669 billion in 2021, showing a strong rebound compared to the previous two years and surpassing global trade figures. However, the growth model, which relies on low-value-added local assembly, leads to a relatively low trade surplus. In 2021, the trade surplus was only $4 billion, representing around 1% of GDP, with the export-to-import coverage ratio reaching only 101.2%.

- Vietnamese exports of goods in 2021: $335.9 billion (+19%)
- Vietnamese imports of goods in 2021: $331.6 billion (+26.5%)

The structure of Vietnamese exports is heavily dependent on the manufacturing sector, particularly electronic products, which account for 33.8% of the total (including phones, electronic products, and computers). Textiles and footwear exports cover 17.5% of the total. Historically, Vietnam is also a major exporter of agricultural, forestry, and agro-food products, with the agricultural sector accounting for 7.9% of exports. In 2021, Vietnam was the world's top exporter of pepper and cashew nuts, the second-largest exporter of coffee, and the fourth-largest exporter of rice. Shrimp, wood, rubber, and fruits and vegetables are other prominent products exported globally.

Foreign-invested enterprises (FIEs) account for nearly three-quarters of Vietnamese exports (73.6%). Their exports grew much faster in 2021 compared to local enterprises (21% versus 13%). FIEs achieved a surplus of $29.3 billion in 2021, while local enterprises recorded a deficit of $25.3 billion. Foreign-invested enterprises play a significant role in Vietnam's export performance.

*Table 3. Foreign Trade values of Vietnam (2017 - 2021): Imports and Export of Goods*

| Foreign Trade Values | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **Imports of Goods (million USD)** | 211,518 | 236,862 | 253,393 | 262,753 | 331,582 |
| **Exports of Goods (million USD)** | 214,323 | 243,699 | 264,268 | 282,725 | 335,929 |
| **Imports of Services (million USD)** | 16,824 | 17,802 | 18,552 | 16,914 | 19,407 |
| **Exports of Services (million USD)** | 12,948 | 24,477 | 27,421 | 18,667 | 3,673 |

*Source: WTO – Latest available data*

Overall, Vietnam's trade sector has shown remarkable growth and an increasing presence in global markets, driven by its manufacturing capabilities and the participation of foreign-invested enterprises.

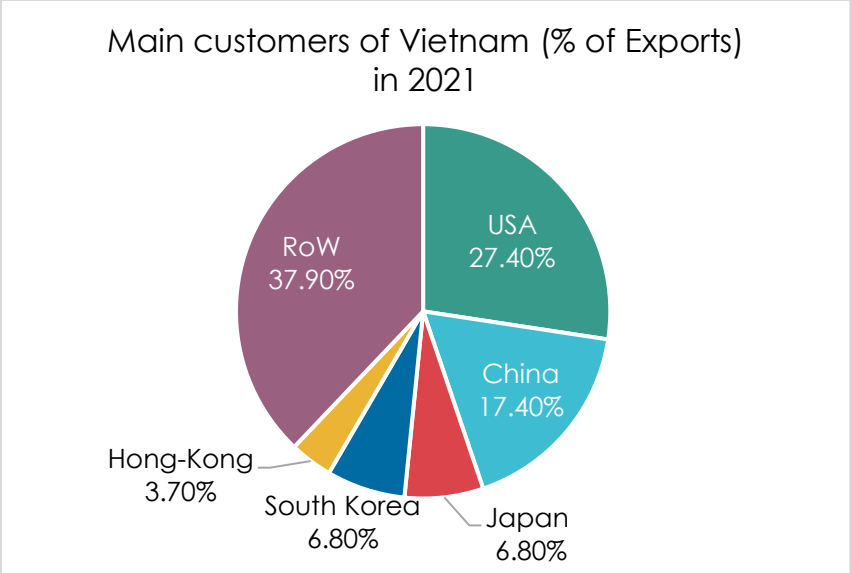
*Table 4. Foreign Trade values of Vietnam (2017 - 2021)*

| Foreign Trade Values | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **Foreign Trade (in % of GDP)** | 161.0 | 164.7 | 164.7 | 163.2 | 186.5 |
| **Trade Balance (million USD)** | 10,864 | 16,540 | 21,494 | 30,708 | 17,697 |
| **Trade Balance (Including Service) (million USD)** | 6,816 | 12,860 | 19,143 | 20,421 | 1,963 |
| **Imports of Goods and Services (Annual % Change)** | 18.2 | 9.6 | 4.9 | 3.3 | 15.8 |
| **Exports of Goods and Services** | 17.3 | 12.3 | 6.2 | 4.1 | 13.9 |
| **Imports of Goods and Services (in % GDP)** | 79.2 | 80.2 | 79.5 | 78.9 | 93.2 |
| **Exports of Goods and Services (in % GDP)** | 81.8 | 84.4 | 85.2 | 84.4 | 93.3 |

*Source: WTO – Latest available data*

Even during the pandemic, Vietnam continued intensifying its efforts to enhance international trade. According to the Ministry of Industry and Trade, Vietnam recorded an estimated total trade volume of USD $673 billion in the first 11 months of 2022, representing an 11.8 percent increase compared to the same period the previous year. By mid-December 2022, the total trade volume of Vietnam surpassed USD $700 billion, surpassing the value achieved in 2021 (USD $668 billion). At the end of 2022, Vietnam's total import-export turnover reached USD $730 billion, resulting in a trade surplus of over USD $10 billion.

*Figure 11. Main customers of Vietnam (% of Exports) in 2021*



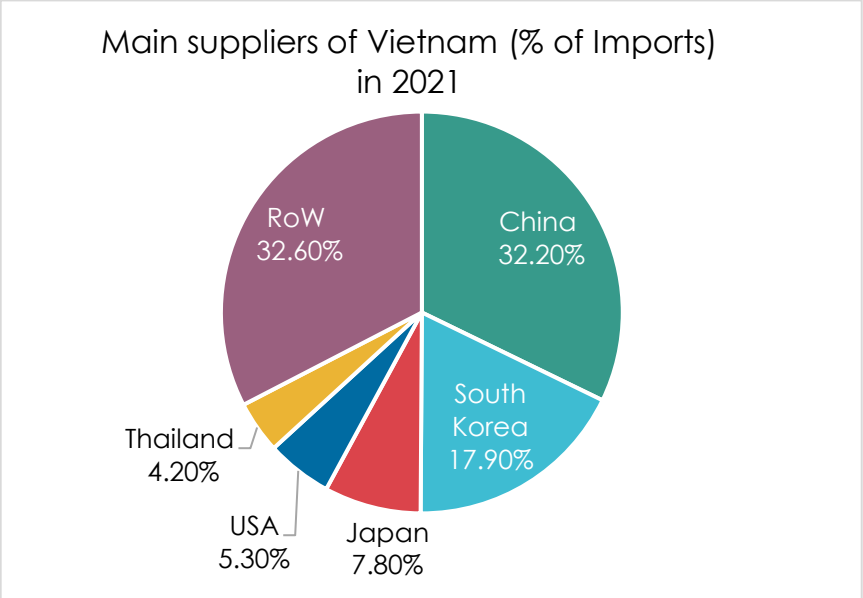

The USA remain by far the main overseas market for Vietnamese products, accounting for more than a quarter of exports in value, followed by China, Japan and South Korea.

*Source: ITC Trade Map – Latest available data*

*Figure 12. Main suppliers of Vietnam (% of Imports) in 2021*

When it comes to supplying markets, the country relies heavily on China, which represents a third of what Vietnam imported in 2021, in value. South Korea is the second main partner, with 17.9% of the total value.

*Source: ITC Trade Map – Latest available data*



### b) FTA and International treaties

In recent years, Vietnam has demonstrated strong commitment to trade liberalization. It joined the WTO in 2007 and has since been signatory to 18 active and planned, bilateral and multilateral Free Trade Agreements. These offer direct potential trade advantages with numerous partner countries and regions.

In particular, the European Union-Vietnam Free Trade Agreement (EVFTA) is a comprehensive trade agreement between Vietnam and the European Union (EU), ratified by the European Parliament in February 2020 which has since brought significant trade advantages for Vietnam, including the reduction or elimination of tariffs on many products.

The other main trade agreement being:

• The ASEAN Free Trade Area (AFTA): Vietnam is a member of the Association of Southeast Asian Nations (ASEAN) and benefits from the ASEAN Free Trade Area, which promotes trade and economic integration among ASEAN member countries.

• Trans-Pacific Partnership (TPP): Vietnam was an original signatory of the TPP, a trade agreement that aimed to deepen economic ties among 12 Pacific Rim countries. Although the United States withdrew from the agreement, the remaining 11 countries, including Vietnam, continued negotiations and concluded the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).

• Regional Comprehensive Economic Partnership (RCEP) in 2020: The RCEP is a landmark trade agreement that was signed by Vietnam and 15 other countries in the Asia-Pacific region (Australia, Brunei, Cambodia, China, India, Indonesia, Japan, Laos, Malaysia, Myanmar, New Zealand, Philippines, Singapore, South Korea, Thailand). It covers a wide range of areas, including trade in goods and services, investment, intellectual property, and e-commerce. To this day, it remains the world's largest trade agreement, giving access to a potential market comprising 30 percent of the world's global GDP and population.

• Vietnam-Japan Economic Partnership Agreement (VJEPA): This bilateral agreement between Vietnam and Japan aims to promote trade and investment cooperation between the two countries.

• Vietnam-Korea Free Trade Agreement (VKFTA): The VKFTA is a bilateral trade agreement between Vietnam and South Korea, which has led to increased trade between the two countries.

• Vietnam-Chile Free Trade Agreement (VCFTA): This agreement between Vietnam and Chile aims to enhance economic cooperation and eliminate trade barriers between the two countries.

• Vietnam-Eurasian Economic Union Free Trade Agreement (VN-EAEU FTA): The VN-EAEU FTA is a trade agreement between Vietnam and the Eurasian Economic Union (EAEU),

comprising Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Russia. It promotes trade and investment between Vietnam and EAEU member countries.

### c) FDI

According to UNCTAD (United Nations Conference on Trade and Development), the stock of foreign direct investment (FDI) in Vietnam has more than tripled in 10 years, increasing from $57 billion in 2010 to $177 billion by the end of 2020 (equivalent to 51.6% of GDP). This places Vietnam as the 4th largest recipient of FDI in ASEAN (behind Singapore, Thailand, and Indonesia), the 16th largest among developing countries, and the 37th globally. 8 out of the top 10 investors in Vietnam are Asian countries. South Korea is the largest investor, driven by companies like Samsung and LG, followed by Japan, Singapore, and Taiwan. China ranks 7th, but if FDI from Hong Kong is included, it moves up to 4th place. France ranks 16th and 2nd among EU countries, behind the Netherlands.

The actual FDI inflows to Vietnam remained relatively stable between 2019 and 2020, with a slight decrease of 2%. This is remarkable considering the global decline of 35% and the 25% decline in Southeast Asia during the same period.

For 2021, only Vietnamese figures are currently available, showing a rebound of over 9% in FDI commitments, reaching $31.2 billion. This enthusiasm for Vietnam can be attributed to several factors, including a young and cost-effective workforce, favorable taxation, political stability, participation in a dense network of free trade agreements, privileged access to the ASEAN market, and the need to produce for both exports and the domestic market. FDI serves as a driving force in the economy, along with external trade and consumption, and is the result of a sustained strategy at the highest political level. The authorities have set an objective to attract $200 billion in FDI licenses for the period 2021-2025 and $300 billion for the period 2026-2030.

The ongoing relocation of Chinese factories and labor-intensive activities by multinational corporations, partly to bypass trade tensions between the United States and China, has also contributed to the surge in investments and new projects, particularly in Vietnam, which is seen as the major beneficiary of these relocations in the region.

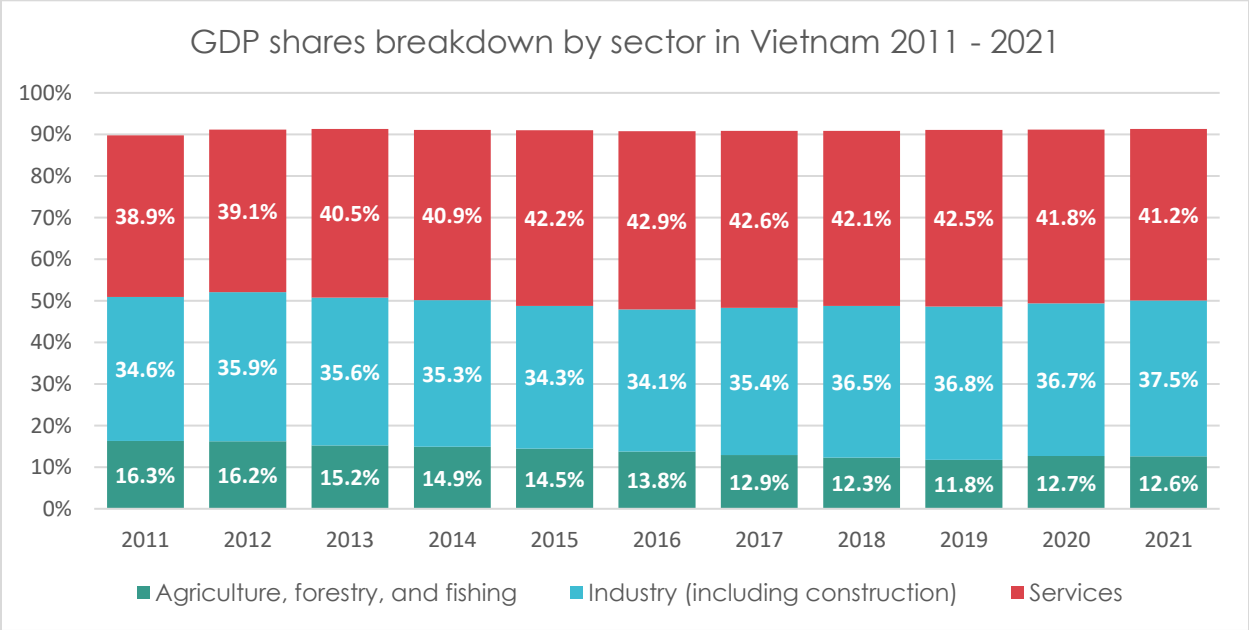
Legally, Vietnam enacted an investment law on November 26th, 2014, Law No. 67/2014/QH13, and its implementing decree on November 12, 2015, Decree 118. The objective of these regulations is to eliminate or reduce discrimination between foreign and domestic investors. Most of the previously imposed restrictions on foreign investors have been lifted, with only six sectors, primarily related to national security, remaining prohibited to foreigners, compared to 51 under the 2005 law (see Article 6 of the investment law). The number of conditionally restricted sectors has been reduced from 386 to 267 activities. Incentive measures have been introduced, providing tax exemptions to investors based on the type of activity and project location.

| HIGHLIGHTS | • The Vietnamese way of approaching economy is practically a free-market approach.<br>• The country is resolutely open to the world, having signed or being currently negotiating close to 20 different free trade agreements and economic partnerships.<br>• The EVFTA allows free trade between the EU and Vietnam, with taxation suppressed for over 99% of HS Codes in few years.<br>• Trade is the powerhouse of the Vietnamese economy and around three quarters of Vietnam's exports come from foreign-owned companies.<br>• Thanks to favorable policies, tax exemptions, and improving ease of doing business, FDI stock has tripled in Vietnam over the last decade. |
|---|---|

## 2. Agriculture in Vietnam – a) Overview – i) Overall figures and trends

Vietnam's economy has undergone a significant transformation over the years. In 2021, the agricultural GDP accounted for approximately 12.6% of the total GDP, marking a substantial decline from 38.06% in 1986, a shift highlighting the diversification and modernization of Vietnam's economy as is often the case in developing countries throughout the world.

*Figure 13. GDP shares breakdown by sector in Vietnam 2011 - 2021*

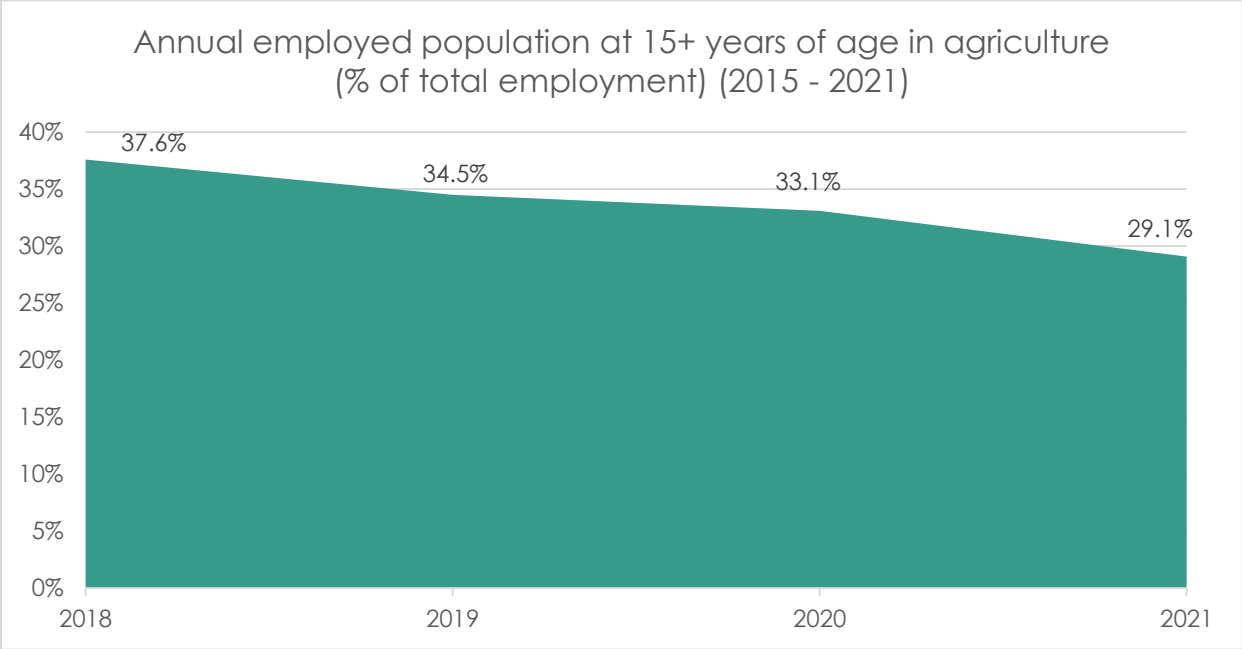



*Source: General Statistics Office of Vietnam – Latest data available*

In spite of its now-diminished weight in the overall economy, the sector remains a dynamic and important one for the Vietnamese economy: in 2022, Vietnam's agricultural sector experienced its highest growth in recent years reaching 3.36 percent. Of this figure, farming increased by 2.88 percent, fisheries increased by 4.43 percent, and forestry increased by 6.13 percent.

As Vietnam entered a period of rapid economic growth since the beginning of 2000s, the country experienced a drastic transformation of the labor force distribution towards the industrial and service sectors. The agriculture sector that had accounted for 62.5% of the total employed labor in 2000 was reduced to only an estimated 29.1% in 2021, while the agricultural land (planted area) of the country increased from 12.6 million hectares to 15 million hectares during the same period. The mechanization of agriculture in Vietnam, as described farther in this report, is one of the consequences of this labor shortage in the agricultural sector.

*Figure 14. Annual employed population at 15+ years of age in agriculture (% of total employment) (2015 – 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

Nonetheless and overall, according to a report from Asia Development Bank, agriculture continues playing a socially stabilizing role in face of volatile macroeconomic conditions and worldwide situational challenges (first of foremost during the Covid pandemic), providing the country a reliable, affordable, and increasingly diversified source of food.

When it comes to trade, Vietnam's agricultural export turnover has witnessed a remarkable surge, escalating from $4.2 billion in 2004 to $41.3 billion in 2019, and over $53.22 billion in 2022, constituting 14.33% of the country's total national exports. The agricultural sector's success can be attributed to its diverse range of products, including rice, coffee, pepper, tea, cashews, rubber, cassava.

Furthermore, Vietnam has achieved significant milestones in terms of agricultural development and food security. The country has successfully transitioned from being a net importer of rice to becoming the second-largest rice exporter globally (today 4$^{th}$). It is estimated that Vietnam's rice exports reached a record high of 6.15 million metric tons in 2020.

In addition to rice, Vietnam's coffee industry has experienced substantial growth. The country is now the world's largest exporter of Robusta coffee, accounting for about 40% of global production. In 2020, Vietnam exported approximately 1.61 million metric tons of coffee, generating significant revenue and contributing to the country's economic growth.

As you will see *infra*, Vietnam's agricultural products find lucrative markets primarily in China, Europe, the United States, ASEAN countries, Japan, and Korea. These export destinations have played a significant role in driving Vietnam's agricultural sector's growth and ensuring the stability of its economy.

These achievements in Vietnam's agricultural sector have been supported by various government policies and initiatives. The government has focused on investing in infrastructure development, promoting agricultural research and innovation, and providing support to farmers and agricultural enterprises. These efforts have helped enhance productivity, quality, and competitiveness, contributing to the overall success of Vietnam's agricultural exports.

| | |
|---|---|
| **HIGHLIGHTS** | • Agriculture's share of GDP fell sharply over the last decades.<br>• In parallel, agriculture employment share also fell but at a much lower rate and remains 2.3 times higher than the share in GDP: this means that labor productivity in the Agricultural sector is still relatively low.<br>• The value of Vietnam agricultural exports has grown tenfold between 2004 and 2022.<br>• The importance of agriculture for trade and for the government, and the relatively low levels of productivity, imply business opportunities in the fields of mechanization, agro-infrastructures and overall farm modernization. |

## 2. Agriculture in Vietnam – a) Overview – ii) Market structure

In Vietnam, agriculture, forestry, and fishery production are organized into three main types of production unit: households, cooperatives, and enterprises. According to the latest survey from the Ministry of Agriculture and Rural Development (MARD) in 2020, the whole country had a total of 9,123,018 agricultural, forestry, and fishery production units with the details as follows:

- Households: 9.108.129 units (99.83%)
- Cooperatives: 7.418 units (0.08%)
- Enterprises: 7.471 units (0.08%)

*Table 5. Number of agricultural, forestry and fishery units in 2016 and 2020 by type of production, economic sector and by region*

| Number of agricultural, forestry and fishery units in 2016 and 2020 by type of production, economic sector and by region | | | | |
|---|---|---|---|---|
| | Total of units | | Comparison between 2020 and 2016 | |
| | 2016 | 2020 | Variation (unit) | Comparative rate (%) |
| **Whole country** | **9 291 825** | **9 123 018** | **- 168 807** | **98.18** |
| Enterprises | 3 846 | 7 471 | 3 625 | 194.25 |
| Cooperatives | 6 946 | 7 418 | 472 | 106.8 |
| Household | 9 281 033 | 9 108 129 | - 172 904 | 98.14 |
| ***Agriculture*** | 8 462 646 | 8 174 162 | - 288 484 | 96.59 |
| Enterprises | 1 740 | 4 426 | 2 686 | 254.37 |
| Cooperatives | 6 646 | 6 885 | 239 | 103.6 |
| Household | 8 454 260 | 8 162 851 | - 291 409 | 96.55 |
| ***Forestry*** | 116 092 | 163 328 | 47 236 | 140.69 |
| Enterprises | 645 | 1 112 | 467 | 172.4 |
| Cooperatives | 44 | 86 | 42 | 195.45 |
| Household | 115 403 | 162 130 | 46 727 | 140.49 |
| ***Aquaculture*** | 713 087 | 785 528 | 72 441 | 110.16 |
| Enterprises | 1 461 | 1 933 | 472 | 132.31 |
| Cooperatives | 256 | 447 | 191 | 174.61 |
| Household | 711 370 | 783 148 | 71 778 | 110.09 |

**Households**

Household is the basic economic unit in agricultural, forestry, and fishery production in our country today. Following GSO (General Statistics Office), in 2020, households accounted for 99.83% of the total agricultural, forestry, and fishery production units (9,108,129 households out of the 9,123,018 production units).

According to the study, in recent years, many households have expanded their production scale:

- Increasing the average number of agricultural land plots per household (2.5 plots in 2016 to 2.8 plots in 2020)
- Increasing of the average plot per household (from 1,843.1 sqm in 2016 to 2,026.3 sqm in 2020)

**Farms**

If a household generates a certain amount of output/revenue, it is then categorized by the MARD as a "Farm".

The Ministry of Agriculture and Rural Development (MARD) identifies the following 2 categories of farms alongside the criteria related to those categories. Those are specialized farms and general farms. This definition is validated from 2020, following the Circular No. 02/2020/TT-BNNPTNT dated February 28, 2020 of MARD.

***Specialized farms***

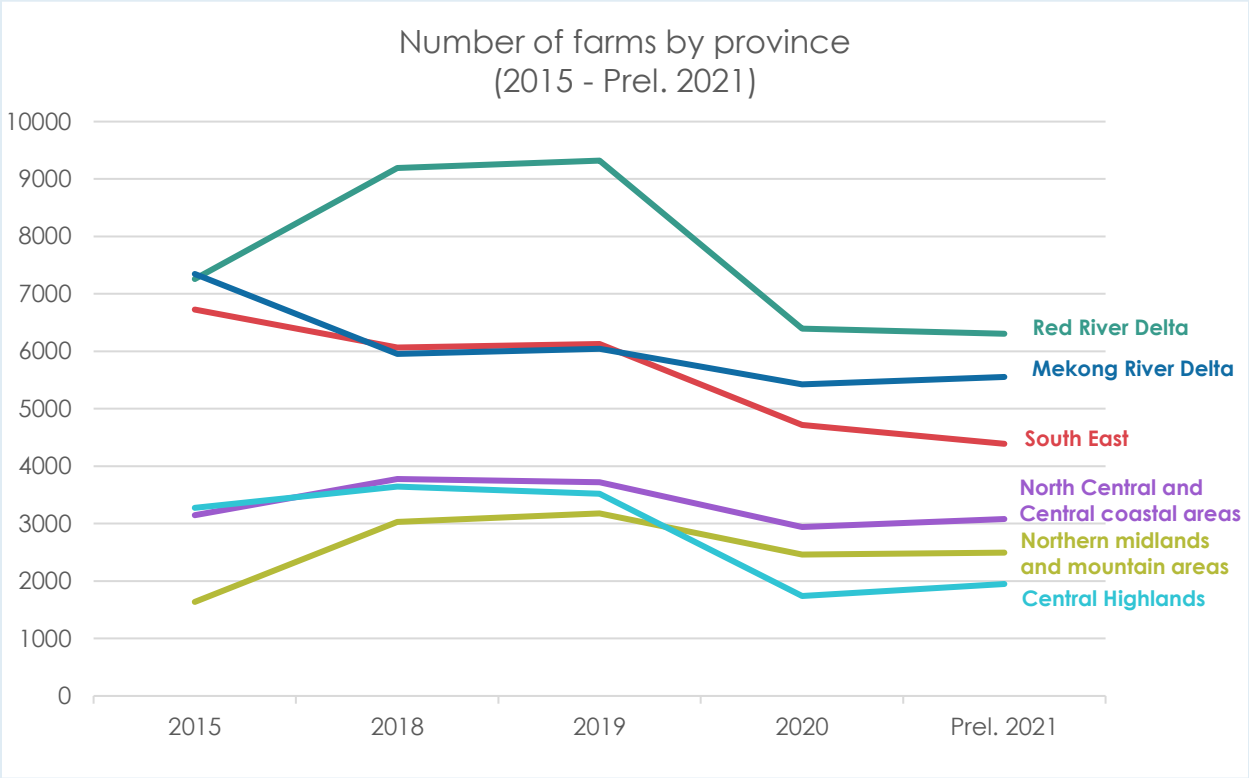
- **Characteristics:** Specialized farms are defined by production fields such as cultivation, animal husbandry, forestry, aquaculture, and salt production, and the proportion of the product value of the field accounts for more than 50% of the total product value structure farm produce during the year.

- **Types of specialized farms**
  - Cultivation: The average output value must reach at least VND 1 billion per year and the total production land area must be from 1 ha and above;
  - Livestock: The average output value must reach at least VND 2 billion per year and the scale of farm husbandry must reach regulation as stated in Article 52 of the Law on Livestock;
  - Forestry production: The average output value must reach at least VND 1 billion per year and total production land area must be from 10 ha and above;
  - Aquaculture production: The average output value must reach at least VND 2 billion per year and the total production land area must be from 1 ha and above;
  - Salt production: The average output value must reach at least VND 0.35 billion per year and total production land area must be from 1 ha and above;

***Integrated farms***

- **Characteristics:** Integrated farms maintain a product value structure where no single product contributes more than 50% of the total value in a year. Additionally, these farms must have an average production value of at least VND 2 billion per year and a minimum total production land area of 1 hectare.

*Figure 15. Number of farms by province (2015 - Pre. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021 (section 177, p505-506)*

*Figure 16. Farms in Vietnam by kinds of economic activity in 2021*

While the overall number of farms in the country has increased from 2015 to 2019, it has decreased from 2019 to 2020 due to Covid-19, and then remained relatively stable in preliminary 2021.

In terms of share, livestock farms represent the overwhelming majority, with 60% of the total farms, followed by the cultivation farms (28% of the total).

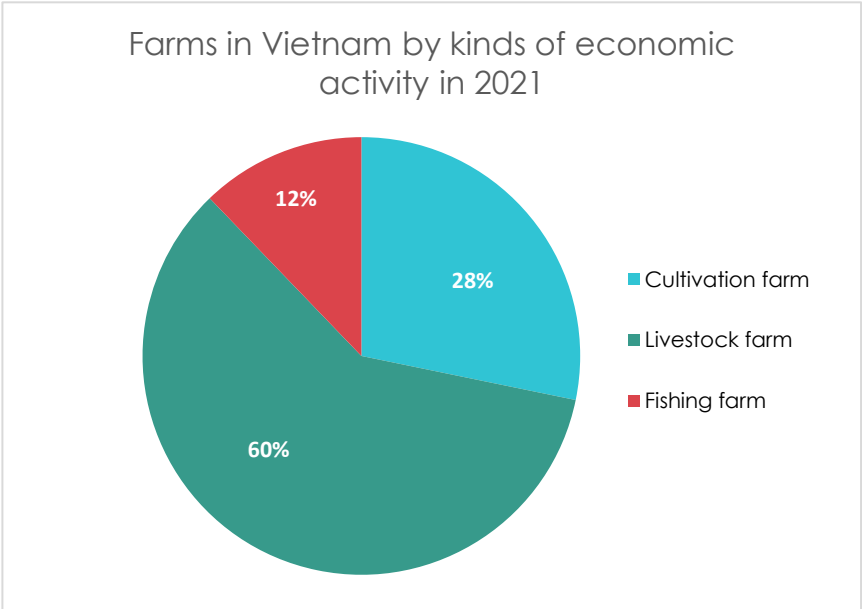
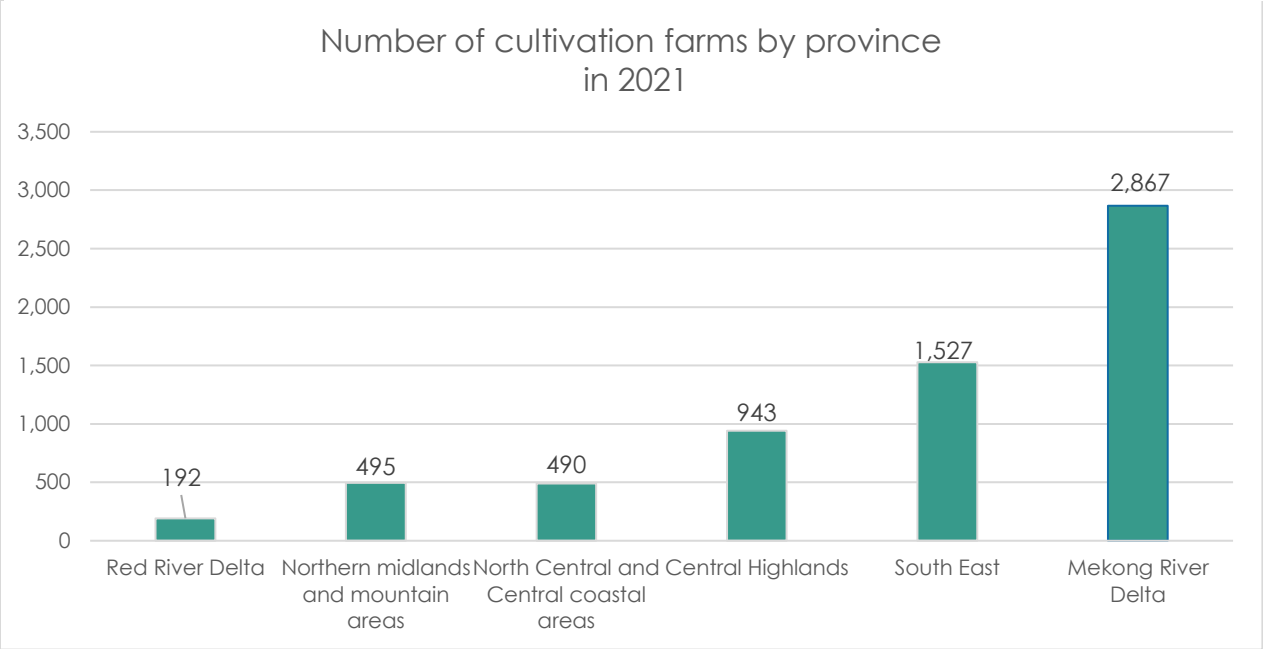


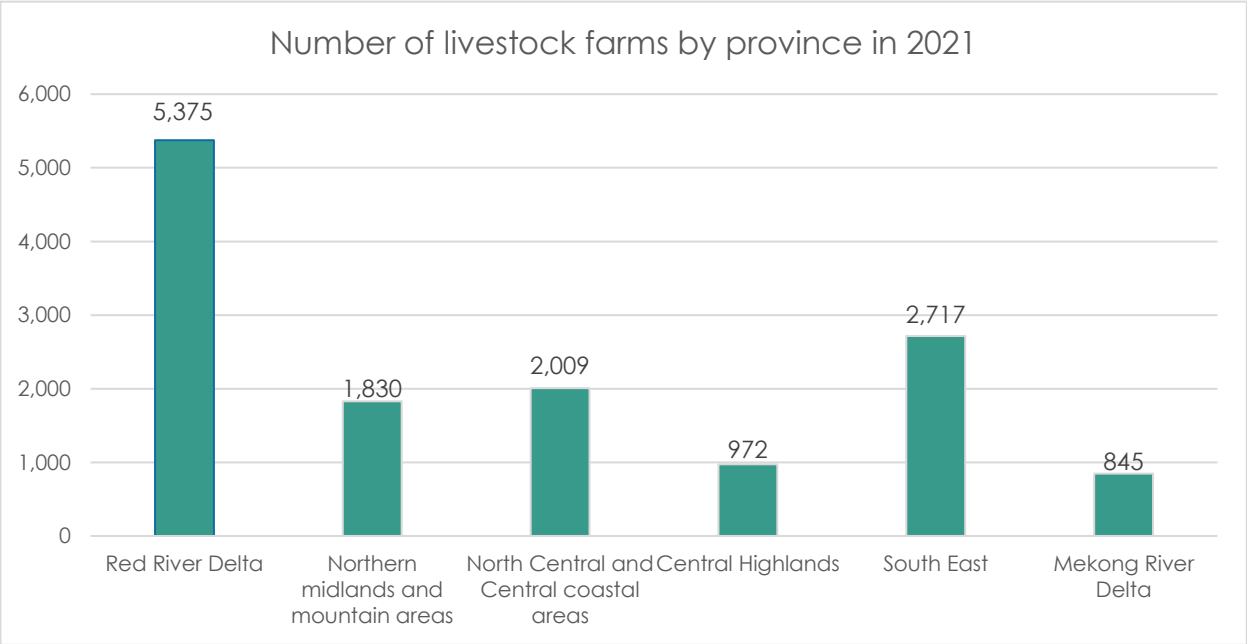
*Figure 17. Number of cultivation farms by province in 2021*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

The two deltas, the Red River Delta in the north and the Mekong Delta in the south, remain the backbone of the country's agricultural industry. These regions are where the majority of farms are concentrated, each with its own specialization. The northern Red River Delta is known for its focus on livestock farming, while the southern region, around the Mekong Delta, excels in crop cultivation.

*Figure 18. Number of livestock farms by province in 2021*




*Source: GSO – Statistical Yearbook of Vietnam 2021 (section 178, p507-508)*

**Cooperatives unit**

According to publicly available statistics as of December 31, 2019, Vietnam had a total of 7,418 cooperatives in the agricultural, forestry, and fishery sectors. This was a growth of 6.80% compared to the figure in 2015. Among these cooperatives, 6,885 were related to agriculture, accounting for 92.81% of the total, while 86 were related to forestry (1.16%) and 447 were related to fisheries (6.03%). Furthermore, in the same year, the average net revenue of an agricultural, forestry, and fishery cooperative reached VND 2.32 billion at current prices, which was 2.2 times higher than the figure in 2015. This represents an average annual growth rate of 17.55%.

**Enterprise unit**

As of December 31, 2019, there were 7,471 businesses operating in the agriculture, forestry, and fishery sectors across the country, marking a significant increase of 94.25% compared to the figure recorded on December 31, 2015. These businesses collectively generated a total net revenue of VND 168.50 trillion ($7 billion) in 2019 at current prices, which translates to an average revenue of VND 22.55 billion ($1 million) per enterprise.

| HIGHLIGHTS | • "Household" is the main agricultural unit in Vietnam, accounting for 99.83% of the total units.<br>• Over the last few years, those household farms tend to either disappear (for regulatory or competitiveness reasons) or evolve to enter the "Farm" category.<br>• The larger farming units are concentrated in the two Delta regions: the Mekong Delta for cultivation farms, the Red River Delta for livestock |
|---|---|

## 2. Agriculture in Vietnam – a) Overview – iii) Political and regulatory environment

Agriculture remains one of the key strategic sectors of the Vietnam Government. An important point in the policy framework is the development of five-year socio-economic development plans (SEDPs).

The Ministry of Agriculture and Rural Development is primarily responsible for policy formulation and implementation, and many other ministries, sectors and central agencies are also involved. Furthermore, since the implementation of fiscal decentralization in 2002, local governments have been given a larger role in the planning and implementation of agricultural policies. These factors create coordination challenges in agricultural policy development at central and regional levels.

Agricultural policy objectives are given in a number of documents and plans. These documents often have objectives, often specific goals and actions to achieve the stated goals. Overall, these goals focus on increasing agricultural production through:

- Improved productivity, quality and competitiveness; infrastructure development
- Raising the living standards of the rural population
- Strengthen international integration of the industry
- Use and protect natural resources and the environment in a sustainable and effective manner.

To achieve these goals, the government and relevant institutions have been implementing several policies and tools over the last 2 decades, the main ones being:

- **Subsidy Measures**: Field rice prices are supported by subsidies to rice collectors for temporary storage during the harvest period and by determining a target price that fluctuates between regions and seasons, with the goal of guaranteeing farmers a profit of 30%.
- **Irrigation fee exemption**: Before 2009, farmers paid contribution to the cost of management, protection and maintenance of irrigation works in the upper-level systems. Irrigation fee waivers have been in place for most farmers since 2009, leading to a significant increase in state support for irrigation and drainage management companies.
- **Seed and livestock subsidies**: Many programs provide genetically modified seeds and livestock breeds to farmers at subsidized rates. At the national level, these supports are often provided as part of a relief package for farmers recovering from natural disasters or epidemics.
- **Area payments**: In 2012, direct payments per hectare were introduced to rice farmers as part of measures to protect and support the development of rice land.
- **Insurance**: A pilot insurance program was introduced in 2011, providing premium payments for rice, livestock and aquaculture production in 21 provinces.
- **Income support**: Since 2003, most of the farming households and organizations have been exempted or reduced from the agricultural land use tax.

- **Agricultural supporting services**: Central funding for an agricultural extension has been allocated through an open bidding system since 2001. The essence of this approach is top-down, the extension system is driven by actual needs.

*Table 6. Current forms of tax and fee incentives in Vietnam for agriculture*

| Current forms of tax and fee incentives in Vietnam for agriculture | |
|---|---|
| **Tax** | **Promotion form** |
| **VAT** | Agricultural products that have not been processed or have only undergone basic processing by organizations or individuals who produce or catch them for sale, as well as goods imported, are exempt from value-added tax (VAT) in some cases.<br>Agricultural products that have not been processed, with the exception of timber and bamboo shoots, are exempt from VAT in the commercial trading stage, and some input materials are subject to a preferential tax rate of 5%. |
| **CIT (Corporate Income tax)** | Exemption from Corporate Income Tax (CIT) applies to income derived from cultivation, husbandry, and aquaculture activities of organizations established under the Cooperative Law.<br>A preferential tax rate of 10% is applied for a period of 15 years, while a rate of 15% is applied to income of enterprises in some agricultural sectors. For high-tech agricultural enterprises, a preferential tax rate of 10% is applied for a duration of 15 years, with maximum tax exemption of up to 4 years and a 50% reduction of payable taxes for up to 9 subsequent years. |
| **PIT Personal Income Tax** | Tax exemptions apply to the following incomes:<br>(i) Income of households and individuals directly engaged in agricultural, forestry, salt-making, aquaculture, fishing activities that have not undergone processing into other products or have only undergone ordinary preliminary processing.<br>(ii) Income from the conversion of agricultural land allocated by the State for production by households and individuals.<br>(iii) Income from wages and remuneration of Vietnamese seafarers working for foreign shipping companies or Vietnamese shipping companies engaged in international transport; income of individuals who are ship owners or individuals authorized to use ships, and individuals working on board ships involved in the direct provision of goods and services for offshore fishing and exploitation activities. |
| **Import Tax** | The sectors eligible for tax incentives on exports and imports include:<br>(i) cultivation and processing of agricultural, forestry, and aquatic products; forest planting and protection; salt production; exploitation of aquatic resources and related logistics services; production of plant and animal breeds, and biotechnology products.<br>(ii) Domestic production of plant and animal breeds, as well as pesticides and fertilizers that have not yet been produced, must comply with regulations set by competent state management agencies, and imports are necessary. |
| **Tax on agricultural land use** | Exemption from agricultural land use tax is granted until December 31, 2025 for specific subjects as stipulated. |

| | |
|---|---|
| **Resource tax** | The following three agricultural sectors are eligible for tax exemption: (i) Natural seafood; (ii) Branches, twigs, firewood, bamboo, rattan, holly, peach blossoms, apricot blossoms, orchid blossoms, grass, and reeds that are allowed to be exploited by individuals for household use; (iii) Natural water exploited by households and individuals for household use. |
| **Registration fee/ License fee** | Some cases are exempt from paying or are waived from paying registration fees, such as agricultural land (according to regulations); fishing vessels; and inland waterway vehicles (according to regulations). |
| **Entrance fee** | Some sectors in agriculture are exempt from paying the entrance fee, such as: individuals, groups of individuals, and households producing salt; organizations, individuals, groups of individuals, and households engaged in aquaculture, fishing, and related logistics services; cooperatives and cooperative unions operating in the agricultural sector in accordance with the law on agricultural cooperatives. |

- **Government funding policy**

Investment capital for agriculture includes:

(i) The central budget, which allocates a budget equivalent to at least 5% of annual development investment capital.

(ii) Provincial and centrally-governed city budgets, which allocate at least 5% of their annual local budget expenditure.

(iii) Ministries, sectors, and local government may use integrated capital from socio-economic development programs and projects and legal funds to support enterprises. The government has prioritized allocating investment capital for agricultural and rural development from the state budget, and government bonds, and increasing the mobilization of social capital sources.

- **Credit policy**

The Party and the Government have always identified agriculture as one of the priority areas for investment capital, and as such, have issued and implemented many policies to direct credit flows into this field, including:

(i) Interest rate support policy to reduce agricultural losses. Accordingly, the State Budget (SBV) supports interest rates on commercial loans for long-term, medium-term, and short-term loans in VND to buy machinery and equipment to reduce losses in agriculture;

(ii) Pilot loan program for agricultural development. This is a pilot loan program for linkage models in the production and consumption chain of agricultural products, and models of applying science and high technology in agricultural production;

(iii) Credit policy for agricultural and rural development.

To encourage investment in high-tech and clean agriculture, the government has requested the State Bank to instruct state-owned commercial banks to dedicate a loan

program of at least VND 100,000 billion (around 4.2 billion USD) from their mobilized capital. This program should have suitable interest rates that are lower than market interest rates.

**General services for the agricultural sector**

**(i) Irrigation**: Basic investment in irrigation works is the largest public expenditure of the Government in support of agriculture.

**(ii) Research and development**: Although it has increased during the 2000s, spending on research is relatively small compared to other countries. Vietnam has made efforts to better coordinate research activities since 2005 by reorganizing research agencies under the supervision of the Vietnam Academy of Agricultural Sciences.

**Trade Policy Tools**

**Tariff**: The average MFN (Most favored nation) tariff rate for agricultural products went down from approximately 25% in the mid-2000s to 16% in 2013. While MFN tariff rate of 40% is imposed on a broad range of commodities such as meat, poultry, tea, grapefruit, and processed fruits and vegetables, the average agricultural import tax rate is only 3.4% and 5.4% for ASEAN member countries and China, correspondingly.

**Import license**: The Ministry of Agriculture and Rural Development oversees the import of veterinary drugs, pesticides, plant varieties, livestock, animal feed, fertilizers, and plant, animal, and microbial genetic resources for scientific purposes to guarantee minimum standards and quality.

**Sanitary and Phytosanitary (SPS) and Food Safety**: Since joining the WTO in 2007, Vietnam has made some progress in implementing the requirements of the Agreement on Sanitary and Phytosanitary Measures. However, the governance mechanism is still affected by limited capacity, weak coordination, and numerous overlapping documents.

**Export Tax**: Export tax is applied to a limited range of agricultural-related products such as raw hides, rubber, and cashew nuts, although the tax rate for cashew nuts is 0%. From July to November 2008, a progressive export tax was imposed on rice exports with the aim of limiting price increases in the domestic market.

**Export Permits**: The government maintains control over rice exports. Exporters must meet specific requirements regarding milling and storage, and certain administrative functions are vested in the Vietnam Food Association (VFA). VFA is influenced by two large state-owned enterprises: Vinafood I and Vinafood II. State-owned enterprises play a dominant role in exporting other commodities such as coffee, rubber, and tea.

**Regional Trade Agreements**: Vietnam is a member of the Association of Southeast Asian Nations (ASEAN), Asia-Pacific Economic Cooperation (APEC), and the World Trade Organization (WTO). These agreements support trade liberalization between ASEAN member countries and important trading partners in the region such as China, Japan, India, South Korea, Australia, and New Zealand, and participation in negotiations for the Trans-Pacific Partnership (TPP) agreement.

| HIGHLIGHTS | • Agriculture was and remain a top priority for the Vietnamese government.<br>• Several schemes (ease of regulations, incentives, etc.) have been implemented over the last decades and are available to support farmers and agriculture business in their development. |
|---|---|

## 2. Agriculture in Vietnam – a) Overview – iv) Climate change

Vietnam is often presented as one of the countries that are most vulnerable to climate change. The country is already experiencing the adverse impacts of climate change, including higher and more erratic temperatures, as well as rising sea levels. These impacts are disrupting economic activities and undermining overall growth. Preliminary assessments indicate that in 2020 alone, Vietnam incurred a loss of $10 billion, equivalent to 3.2 percent of its GDP, due to climate change.

If adequate adaptation and mitigation measures are not implemented, climate change is projected to cost Vietnam approximately 12 percent to 14.5 percent of its GDP annually by 2050. Additionally, it could push up to one million people into extreme poverty by 2030. Recognizing the urgency of addressing these challenges, Vietnam is currently formulating its climate strategy.

The Climate Change and Development Review (CCDR) has identified a range of actions and options for both the public and private sectors. These measures aim to enhance climate resilience, achieve Vietnam's commitment to net-zero greenhouse gas emissions by 2050, and promote socioeconomic development. At the forefront of those identified measures are those related to the need for more resilient agriculture, forestry and fishery, while implementing solutions and equipment that can maintain productivity (change of practices, changing/upgrading of irrigation, support large scale investments and facilitate the entry of big operators, improve access to financing, etc.). The aim is to effectively fight the two main effects of climate change on agricultural production:

- Hydro-meteorological events such as floods, droughts, and typhoons;
- Changes in temperature and precipitation over time.

Vietnam is considered one of the nations that are most exposed to the impacts of climate change. Due to the fact that the country spans over various ecological and climatic zones, the level of vulnerability differs from the north to the south.

Those are the consequences of climate change in recent years following the climate forecast and agro-meteorology bulletins for Vietnam provided by IMHEN (Vietnam Institute of Meteorology, Hydrology, and Climate Change).

**Northern Midlands and Mountain region:** rice is the primary crop, followed by fruit trees and perennial industrial plants. Despite the average annual temperature rising, the region has experienced longer and more severe bouts of severe cold and damaging cold events.

**Red River Delta:** the primary crop is rice followed by perennial fruit trees. Similar to other deltas in the tropical region, this area frequently experiences floods, landslides, coastal erosion, water scarcity, and saltwater intrusion during the dry season.

**North Central Region and Central Coastal areas:** rice is the primary crop, followed by maize, cassava, fruit trees, and industrial plants. The region frequently experiences heavy

rainfall in a short period, resulting in local flooding and landslides. Additionally, droughts have become more prevalent during the dry season.

**Central Highlands**: perennial industrial plants are the primary crop with rice, followed by maize and cassava. The region is known for experiencing extreme weather conditions and natural calamities such as floods and flash floods during the rainy season, and droughts and extreme heat during the dry season.

**Mekong River Delta** is recognized as one of the three deltas worldwide that are most susceptible to the effects of climate change and rising sea levels. The primary crop in this region is rice followed by fruit trees. During the Winter-Spring rice crops, especially in El Niño years, the region is at a high risk of drought and saltwater intrusion, which can be severe.

### iv1) Status of the agricultural sector in the period of climate change

According to the General Department of Natural Disaster Prevention and Control (2019), agriculture is the industry most heavily affected by the consequences of climate change with a loss rate of up to 64.8% and is expected to increase significantly when now. Agriculture in Vietnam still depends too much on the natural environment, and there are no centralized action plans to solve the problems caused by climate change affecting agricultural farming.

In Vietnam, over the past 50 years, the average temperature has increased by about 2-3 degrees Celsius and the sea level has increased by about 20 cm. Estimates suggest that by the end of the 21st century, the average temperature in Vietnam may rise by 2.3 degrees Celsius in comparison to the average temperature during the period of 1980-1999. Additionally, the country's annual rainfall is predicted to increase by approximately 5%, and the sea level may rise by as much as 75 centimeters. The impacts of climate change such as sea level, floods, drought, saltwater intrusion, severe weather.

### iv2) Consequences of climate change on agriculture

Firstly, floods and sea water will destroy arable land in agriculture. If sea level is increased by 1m without effective preventive measures, about 40% of the Mekong Delta area (MRD), 11% of the Red River Delta (RRD) and 3% of the coastal area of other provinces will be flooded. Along with that, nearly 50% of the agricultural land in the Mekong Delta will be flooded and cannot be cultivated. According to the World Resources Institute's analysis on the impact of floods on GDP, Vietnam ranked 4th out of 164 countries surveyed in terms of the economic damage caused by flooding, causing 2.3% damage of GDP per year. According to the Ministry of Natural Resources and Environment, the sea level is expected to rise to 47cm by 2080.

In addition, saline intrusion in coastal areas seriously affects the agricultural sector. A significant portion of arable land in the Red River Delta and the Mekong Delta will be saline because these two deltas are lowland areas relative to sea level. Saltwater intrusion reduces the area of arable land, from which the land use system can be reduced from 3-4 times/year to 1-1.5 times/year. If the sea level is increased by 1m, about 1.77 million

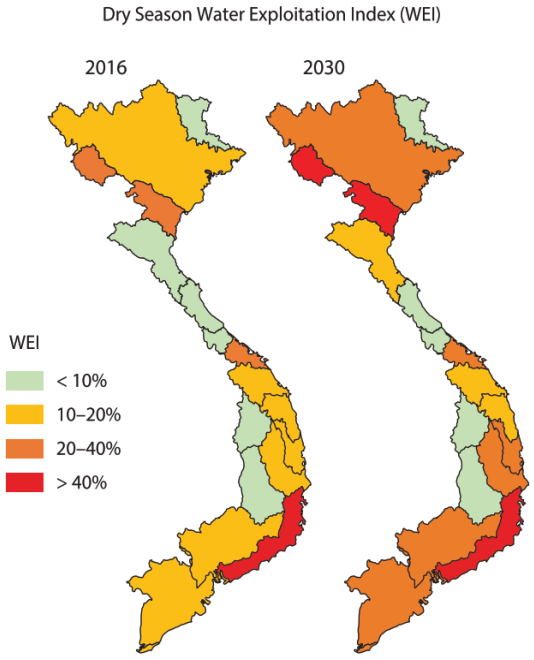
hectares of land will become saline, accounting for 45% of the land area in the Mekong Delta and an estimated 85% of the people in the Mekong Delta need agricultural support.

According to research results of the Institute of Environment (Ministry of Agriculture and Agricultural Development), climate change reduces the productivity of some key crops. Specifically, rice yield will decrease by 0.41 tons/ha in 2030 and 0.72 tons in 2050. Maize yield is likely to decrease by 0.44 tons/ha in 2030 and 0.78 tons in 2050. It is forecasted that by 2080, the Mekong Delta is at risk of being flooded with 89,473 ha, equivalent to about 7.6 million tons of rice/year if the sea level rises by 100 cm. At that time, Vietnam faced the risk of not ensuring food security, increasing poverty rate, etc.

Secondly, the temperature increase due to the impact of the greenhouse effect drought will affect the distribution of trees, as well as the crop yield, which will decrease sharply, affecting the fertility of the land. According to forecasts, if no timely response measures are taken, the yield of spring rice in the Red River Delta may decrease by 3.7% in 2020 and up to 16.5% in 2070; the yield of winter rice will decrease by 1% in 2020 and decrease by 5% in 2070. Loss of arable land in agriculture and crop decline will pose significant challenges to farmers' lives. rice exports and national food security for a country with an important agricultural sector in the national economy like Vietnam (agriculture employs 52.6% of the labor force and accounts for 20% of GDP).

*Table 7. Water stress levels in the dry season in 2016 and 2030, excluding hydropower storage Basin*

| Basin | 2016 | 2030 |
|---|---|---|
| Bang Giang - Ky Cung | 1% | 2% |
| Red - Thai Binh | 19% | 27% |
| Ma | 35% | 44% |
| Ca | 9% | 12% |
| Gianh | 2% | 3% |
| Thach Han | 5% | 6% |
| Huong | 23% | 28% |
| Thu Bon & Vu Gia | 11% | 15% |
| Tra Khuc | 13% | 16% |
| Kone | 19% | 23% |
| Ba | 19% | 24% |
| Dong Nai | 19% | 28% |
| SERC | 41% | 58% |
| Sesan | 1% | 1% |
| SrePok | 5% | 6% |
| Mekong | 19% | 22% |




*Source: 2030 WRG 2017 - Notes: green=no stress, amber=low stress, brown=stressed, and red=severely stressed*

The water stress level of Vietnam is worse and worse. In 2016, three important rivers Red–Thai Binh, Mekong, and Dong Nai - which are the main water source for 2 important agriculture zones in Vietnam - faced with important water stress level situation. This phenomenon is more severe, especially for the SERC basin. Economic development and

the increasing of the population will make this situation even worse in 2030. Free stress water zone in 2016 will become stress water zone.

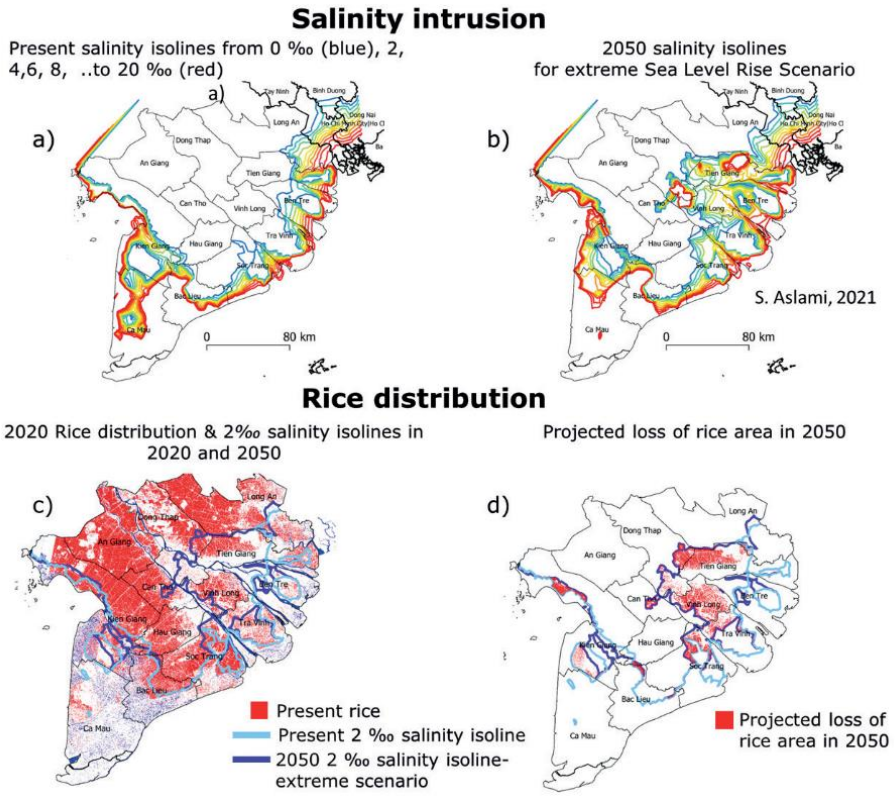
### *Mekong Delta*

Mekong Delta: In the dry season, the coastal regions of the Mekong River Delta experience surface water salinity caused by saline intrusions. This natural occurrence results from the interaction between river and oceanic forces within a specific geographical area, but it is exacerbated by human activities in the delta and rising sea levels due to climate change.

Recent studies have indicated that the primary factor behind the rise in saltwater intrusion in the Mekong Delta is the alteration of riverbed levels resulting from the lack of sedimentation due to upstream dam construction and excessive sand extraction. As a consequence, during the dry season, soil and water salinization pose a significant challenge to crop cultivation in the coastal areas of the Mekong Delta.

The majority of rice types currently cultivated are vulnerable to harm when the water salinity level surpasses 4‰. If the salinity level exceeds 2‰, rice yields may decrease by 20-45% if the salt stress happens during the tillering phase, and by 10-40% if the salt stress occurs during the heading period.

*Figure 19. Present and projected Salinity intrusion and Rice cultivation area*




**Notes of Figure 19:** Impact of salinity intrusion on rice area.

a) Contour lines of the present time surface water salinity from 0 ‰ the most inland to 2, 4, 6, ...20 ‰

b) Contour lines from the projection for 2050 under scenarios RCP8.5 (river discharge), with extreme scenarios for subsidence, riverbed level changes (RB3) and sea level rise (+60 cm)

c) Winter-Spring rice map overlaid with contour lines for 2 ‰ salinity for the present time (light blue) and for 2050 (dark blue)

d) Rice area (in red) which will be less suitable for rice cultivation in 2050.

The figure shows the contour lines of saline water intrusions for the present [Figure a] and as projected in 2050 [Figure b], according to the worst-case scenario.

The diagram c) illustrates the current Winter-Spring rice production area superimposed with 2‰ contour lines for both the present time (represented by the light blue curve) and the projected values for 2050 (shown by the dark blue curve). The figure d) also highlights the fraction of rice-growing regions that might not be suitable for cultivation in 2050 in this extreme scenario (where water salinity exceeds 2‰). As per the figure, about 143,000 hectares (or 10.5% of the 1.36 million hectares of rice-harvested land in 2020) may not be appropriate for rice cultivation by 2050, primarily in the provinces of Tien Giang, Vinh Long, Tra Vinh, and Soc Trang.

In the Ministry of Agriculture and Rural Development action plan to respond to climate change in the period of 2008-2020, mitigation measures included:

1. Development of large-scale salinity management structures (i.e. dykes, sluices and reservoirs)
2. Development of small-scale irrigation infrastructures (i.e. canals, sluices, pumping stations)
3. Development of adaptive farming technologies (i.e. crop varieties, farming techniques)

For Dang Kieu Nhan and other authors.(2012) from Can Tho University:

- In areas with salinity levels of up to 4‰, adaptive varieties and farming techniques could help farmers maintain their rice production and income;
- For salinity levels exceeding 4‰, the adaptation strategy could involve the conversion of rice culture to rice - shrimp rotational farming to improve farmers' incomes and livelihoods.

However, since riverbed level incision driven by sediment starvation is currently the main driver of enhanced saline water intrusion and will remain the greatest threat at least for the first half of the century, the most efficient mitigation measure remains the control of sand mining.

*Map 4. 2050 projections: Groundwater extraction scenario*

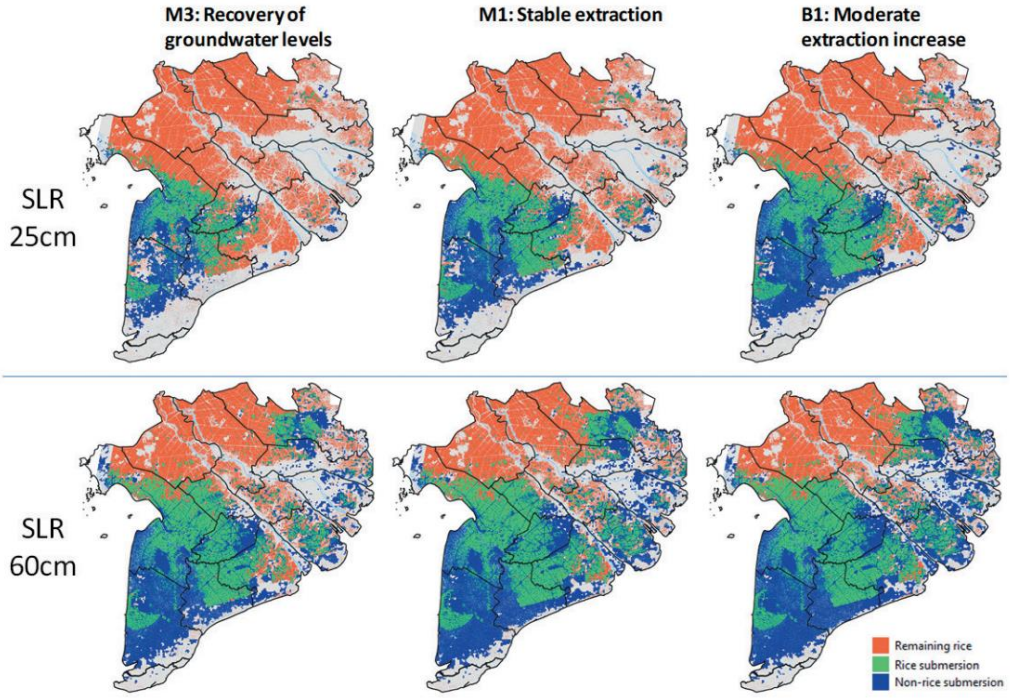



*Table 8. Rice area by submersion (in thousand hectares and in %)*

| | | Extraction scenario | | |
|---|---|---|---|---|
| | | M3 | M1 | B1 |
| SRL scenario | 25 cm | 3 871 (22%) | 5 288 (30%) | 5 995 (34%) |
| | 60 cm | 8 666 (49%) | 9 745 (55%) | 10 254 (58%) |

Above are the maps of the 2016–2020 rice area that would be permanently inundated in 2050 under SLR of 25 cm (RCP8.5, top panels) and 60 cm (extreme, low probability) (bottom panels), along with 3 groundwater extraction scenarios, respectively in left, middle and right columns: in M3, recovery of groundwater levels (gradual reduction of extracted volume), M1: the same groundwater extraction (stabilizing extraction, no increase after 2020), and B1: moderate increase of extraction at a steady annual increase: 2% of the 2018 volume. Red color represents non-submerged rice land, green color submerged rice land, and blue color submerged non-rice land.

The inserted table shows the extent (in thousand ha) and percentage of rice area lost by flooding, as compared to the rice extent in 2016–2020.

To summarize, the Mekong Delta is facing significant challenges to rice cultivation due to salinity intrusion and rising sea levels. The eastern provinces of Vinh Long, Tien Giang, Soc Trang, and Tra Vinh could lose nearly 10% of rice-growing areas during the dry season due to saline intrusion alone. If areas fall below sea level, the loss could be 22 to 34%, up to 58% in extreme sea level rise scenarios. Additionally, temperature, drought, and salinity could

lead to a 35-45% reduction in rice yield for non-submerged areas. Without adaptation, up to 34% of present rice fields could fall below sea level by 2050 with a 25 cm sea level rise. Even with adaptation measures to avoid inundation, saline water intrusion could still decrease the area suitable for rice cultivation by 10%. Moreover, the rice yield is expected to decrease by about 10% compared to 2020 for the remaining rice land.

### *Red River Delta*

*Map 5. 2050 projections of rice cultivation area under permanent inundation caused by different projected SLR in the Red River delta*


*Table 9. Loss of rice field extend by submersion (in thousand hectares and in %)*

| Province | Rice planted areas (thousand ha) | Rice areas lost (%) for 3 SLR scenarios | | |
|---|---|---|---|---|
| | | 30 cm | 60 cm | 90 cm |
| Quang Ninh | 21 | 49% | 55% | 58% |
| Thai Binh | 82 | 11% | 23% | 66% |
| Hai Phong | 38 | 3% | 8% | 53% |
| Nam Dinh | 76 | 8% | 29% | 68% |
| Ninh Binh | 42 | 1% | 7% | 21% |

Those are the maps of the 2016-2020 rice area generated by Sentinel-1 satellite data that would fall below sea level for sea level rise scenarios of 30 cm, 60 cm and 90 cm in the Red River Delta. In blue, the rice area that would be submerged, in red, the non-submerged rice land. The inserted table shows the loss of rice field extent by submersion in the impacted provinces (in thousand ha, and in percentage) for SLR of 30 cm, 60 cm and 90 cm for the 4 most important rice provinces in the Red River Delta.

To evaluate the potential impact of sea level rise (SLR) on the Red River Delta and the rice-growing area in central Vietnam, flood maps provided by the Vietnamese Ministry of Natural Resources and Environment (MoNRE) were used. The maps were created based on three SLR scenarios: 30 cm, 60 cm, and 90 cm. The submerged rice area and the

percentage of rice area that would be affected were assessed, and the results are shown in Figure 4.9 for the five impacted provinces. The two most significant rice-producing provinces, Thai Binh and Nam Dinh, are anticipated to be affected by 10% for 30 cm SLR, 23-29% for 60 cm SLR, and 66-68% for 90 cm SLR.

In summary, a sea level rise of 30 cm is projected to impact approximately 20,000 hectares of rice-growing land, while 60 cm of SLR could affect about 55,000 hectares. The loss of rice area is not as significant as that in the Mekong Delta, but it's worth noting that subsidence was not factored in. Additionally, the impact of saltwater intrusion also needs to be considered.

### *Central provinces*

*Map 6. 2050 projections of rice cultivation area under permanent inundation caused by different projected SLR in Central coastal province*

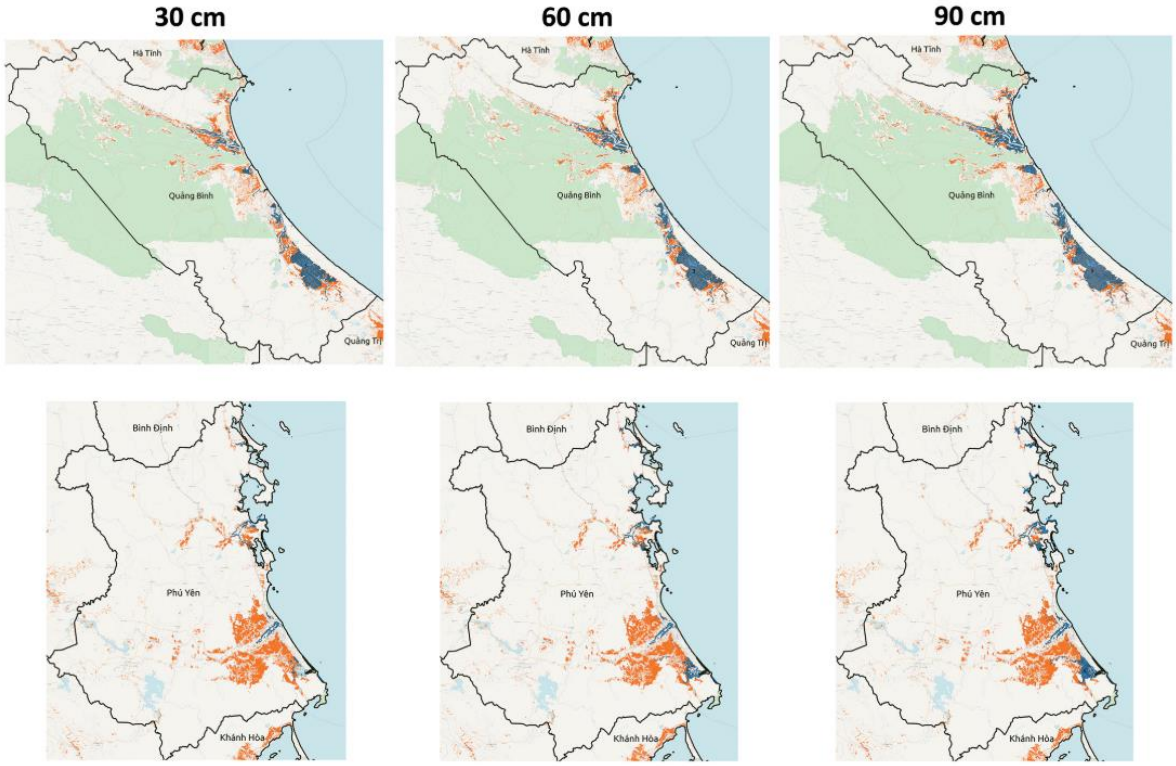



*Table 10. Loss of rice field extend by submersion (in thousand hectares and in %)*

| Province | Rice planted areas (thousand ha) | Rice areas lost (%) for 3 SLR scenarios | | |
|---|---|---|---|---|
| | | 30 cm | 60 cm | 90 cm |
| Quang Binh | 30 | 21% | 33% | 58% |
| Phu Yen | 25.3 | 0% | 0.7% | 1.1% |
| Ninh Thuan | 16 | 0% | 0% | 0.2% |

Above are the Maps of the 2020 rice growing area generated by Sentinel-1 satellite data that would be submerged by flood water for sea level rice of 30 cm, 60 cm and 90 cm in Quang Binh (top panels) and Phu Yen (bottom panels) in the center of Viet Nam. In blue, the rice area that would be submerged, and in red, the non-submerged rice land. The inserted table indicates the present rice growing area (in thousand hectares), and the percentage of submerged rice land for SLR of 30 cm, 60 cm and 90 cm for the 3 impacted provinces in the Centre Coastal provinces.

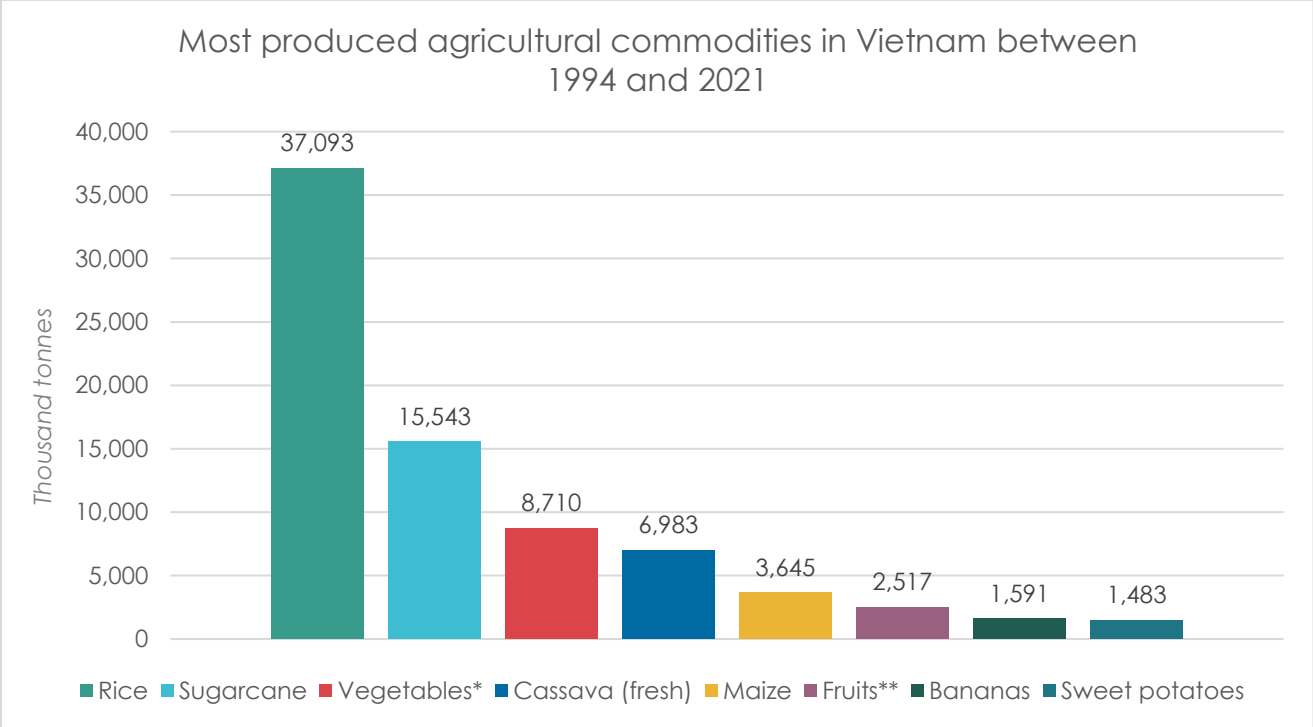
In the central provinces of Vietnam, the percentage of current rice cultivation areas that would be affected by sea level rise is lower compared to the Red River Delta. This figure displays the maps of the two affected provinces in central Vietnam, Quang Binh and Phu Yen, due to SLR. Quang Binh will experience the most reduction in rice area, with expected losses of around 21%, 33%, and 58%, respectively, for SLR scenarios of 30 cm, 60 cm, and 90 cm, as indicated in the table.

| HIGHLIGHTS | • **Mekong Delta:** The Mekong Delta, anticipated saline intrusion, and possible persistent flooding brought on by relative sea level rise significantly restrict the amount of land suitable for rice farming. The eastern provinces of Vinh Long, Tien Giang, Soc Trang, and Tra Vinh will be most impacted by this phenomenon.<br>• **Red River Delta:** The loss in the rice area is much less important than in the Mekong Delta. The two most important rice provinces affected are Thai Binh and Nam Dinh.<br>• **Central provinces:** The percentage of current rice cultivation areas that would be affected by sea level rise is lower compared to the Red River Delta. Quang Binh will experience the most reduction in rice area, follow by Phu Yen and Ninh Thuan. |
|---|---|

## 2. Agriculture in Vietnam - b) Crops - i) Areas and production

This section presents an overview of the main agricultural products of Vietnam, the sizes of planted areas, the different yields, and regions of cultivation.

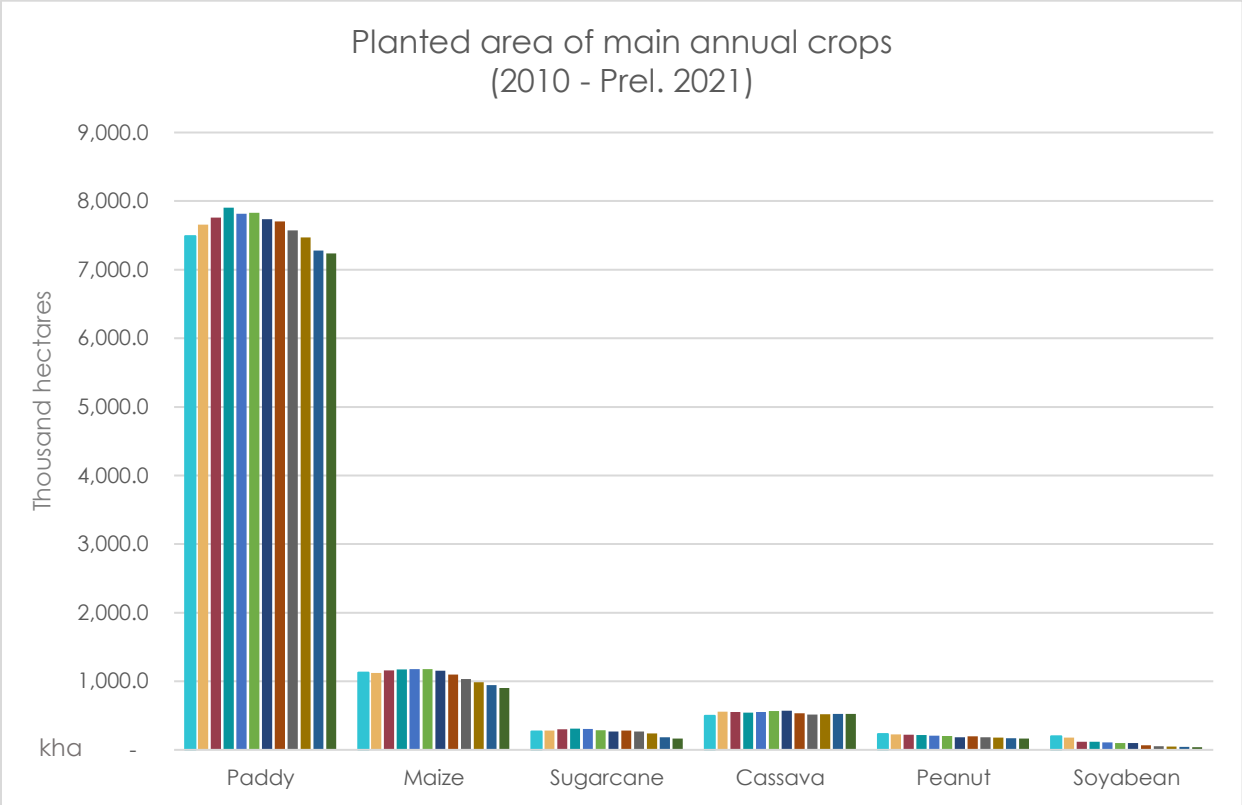
*Figure 20. Most produced commodity in Vietnam between 1994 and 2021*




*Source: FAO Crop and livestock products - *Other than cassava, maize and sweet potatoes - **Other than bananas*

Over the last 30 years, rice has indisputably remained the dominant product of Vietnam's agricultural sector, followed by sugarcane and other vegetable. Paddy production volume is respectively 2.3 times and 5.3 times higher than the volume of sugarcane and fresh cassava.

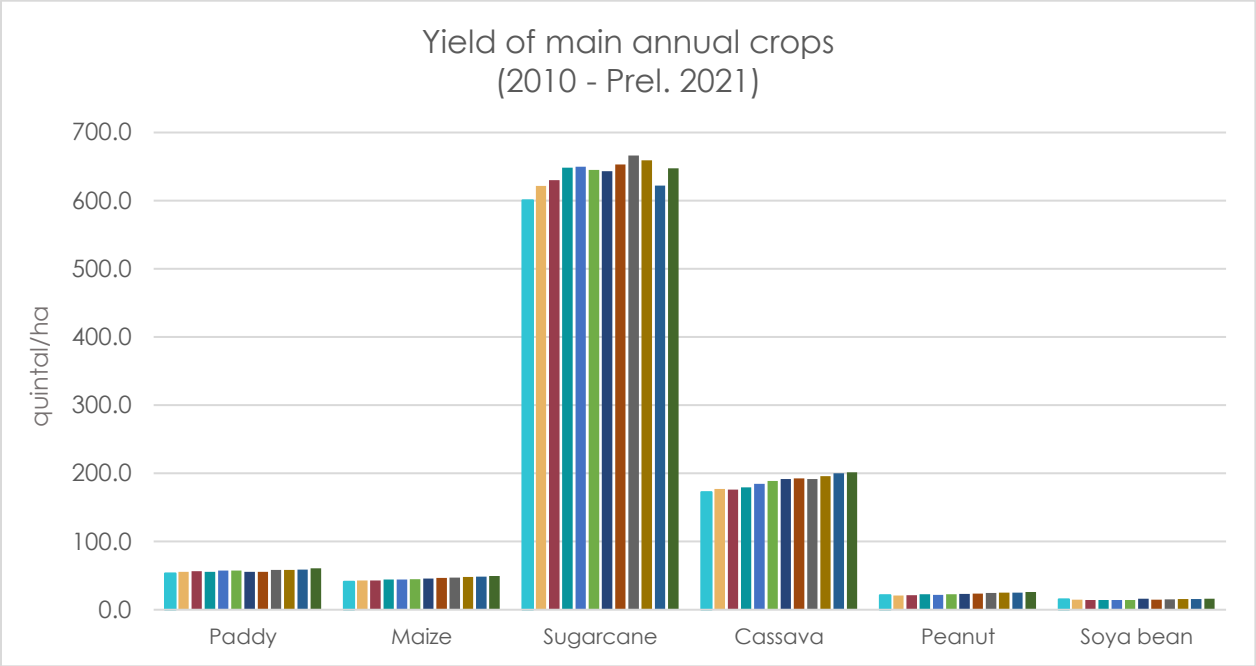
*Figure 21. Planted area of main annual crops (2010 - Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

Overall, paddy remains by far the dominant planted crop in Vietnam. Paddy's planted area is 7 times higher than the second most planted area (maize) and the third (cassava). The planted area of three remaining crops is not significant.

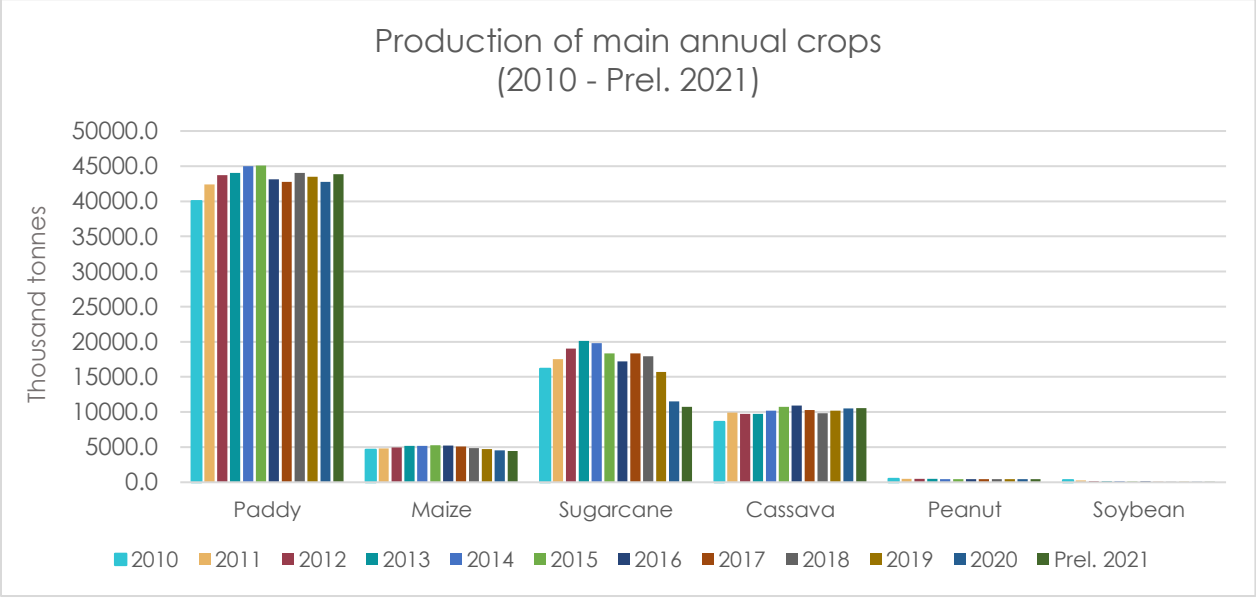
*Figure 22. Yield of main annual crops (2010 - Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

From 2010 to 2021, sugarcane has consistently maintained the highest crop yield, which is three times higher than the second-highest crop, cassava. Generally, the yields of the main crops have shown an upward trend. However, soybean stands out as the notable exception, with a stagnating yield over the last decade.

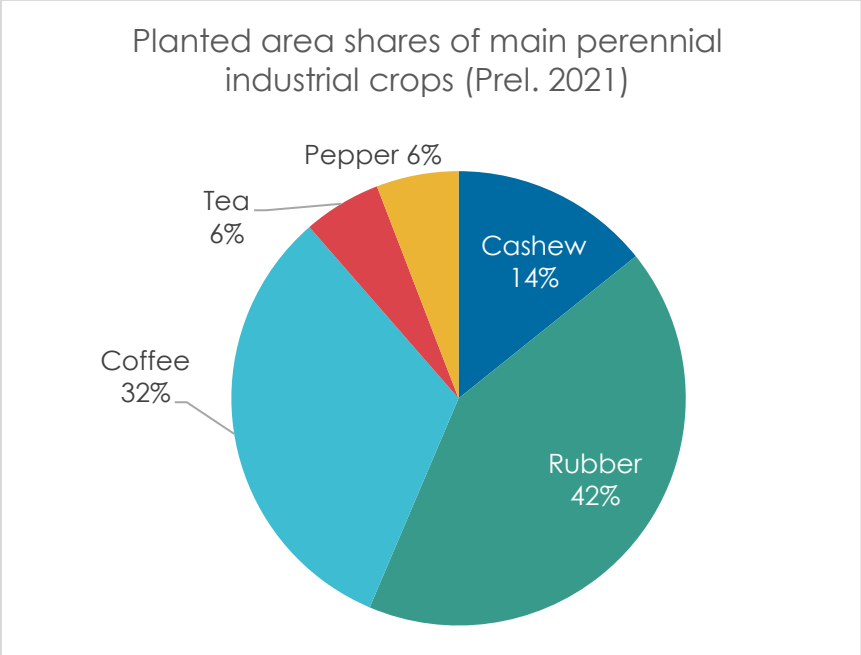
*Figure 23. Production of main annual crops (2010 - Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

Paddy overwhelmingly remains the main production crop in Vietnam. Paddy production is 2.25 and 4.5 times higher than sugarcane and cassava respectively. Maize is ranked 3rd with a volume being 9 times lesser than paddy.

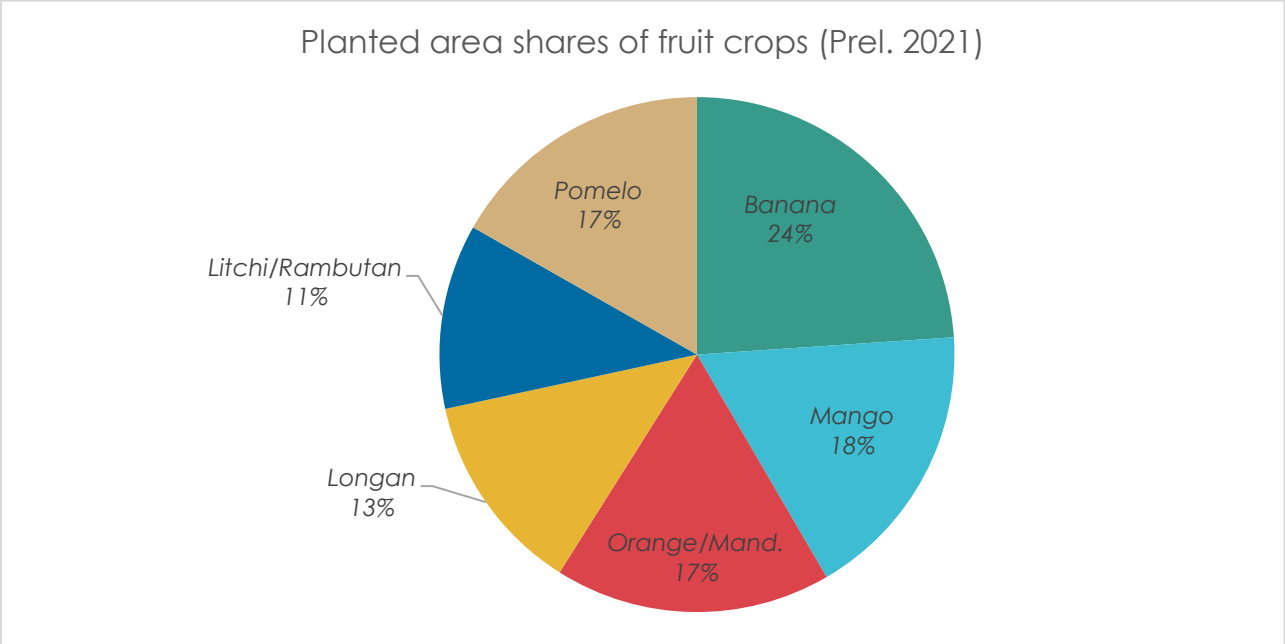
*Figure 24. Planted area shares of main perennial crops (Prel. 2021)*




In 2021, rubber is the dominant perennial industrial crop, accounting for nearly half (42%) of the overall planted area, followed by coffee with 32%. The 3rd belongs to cashew with 14%. Tea and pepper have modest planted percentage, only 6%.

*Source: GSO – Statistical Yearbook of Vietnam 2021*

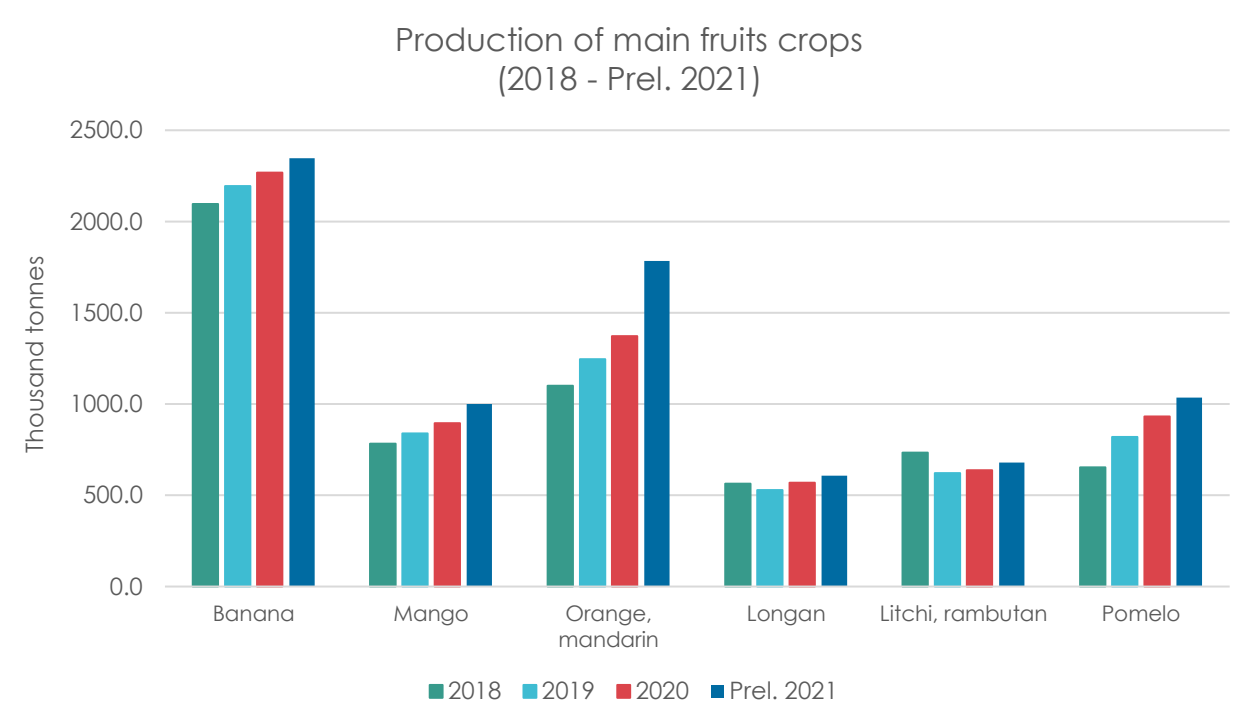
*Figure 25. Planted area shares of fruit crops (Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

This same year, regarding fruit crops, banana represented the dominant planted area (24%), followed by mango (18%), orange/mandarin and pomelo with 17%. Litchi/ rambutan and longan have limited planted area with around 10% of total each.

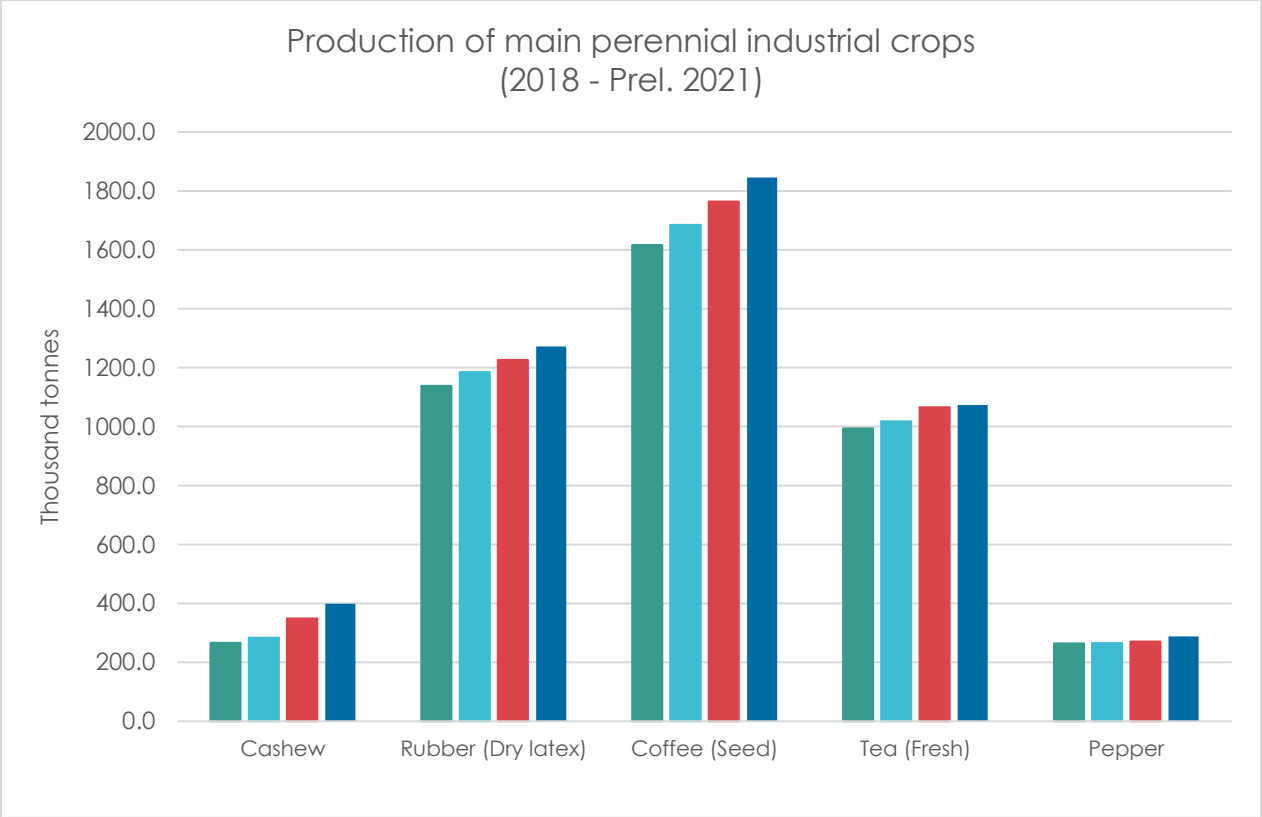
*Figure 26. Production of main fruits crops (2018 – Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

Overall, the fruit crops group experience a gradual increase in production quantities. Banana experiences the highest volume with 2,250,000 tons. Orange, mandarin experience a big increase: the volume in 2021 is 2.36 times higher than in 2015. The remaining crops have the same volume, approximately 750,000 tons.

*Figure 27. Production of main perennial industrial crops (2018 – Prel. 2021)*

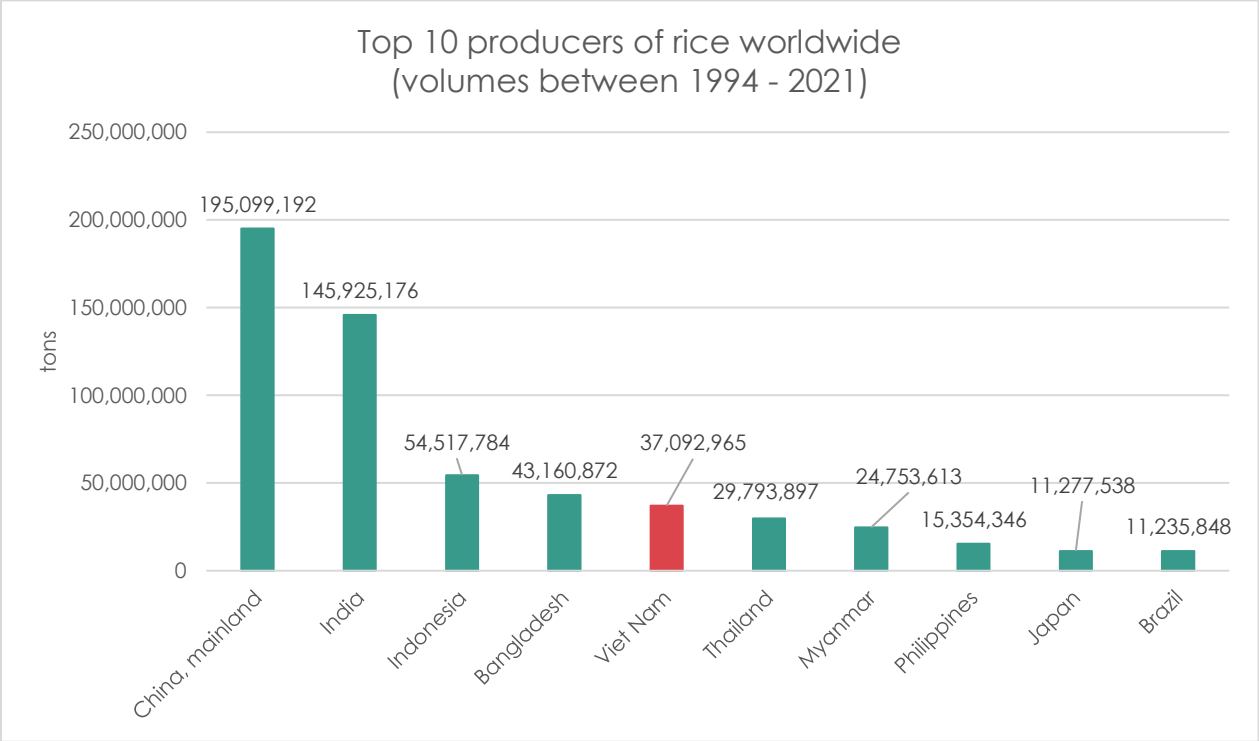



*Source: GSO – Statistical Yearbook of Vietnam 2021*

Overall, the perennial industrial crops experience a gradual increase in production quantities. Coffee (seed) experiences the highest volume with 1,800,000 tons, followed by rubber and tea with approximately 110,000 tons. The productions of cashew and pepper remains limited in volume, around 300,000 tons.

## Paddy (Rice)

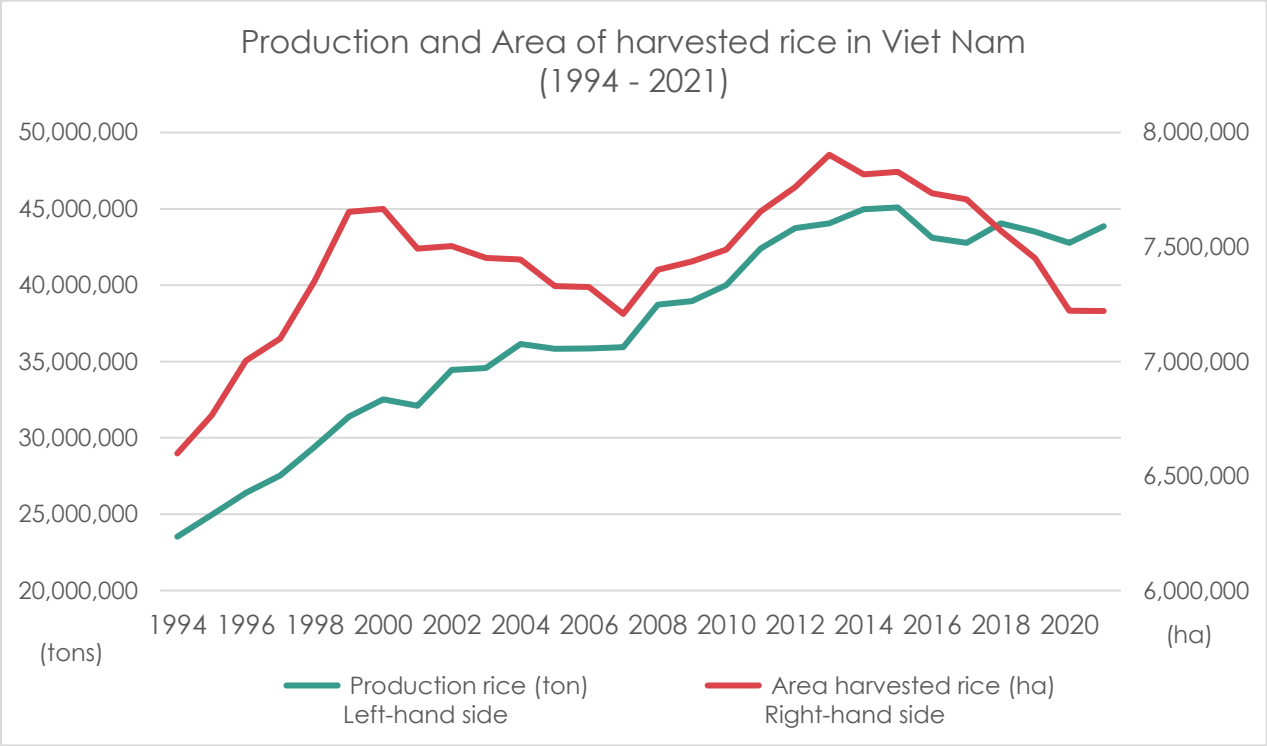
*Figure 28. Top 10 producers of rice worldwide (volumes between 1994 – 2021)*




*Source: FAO_Crop and livestock products*

According to FAO, looking at the global production of rice over the last 30 years, Vietnam is ranked as the 5th largest producer, after China, India, Indonesia and Bangladesh.

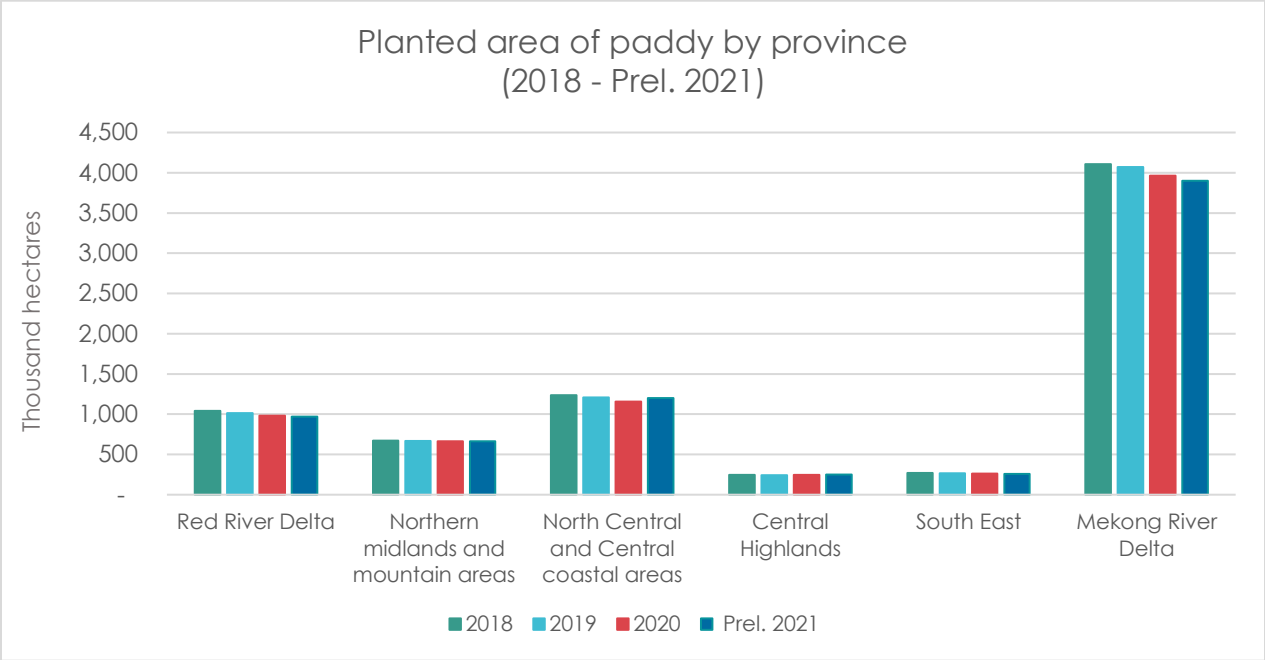
*Figure 29. Production and Area of harvested rice in Vietnam (2010 – 2021)*




*Source: FAO - Crop and livestock products*

Over this period (1994 - 2020), both Vietnam's rice area and rice production have overall increased, going from 6.6 million hectares and 23.5 million tons in 1994 to 7.2 million hectares and 44 million tons in 2018. In 2018, the rice area was more than 1.09 times larger, the rice production was more than 2 times, and the rice output was 1.8 times higher than in 1994. After 26 years, the rice production increased by nearly 28 million tons, an average of nearly 0.78 million tons per year. From 2018, the area harvested has started decreasing but the rice production has remained on an upward trend, thanks to the high yield volume.

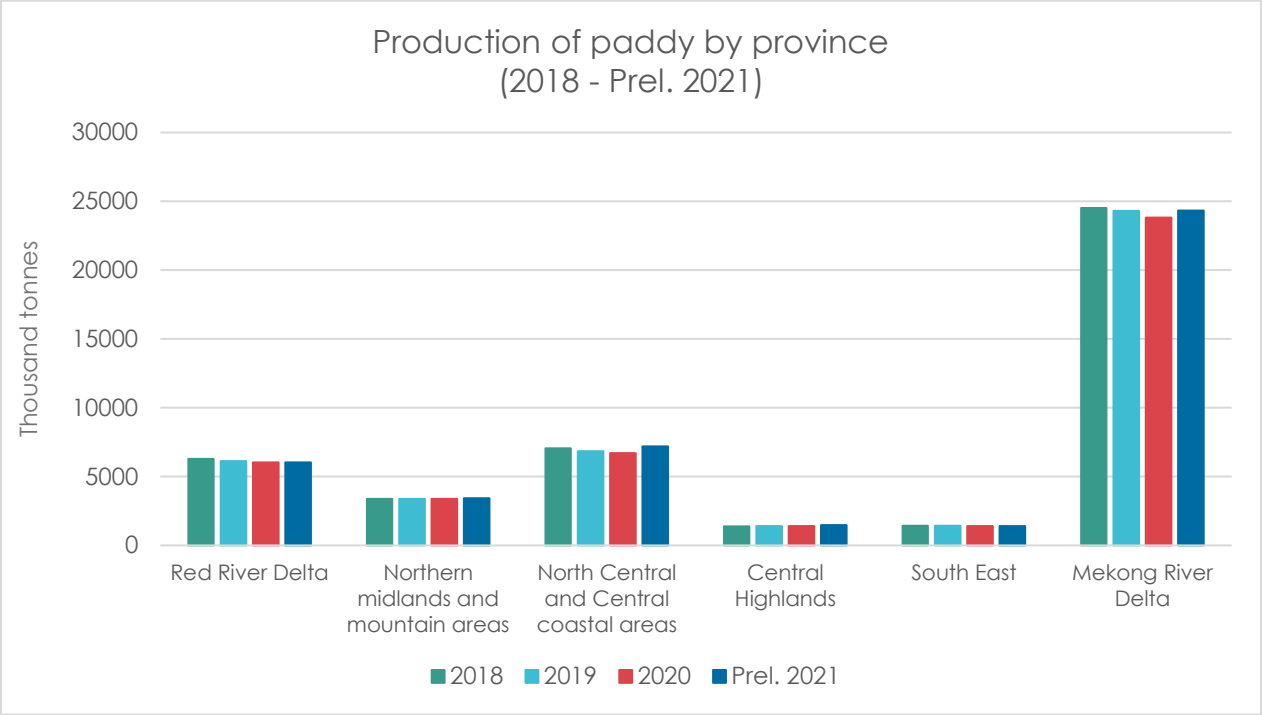
*Figure 30. Planted area of paddy by province (2018 – Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

Mekong Delta is by far the most important region of Vietnam in terms of rice planted area: it is 4 times higher than that of the North Central and Central coastal areas, the second important rice production region.

*Figure 31. Production of paddy by province (2018 – Prel. 2021)*

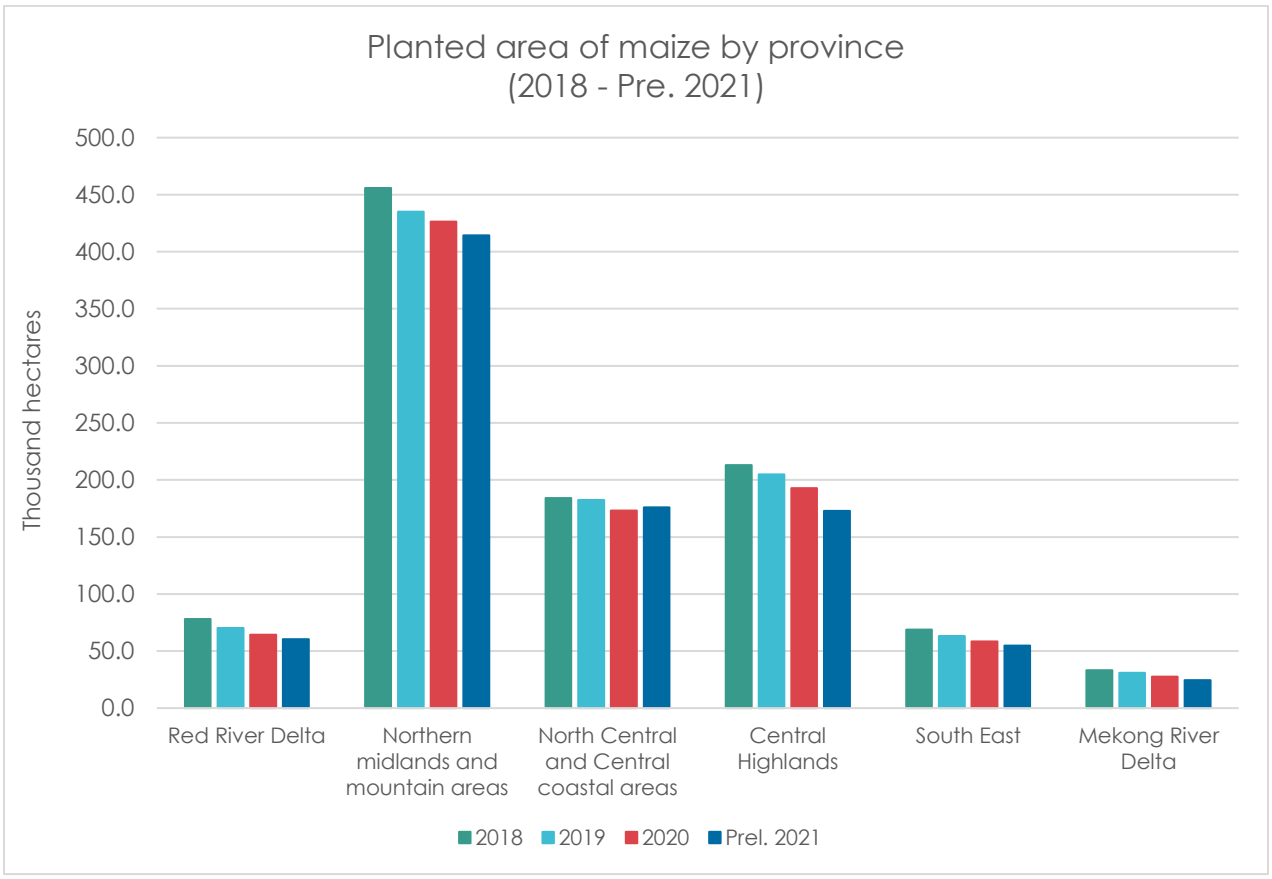



*Source: GSO – Statistical Yearbook of Vietnam 2021*

Logically, Mekong Delta thus remains the main contributor of Vietnam's rice production. From 2015 to 2021, this production has been in average 3.5 times higher than that of the North Central and Central coastal areas. In 2021, the country's rice production was of about 44 million tons, of which the Mekong River Delta provided 24 million tons, i.e. 54% of the national production.

## Maize (corn)

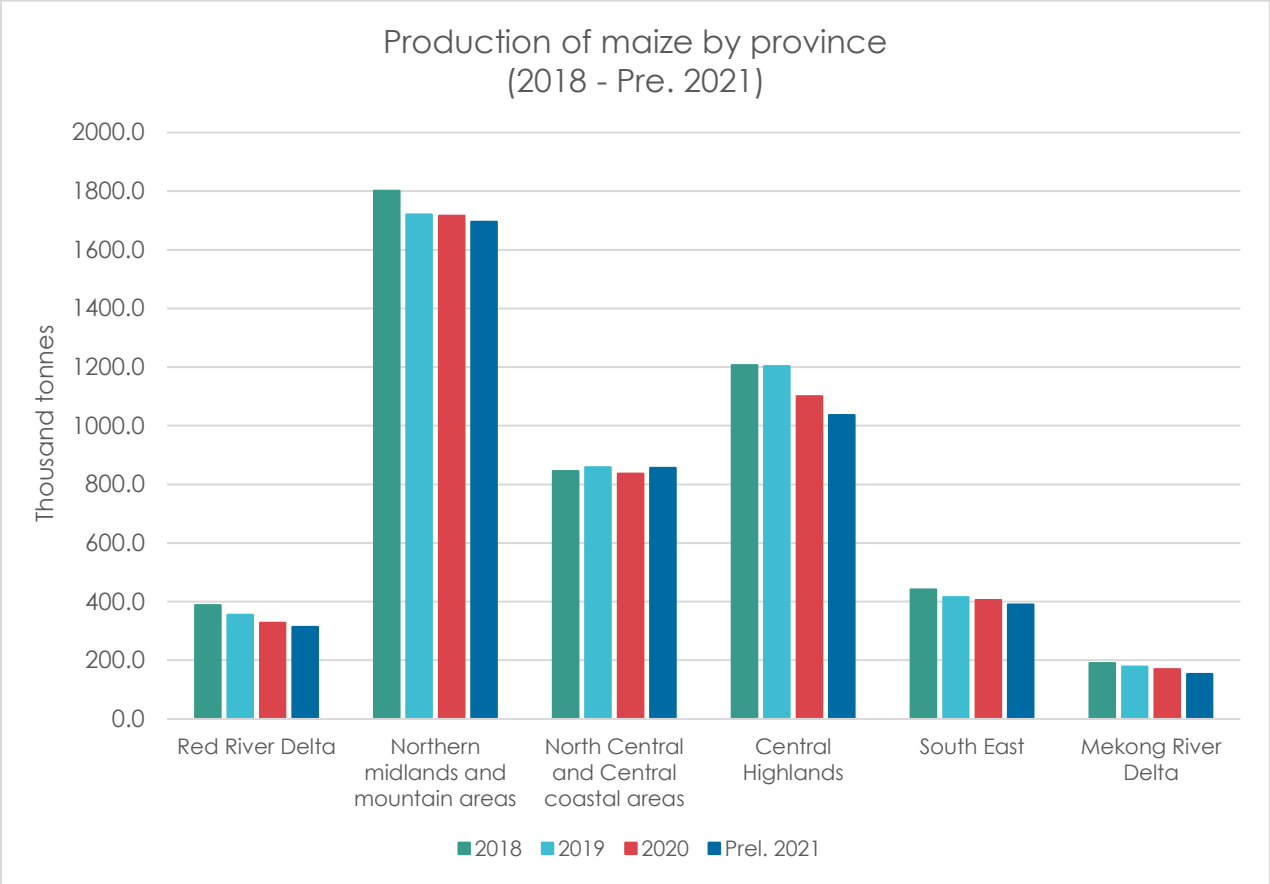
*Figure 32. Planted area of maize by province (2018 - Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

Northern midlands and mountain areas are the most planted areas for maize, with an average 425,000 thousand hectares of plantation between 2018 and 2021; 2.5 times higher than the 2nd and the 3rd most planted areas, respectively the Central Highlands, and the North Central and Central Coastal areas. Overall, there has been a downward trend in those areas, with a national total surface shrinking of around 10% between 2018 and 2021.

*Figure 33. Production of maize by province (2018 – Pre. 2021)*

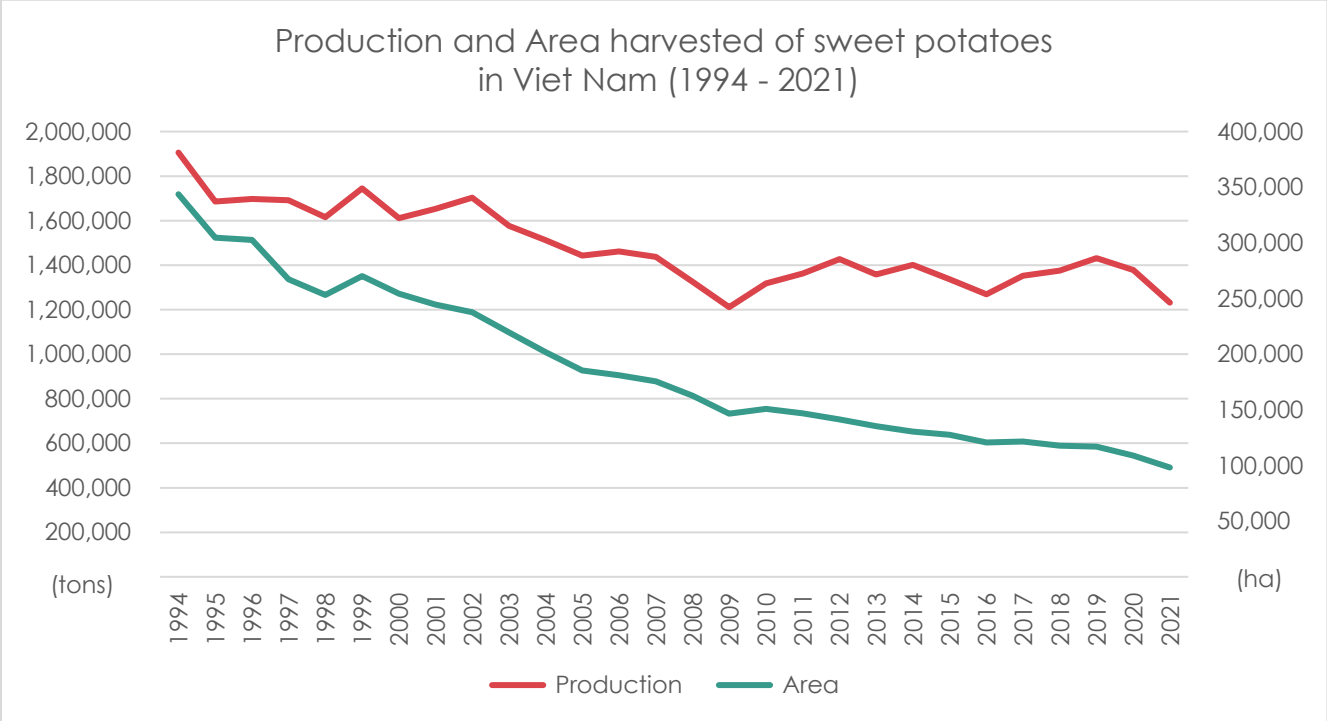



*Source: GSO – Statistical Yearbook of Vietnam 2021*

For maize production, Northern midlands and mountain areas are leading with 1.7 million tons in 2021; respectively 1.4 times and 2.1 times higher than the 2nd and the 3rd regions which are the Central Highlands, and the North Central and Central Coastal areas. There also, except for the latter areas, the production has followed the same trend as the planted area, shrinking in average of between 6% to 20% depending on the region.

## Sweet potatoes

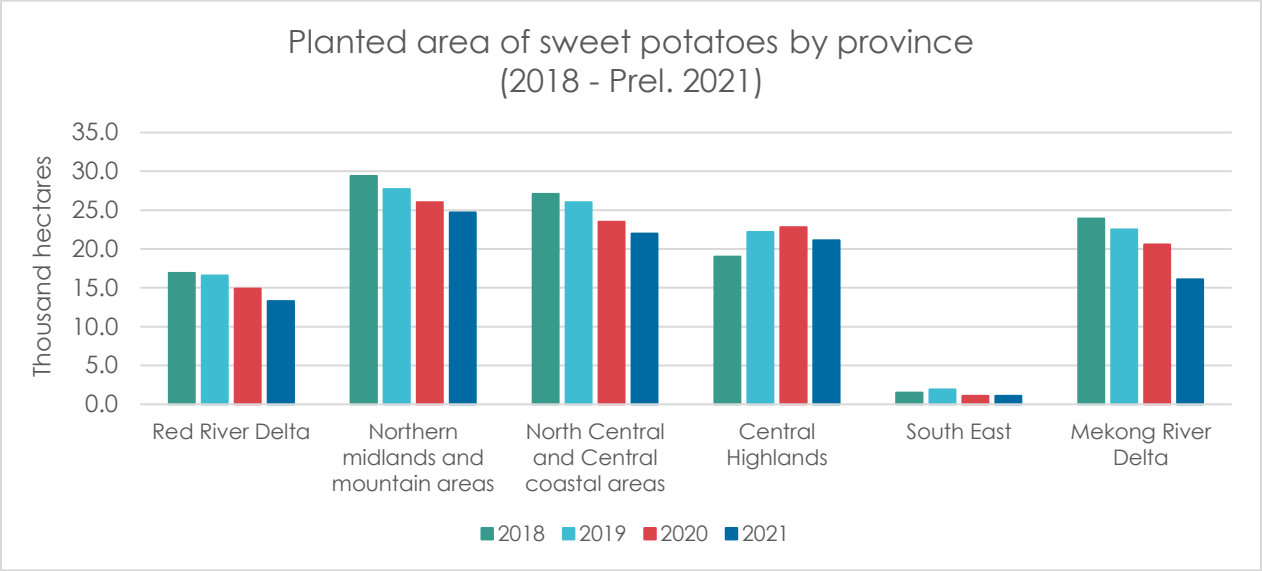
*Figure 34. Production and Area of harvested of sweet potatoes in Vietnam (1994 – 2021)*




*Source: FAO - Crop and livestock products*

Between 1994 and 2021, the planted area and production quantities of sweet potatoes have been consistently decreasing gradually. In 2021, planted area was 3.5 times lesser than in 1994 (98,193 ha versus 343,700 ha). Thanks to an increased productivity per hectare, the production in 2021 was only 1.5 times lesser than in 1994.

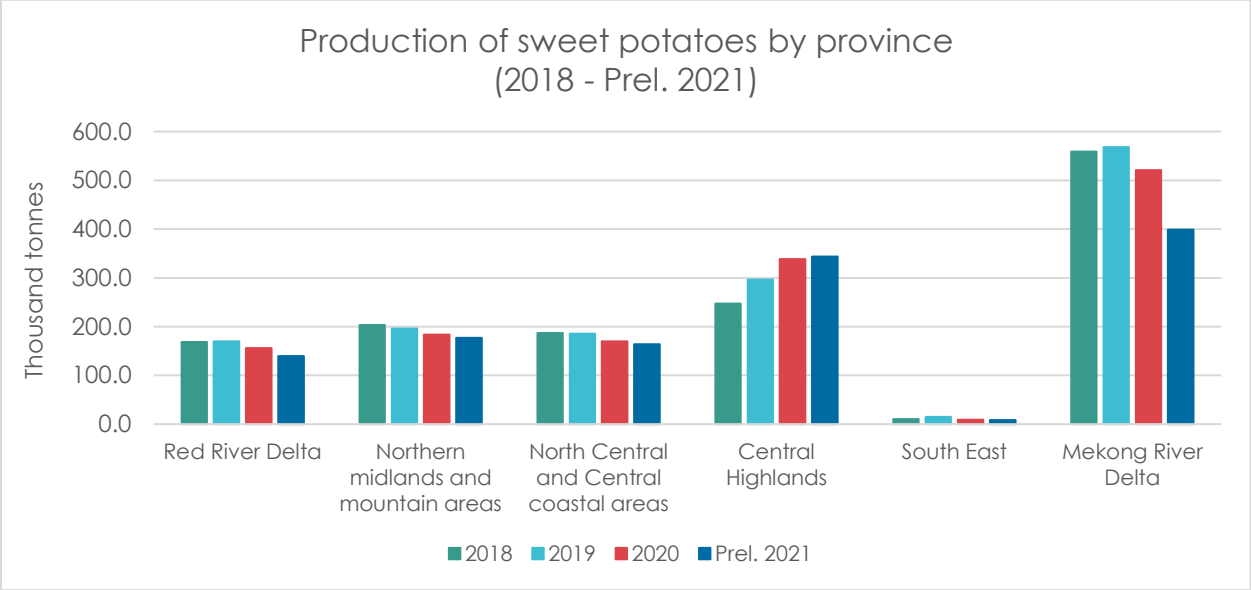
*Figure 35. Planted area of sweet potatoes by province (2018 – Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

Overall, except for the South East region which has only 1,100 planted hectares, the remaining 5 regions have approximately the same planted area , oscillating between which is varied from 20,000 to 30,000 ha.

*Figure 36. Production of sweet potatoes by province (2018 – Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

Overall, Mekong Delta and Central Highlands experienced the highest volume (in average 500,000 tons) followed by the Central Highlands with 280,000 tons).

The three remaining regions have the same volume around 200,000 tons. The South East region has a marginal production volume with only 10,000 tons.

## Cassava

*Table 11. Planted area of cassava by province (2015 – Prel. 2021)*
*Unit: thousand hectares*

| No | Years | 2015 | 2018 | 2019 | 2020 | Prel. 2021 |
|---|---|---|---|---|---|---|
| | **Whole country** | **567.9** | **513.0** | **519.0** | **524.7** | **524.5** |
| 1 | Hà Nội | 1.8 | 1.0 | 1.0 | 0.7 | 0.7 |
| 2 | Hà Giang | 4.6 | 5.1 | 5.1 | 5.0 | 5.0 |
| 3 | Cao Bằng | 4.0 | 2.7 | 2.8 | 2.2 | 2.9 |
| 4 | Bắc Kạn | 3.0 | 1.2 | 0.7 | 0.4 | 0.4 |
| 5 | Tuyên Quang | 4.6 | 3.3 | 2.6 | 2.3 | 2.1 |
| 6 | Lào Cai | 8.9 | 7.0 | 6.1 | 5.5 | 5.5 |
| 7 | Yên Bái | 15.8 | 10.6 | 9.8 | 8.7 | 8.7 |
| 8 | Thái Nguyên | 3.4 | 2.5 | 2.1 | 1.8 | 1.5 |
| 9 | Lạng Sơn | 4.5 | 2.1 | 1.6 | 1.1 | 1.0 |
| 10 | Bắc Giang | 5.0 | 3.0 | 2.7 | 2.2 | 1.5 |
| 11 | Phú Thọ | 8.3 | 6.9 | 6.5 | 5.8 | 5.6 |
| 12 | Điện Biên | 7.7 | 7.7 | 7.7 | 8.3 | 8.9 |
| 13 | Lai Châu | 4.4 | 5.1 | 5.1 | 5.7 | 6.3 |
| 14 | Sơn La | 31.2 | 34.8 | 37.0 | 36.9 | 41.9 |
| 15 | Hòa Bình | 11.7 | 9.2 | 8.7 | 8.7 | 8.0 |
| 16 | Thanh Hóa | 17.8 | 14.0 | 14.7 | 15.0 | 13.7 |
| 17 | Nghệ An | 17.4 | 13.6 | 14.7 | 13.5 | 13.7 |
| 18 | Hà Tĩnh | 4.1 | 3.0 | 2.9 | 2.7 | 2.5 |
| 19 | Quảng Bình | 6.3 | 6.0 | 6.2 | 6.3 | 6.6 |
| 20 | Quảng Trị | 12.7 | 11.9 | 11.7 | 12.0 | 12.4 |
| 21 | Thừa Thiên - Huế | 7.1 | 6.0 | 6.1 | 4.0 | 4.2 |
| 22 | Quảng Nam | 12.8 | 10.8 | 10.5 | 10.1 | 9.4 |
| 23 | Quảng Ngãi | 19.8 | 17.9 | 17.6 | 17.8 | 17.1 |
| 24 | Bình Định | 13.6 | 11.7 | 12.1 | 11.4 | 10.5 |
| 25 | Phú Yên | 23.0 | 24.7 | 25.9 | 29.5 | 29.7 |
| 26 | Khánh Hòa | 5.8 | 4.4 | 3.6 | 3.5 | 2.9 |
| 27 | Bình Thuận | 30.9 | 25.7 | 26.4 | 28.0 | 28.0 |
| 28 | Kon Tum | 39.5 | 38.4 | 38.2 | 39.3 | 38.8 |
| 29 | Gia Lai | 63.7 | 68.6 | 73.9 | 78.9 | 78.8 |
| 30 | Đắk Lắk | 35.2 | 38.7 | 41.0 | 44.2 | 45.0 |
| 31 | Đắk Nông | 18.4 | 12.2 | 9.5 | 8.2 | 6.2 |
| 32 | Bình Phước | 17.7 | 13.6 | 10.3 | 5.9 | 5.5 |
| 33 | Tây Ninh | 57.6 | 49.2 | 52.3 | 57.1 | 59.2 |
| 34 | Bình Dương | 4.8 | 4.5 | 4.3 | 4.1 | 4.1 |
| 35 | Đồng Nai | 15.8 | 15.3 | 15.2 | 16.5 | 16.8 |
| 36 | Bà Rịa - Vũng Tàu | 8.6 | 7.2 | 7.5 | 7.2 | 7.1 |
| 37 | Long An | 1.2 | 1.3 | 1.8 | 1.9 | 1.4 |
| 38 | Vĩnh Long | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 39 | An Giang | 0.7 | 0.8 | 0.8 | 0.4 | 0.7 |
| 40 | Kiên Giang | 0.9 | 0.6 | 0.4 | 0.4 | 0.3 |

*Source: GSO – Statistical Yearbook of Vietnam 2021 (section 206, p553)*

*Table 12. Production of cassava by province (2018 – Prel. 2021)*
*Unit: thousand tons*

| No | Years | 2015 | 2018 | 2019 | 2020 | *Prel. 2021* |
|---|---|---|---|---|---|---|
| | **Whole country** | **10740.2** | **9846.9** | **10174.9** | **10504.2** | **10565.6** |
| 1 | Hà Nội | 34.9 | 21.0 | 19.0 | 17.3 | 15.4 |
| 2 | Hà Giang | 36.3 | 47.6 | 45.6 | 44.7 | 45.9 |
| 3 | Cao Bằng | 59.9 | 37.2 | 44.5 | 33.7 | 44.8 |
| 4 | Bắc Kạn | 32.1 | 13.2 | 7.2 | 4.7 | 4.1 |
| 5 | Tuyên Quang | 59.8 | 44.4 | 35.4 | 31.8 | 28.3 |
| 6 | Lào Cai | 114.5 | 92.1 | 78.8 | 74.6 | 82.8 |
| 7 | Yên Bái | 305.8 | 205.4 | 187.8 | 171.6 | 171.4 |
| 8 | Thái Nguyên | 50.1 | 37.8 | 31.9 | 28.6 | 25.1 |
| 9 | Lạng Sơn | 45.2 | 20.4 | 15.3 | 10.7 | 9.9 |
| 10 | Bắc Giang | 71.7 | 45.2 | 40.3 | 33.1 | 23.0 |
| 11 | Phú Thọ | 115.1 | 101.3 | 98.3 | 87.7 | 86.8 |
| 12 | Điện Biên | 61.7 | 63.9 | 68.0 | 78.7 | 91.6 |
| 13 | Lai Châu | 36.9 | 42.7 | 43.5 | 50.1 | 56.0 |
| 14 | Sơn La | 359.5 | 412.6 | 433.3 | 432.4 | 487.4 |
| 15 | Hòa Bình | 149.6 | 121.3 | 119.6 | 124.3 | 119.8 |
| 16 | Thanh Hóa | 261.9 | 217.0 | 229.4 | 264.6 | 206.3 |
| 17 | Nghệ An | 384.8 | 305.2 | 324.3 | 315.8 | 322.1 |
| 18 | Hà Tĩnh | 65.3 | 42.3 | 43.3 | 41.9 | 37.0 |
| 19 | Quảng Bình | 114.6 | 109.3 | 111.4 | 111.6 | 120.5 |
| 20 | Quảng Trị | 208.8 | 201.0 | 199.9 | 201.5 | 199.1 |
| 21 | Thừa Thiên - Huế | 131.3 | 116.2 | 115.5 | 68.3 | 77.7 |
| 22 | Quảng Nam | 229.2 | 186.2 | 183.9 | 185.2 | 160.9 |
| 23 | Quảng Ngãi | 377.9 | 348.6 | 349.6 | 340.7 | 309.4 |
| 24 | Bình Định | 334.0 | 314.6 | 325.7 | 309.6 | 284.1 |
| 25 | Phú Yên | 414.1 | 526.4 | 569.1 | 664.4 | 671.9 |
| 26 | Khánh Hòa | 107.8 | 74.2 | 62.2 | 59.9 | 47.8 |
| 27 | Bình Thuận | 521.4 | 455.7 | 497.7 | 516.8 | 515.6 |
| 28 | Kon Tum | 592.0 | 579.6 | 601.8 | 589.9 | 584.9 |
| 29 | Gia Lai | 1180.9 | 1335.6 | 1488.3 | 1592.8 | 1588.2 |
| 30 | Đắk Lắk | 720.7 | 716.4 | 860.9 | 897.2 | 1089.6 |
| 31 | Đắk Nông | 291.2 | 209.8 | 164.0 | 143.5 | 108.4 |
| 32 | Bình Phước | 413.8 | 327.5 | 224.5 | 144.5 | 124.9 |
| 33 | Tây Ninh | 1868.3 | 1555.3 | 1671.5 | 1903.9 | 1926.4 |
| 34 | Bình Dương | 87.0 | 85.4 | 80.1 | 78.4 | 78.0 |
| 35 | Đồng Nai | 399.2 | 436.5 | 363.7 | 438.7 | 434.0 |
| 36 | Bà Rịa - Vũng Tàu | 218.7 | 175.8 | 185.4 | 186.9 | 188.1 |
| 37 | Long An | 17.9 | 24.0 | 32.7 | 26.4 | 19.4 |
| 38 | Vĩnh Long | 3.0 | 2.7 | 2.6 | 2.7 | 2.7 |
| 39 | An Giang | 15.4 | 18.6 | 19.9 | 9.0 | 15.4 |
| 40 | Kiên Giang | 25.8 | 16.0 | 12.4 | 7.9 | 6.8 |

*Source: GSO – Statistical Yearbook of Vietnam 2021 (section 207, p554)*

| HIGHLIGHTS | • Rice remains the main agricultural product in Vietnam. Sugarcane, cassava, rubber, pepper, cashew and fruits (banana, citruses) follow.<br>• Cultivated areas have decreased while production has increased due to improved cultivation methods and equipment, resulting in higher yields.<br>• Vietnam's regions are highly specialized, with for example the production of rice concentrated in the Mekong Delta, while the Maize is found primarily in the northern mountains. |
|---|---|

## 2. Agriculture in Vietnam – b) Crops – ii) Trade

### Paddy (Rice)

In 2022, Vietnam's main agricultural export product continued to be rice, reaching 7.11 million tons and $3.46 billion, up 13.8% in volume and 5.1% in value compared to 2021. The average export price of rice in 2022 was around $486.2/ton, a decrease of 7.7% compared to 2021. The Philippines remained the largest market for Vietnamese rice with a market share of 43.2%. Rice exports to this market in 2022 reached 3.21 million tons and $1.49 billion, up 30.7% in volume and 19% in value compared to 2021. That same year, the market with the highest growth rate in rice export value is Turkey (increasing 21.3 times), while the market with the sharpest decline in rice export value is Bangladesh (decreasing 51.2%).

Vietnam has been able to export its rice products to 28 different markets, with Asia remaining the primary market, representing over 60% of the total rice export value. Africa accounted for 19% of the market, while Europe accounted for 2%.

However, there has been a shift in the market structure, with a decreasing proportion of exports going to the Asian market and an increasing focus on the European and African markets. As a result, Vietnam has been placing greater emphasis on improving the quality of its rice exports and adjusting the export structure to include a higher proportion of high-value rice varieties while reducing the proportion of lower-grade rice products.

It is estimated that the rice export volume for January 2023 will reach a total of 400,000 tons with a value of around $203 million, down 20.9% in volume and 17.4% in value compared to the same period in 2022.

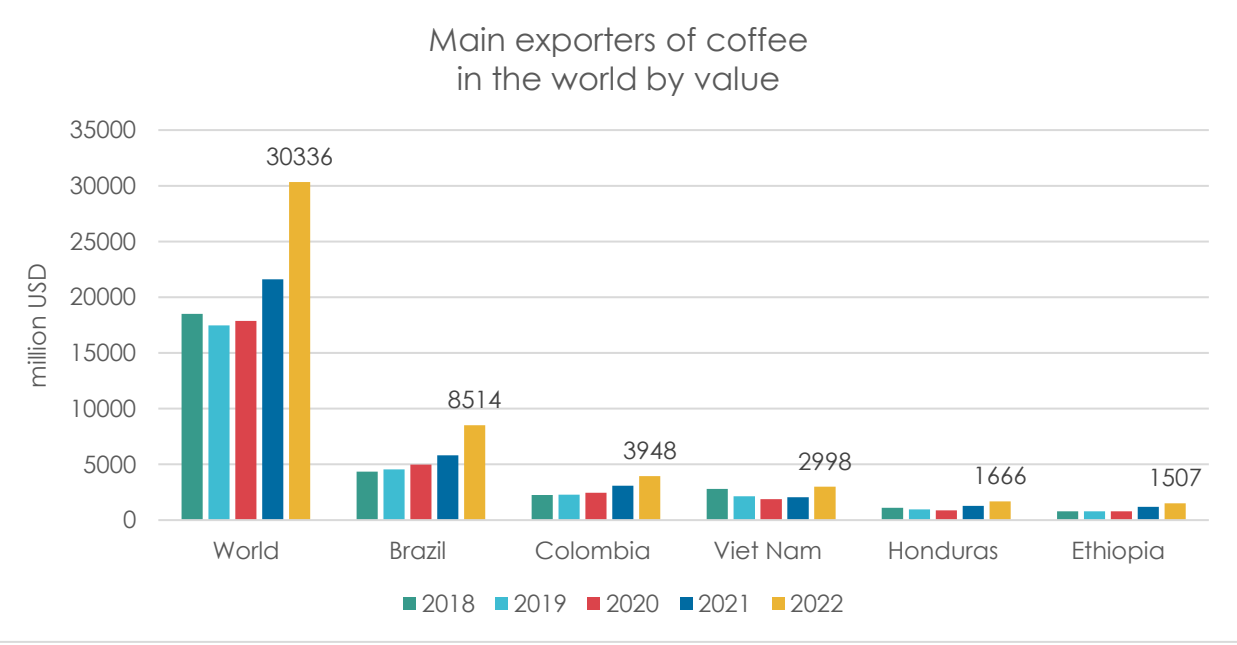
*Table 13. Vietnam rice export markets (January 2023)*

| Vietnam rice export markets (January 2023) | | | |
|---|---|---|---|
| **Market** | Quantity (ton) | Value (USD) | Percentage (%) |
| **Philippines** | 129,323 | 64,552,167 | 35.99% |
| **Indonesia** | 85,925 | 40,932,150 | 23.91% |
| **China** | 47,424 | 28,386,232 | 13.20% |
| **Ivory Coast** | 30,891 | 13,878,601 | 8.60% |
| **Malaysia** | 10,841 | 5,665,163 | 3.02% |
| **Singapore** | 6,882 | 3,791,434 | 1.92% |
| **Hongkong** | 3,978 | 2,396,468 | 1.11% |
| **Mozambique** | 3,224 | 1,740,002 | 0.90% |
| **United Arab Emirates** | 2,540 | 1,577,714 | 0.71% |
| **Australia** | 1,957 | 1,407,522 | 0.54% |

## Coffee

Vietnam is the third largest exporter of coffee in the world. Vietnamese coffee exports in 2022 reached 1.78 million tons with a value of close to $3 billion (10% of the global value), up 13.8% in volume and 32% in value compared to 2021. The average export price of coffee in 2022 is projected to be $2,281.7/ton, an increase of 16% compared to 2021.

*Figure 37. Main exporters of coffee in the world by value*

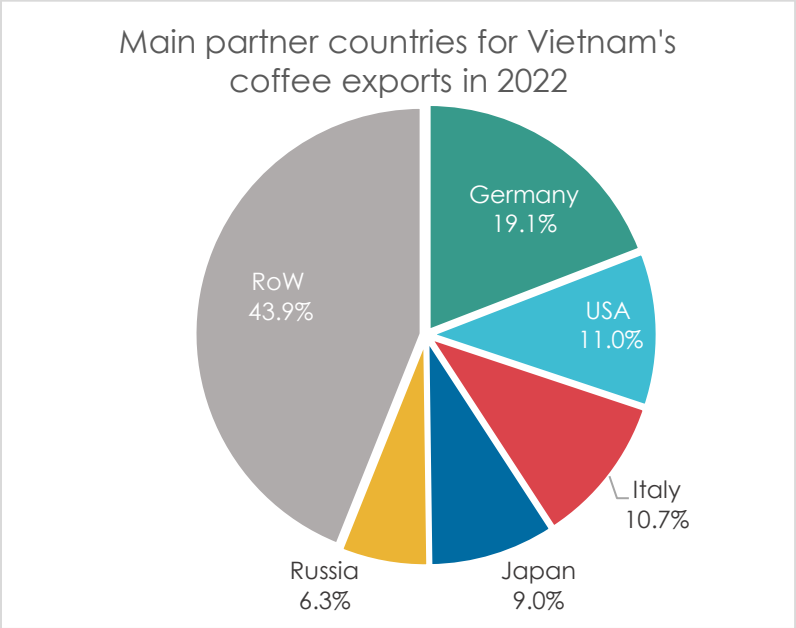



*Source: ITC Trade Map*

Germany, the United States, and Italy are the three largest markets for Vietnamese coffee in 2022 with market shares of 19.1%, 11%, and 10.7%, respectively. In 2022, the market with the highest growth rate in coffee export value was the Netherlands (increasing 2.7 times), while the market with the sharpest decline in coffee export value was Algeria (decreasing 14.7%).

*Source: ITC Trade Map*

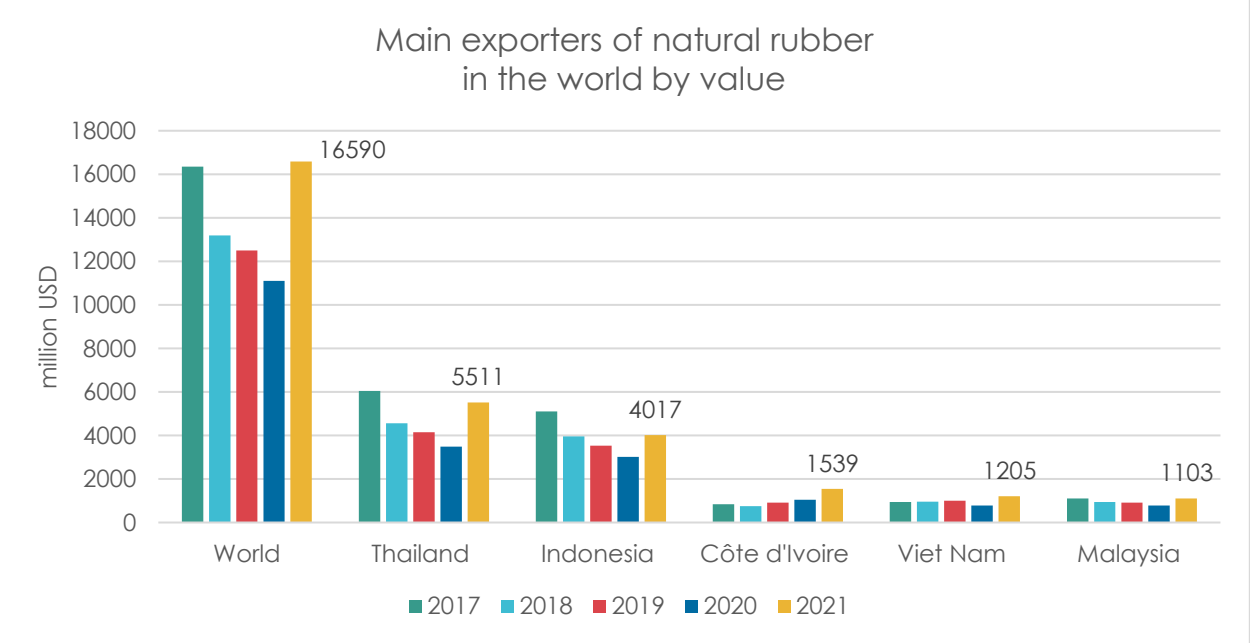
*Figure 38. Main partner countries for Vietnam's coffee exports in 2022*




In January 2023, coffee exports are estimated to reach 160,000 tons with a value of $352 million, down 30.9% in volume and 29.8% in value compared to the same period in 2022.

## Rubber

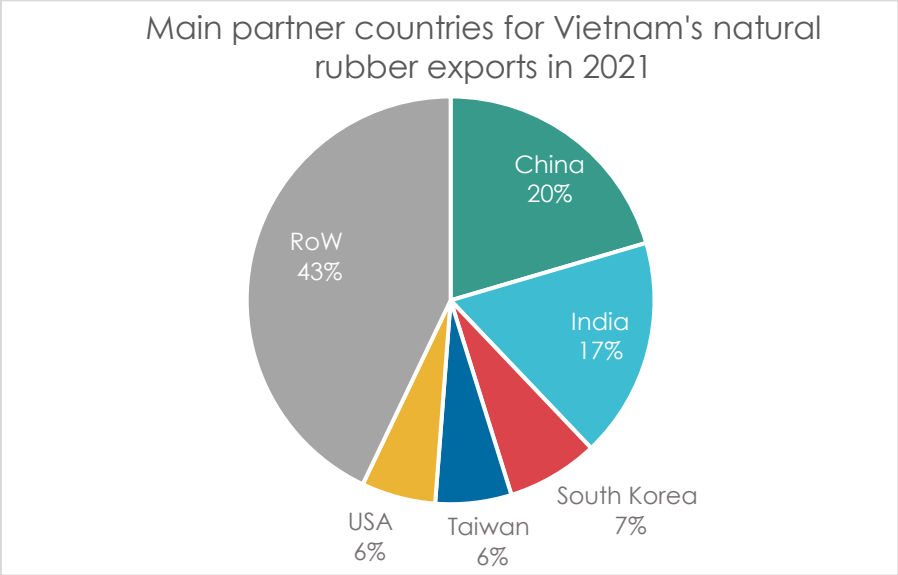
*Figure 39. Main exporters of natural rubber in the world by value*




*Source: ITC Trade Map – latest data available*

Vietnamese rubber exports in 2021 amounted a value of $1.2 billion, up 53% in value compared to 2020 (which was one of the worst years for natural rubber).

*Figure 40. Main partner countries for Vietnam's natural rubber exports in 2021*



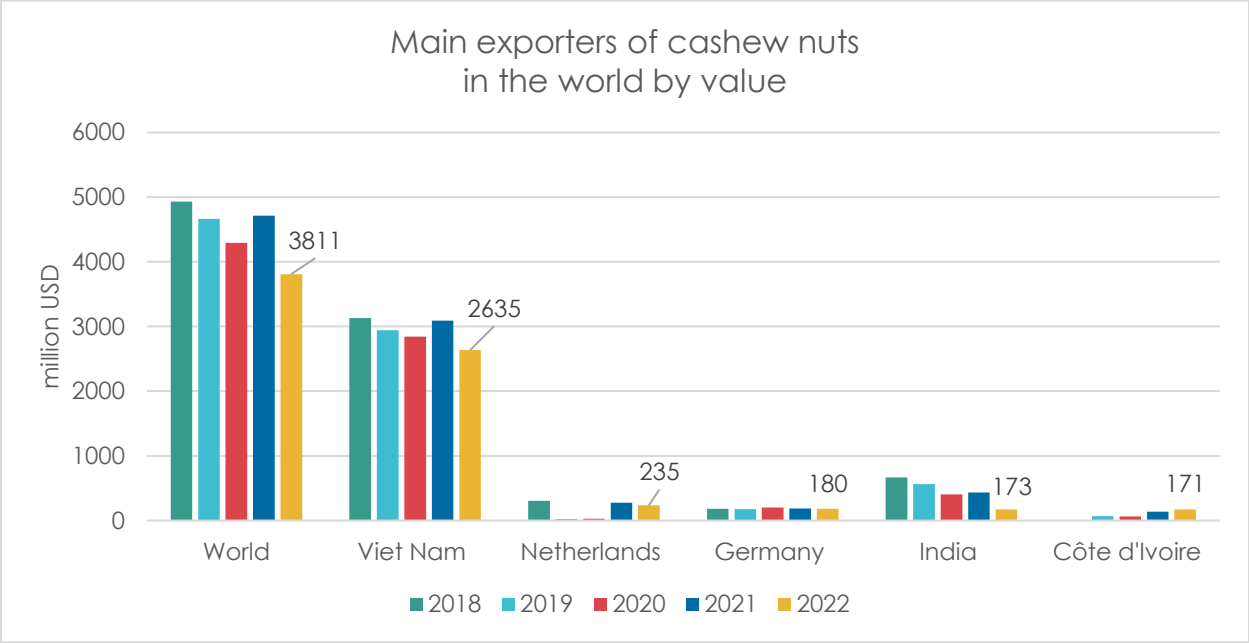

China, India, and South Korea were the three largest markets for Vietnam's natural rubber with market shares of 20%, 17%, and 7%, respectively.

*Source: ITC Trade Map – latest data available*

## Cashew

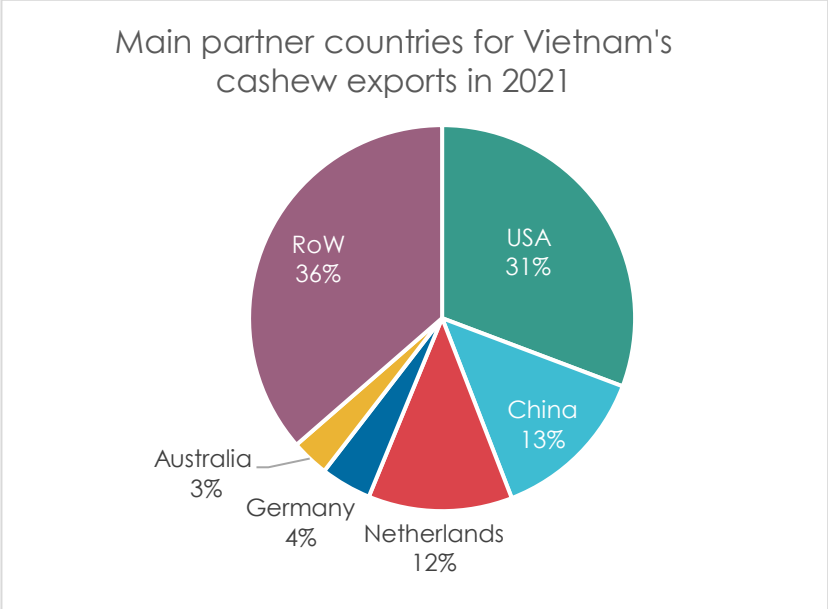
Vietnam remained by far the largest cashew exporter in the world, with 70% of global trade. In 2022, Vietnamese export of cashew nuts reached 520,000 tons in volume exported for $2.64 billion US. The average export price of cashew nuts in 2022 was $5,938.4 /ton, a decrease of 5.4% compared to the previous year.

*Figure 41. Main exporters of cashew nuts in the world by value*




*Source: ITC Trade Map – latest data available*

*Figure 42. Main partner countries for Vietnam's cashew exports in 2021*




The United States, China, and the Netherlands were still the three largest markets for Vietnamese cashew nut exports, accounting for 27.3%, 14.3%, and 9.6% of the total export value, respectively. In 2022, the market with the highest increase in cashew nut export value was Iraq (+83.4%), while the market with the sharpest decline in cashew nut export value was Canada (-31.7%).

*Source: ITC Trade Map – latest data available*

In January 2023, cashew nut export volume had reached 40,000 tons with a value of $226 million, up 0.7% in volume but down 4% in value compared to the same period in 2022.

## Cassava (Manioc)

Regarding cassava (HS Code 071410) and cassava starch (HS Code 110814), Vietnam remained in 2022 the world top 3 with a total of $1.1 billion exported.

*Figure 43. Main exporters of cassava roots (HS 071410) in the world by value*

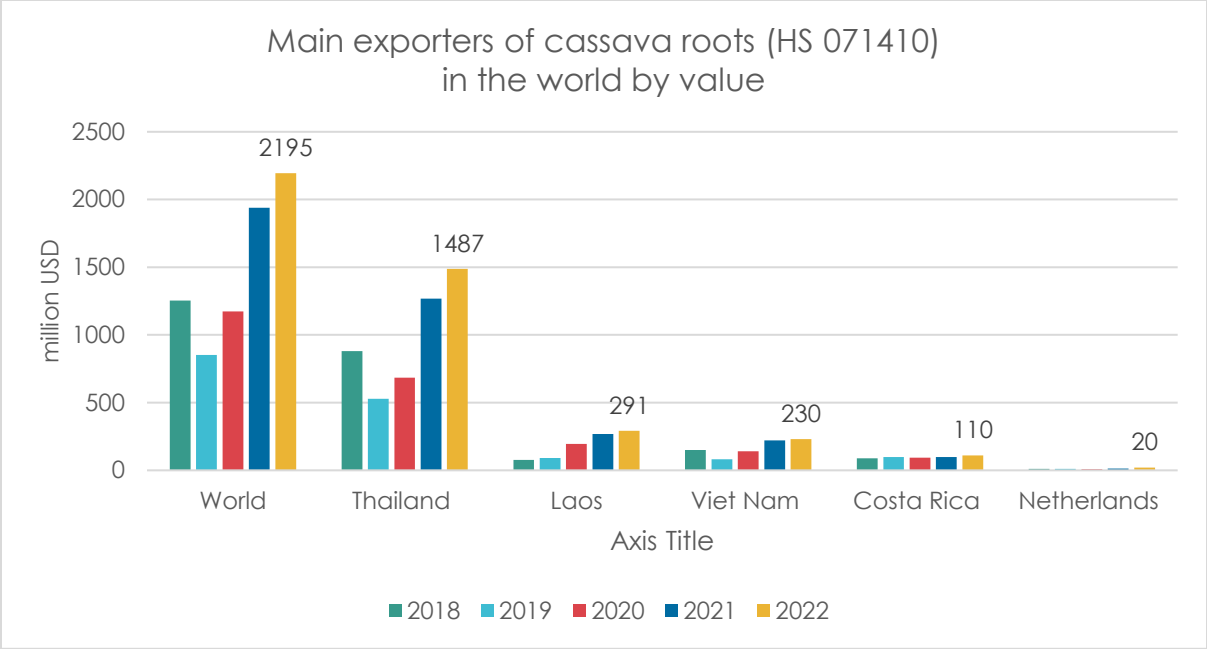
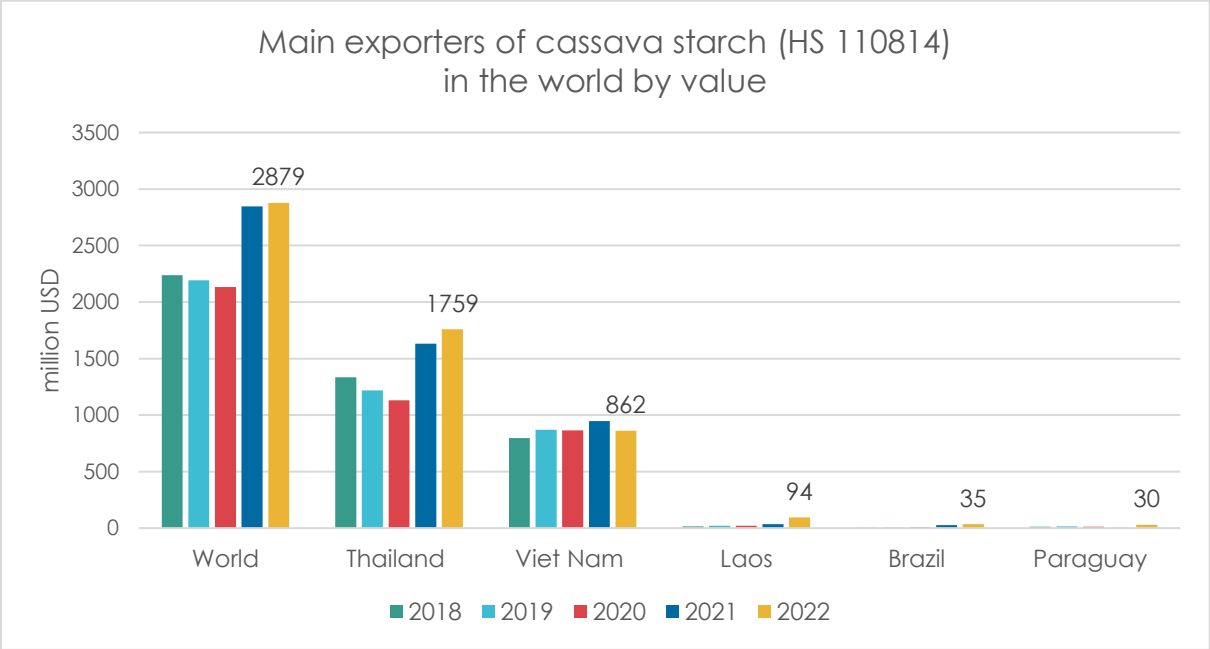


*Figure 44. Main exporters of cassava starch (HS 110814) in the world by value*




*Source: ITC Trade Map – latest data available*

For the cassava roots, two countries dominate the market shares: primarily China, accounting for 85% of imports from Vietnam, followed by South Korea with 14%. As for cassava starch, the market is predominantly focused on China, which receives 96.5% of Vietnamese exports.

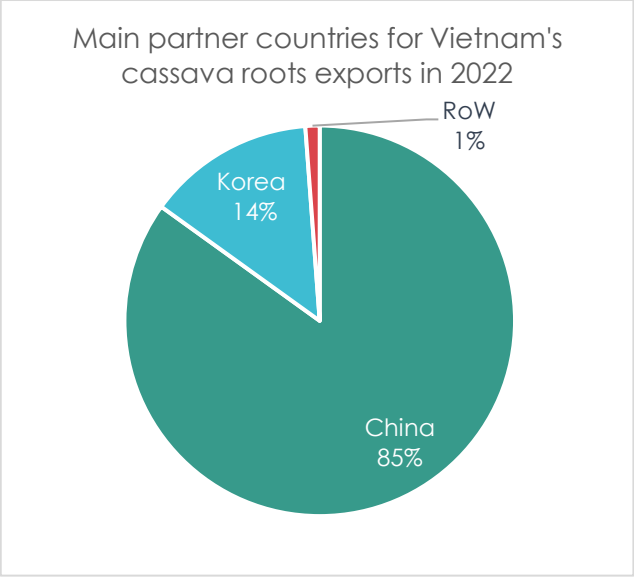



*Figure 45. Main partner countries for Vietnam's cassava roots exports in 2022*

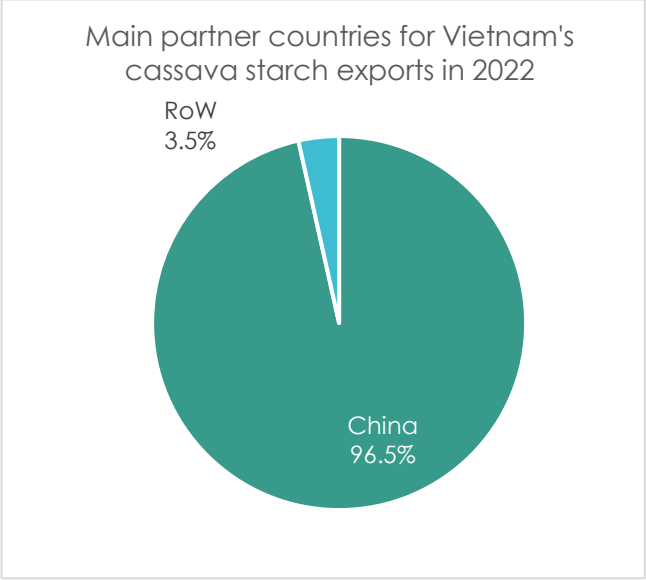


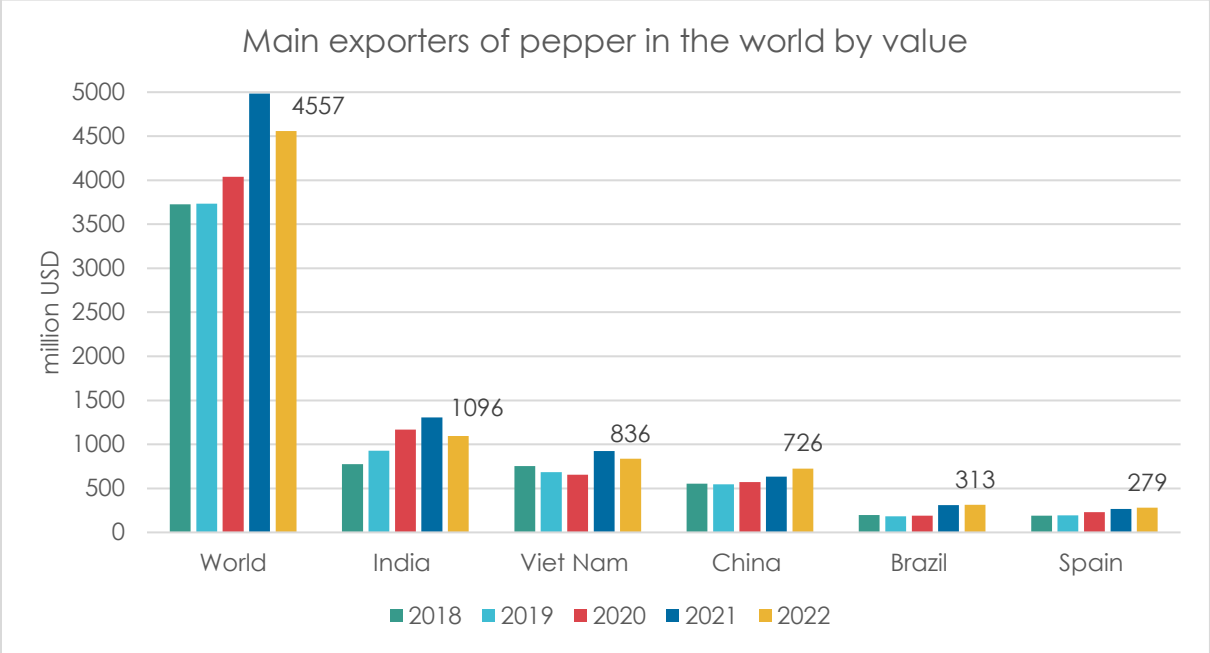

*Figure 46. Main partner countries for Vietnam's cassava starch exports in 2022*

*Source: ITC Trade Map – latest data available*

## Pepper

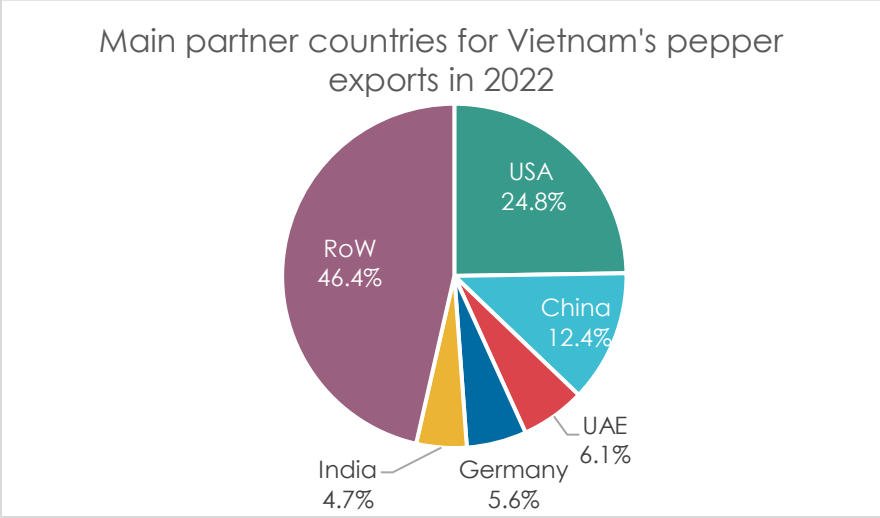
Pepper exports in 2022 have reached 229,000 tons and $836 million, making Vietnam the second largest exporter in the world with 18.3% of the market value, right behind India (24.1%). The average export price of pepper in 2022 was $4,244 /ton, an increase of 18.1% compared to 2021.

*Figure 47. Main exporters of pepper in the world by value*




*Source: ITC Trade Map – latest data available*

*Figure 48. Main partner countries for Vietnam's pepper exports in 2022*




The three largest markets for Vietnamese pepper exports in 2022 were the United States with around a fourth of export value, followed by China, the United Arab Emirates, and India.

*Source: ITC Trade Map – latest data available*

In January 2023, pepper export volume is estimated to reach 18,000 tons with a value of $61 million, up 14.9% in volume but down 17.2% in value compared to the same period in 2022.

| HIGHLIGHTS | • Rice remains the main agricultural export of Vietnam in value, with $3.46 billion exported in 2022.<br>• Coffee, rubber, cashew, cassava and pepper are the other powerhouses of Vietnam agricultural trade, with a combined export value of almost $9 billion in 2022. |
|---|---|

## 2. Agriculture in Vietnam – c) Livestock – i) Areas, farm types, mapping

The livestock subsector has developed significantly over the past 10 years with production becoming more concentrated in larger commercial units where hygiene levels can be better controlled and vulnerability to disease can be more easily addressed. However, there are growing concerns over waste management and pollution from these larger intensive units. Previously, there were many small producers who kept livestock for immediate household consumption (poultry and pigs) or as draught animals (cattle and buffaloes) used in land preparation for cropping and transport of products to collection points for sale. As a result, large animals are no longer required for draught purposes and are kept largely for meat purposes and increasingly milk in the elevated more temperate areas.

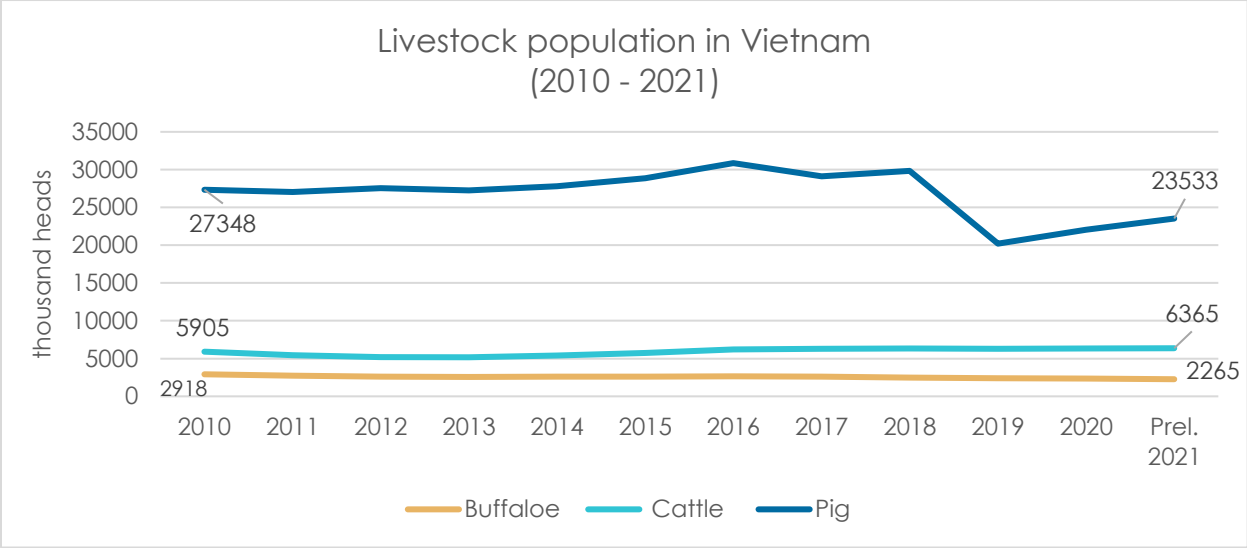
Vietnam has shown interest in the concept of "Industry 4.0" and aims to apply it to various sectors, including agriculture. Livestock 4.0 is being implemented in large-scale farms, breeding units, and animal feed manufacturers, especially to enhance quality control management. New technologies and automation along the value chain, from farm to table, are integrated into production processes, such as automated farm management, preservation and improvement of local genetics, product traceability, automation of animal feed production, smartphone-based management, and more.

Furthermore, the African swine fever (ASF) epidemic, which arrived in Vietnam in 2018/2019, spread across all 63 provinces in the country and entailed a local shortage of pork. This shortage, combined with challenges in replenishing the pig population and the complex international market dynamics (ASF also affected China), has led to a significant increase in pork prices, particularly during special events like the Vietnamese New Year. For this reason, the country presents strong opportunities for suppliers in the livestock improvement segments, including animal transportation, sanitary regulations, genetics, and animal health, aimed at reducing livestock losses, ensuring farmers' income, and facilitating necessary investments for technological innovations.

## i1) Overall livestock population

The bovine population, comprising both cattle and buffaloes, has shown a relatively steady trend over the past decade. The cattle population experienced a modest growth of only 7.8% during this period. However, there has been a significant decline in the buffalo population, which has decreased by over 20%. This decline can be attributed to the decreasing reliance of farmers on buffaloes for tasks such as plowing and other farm-related work.

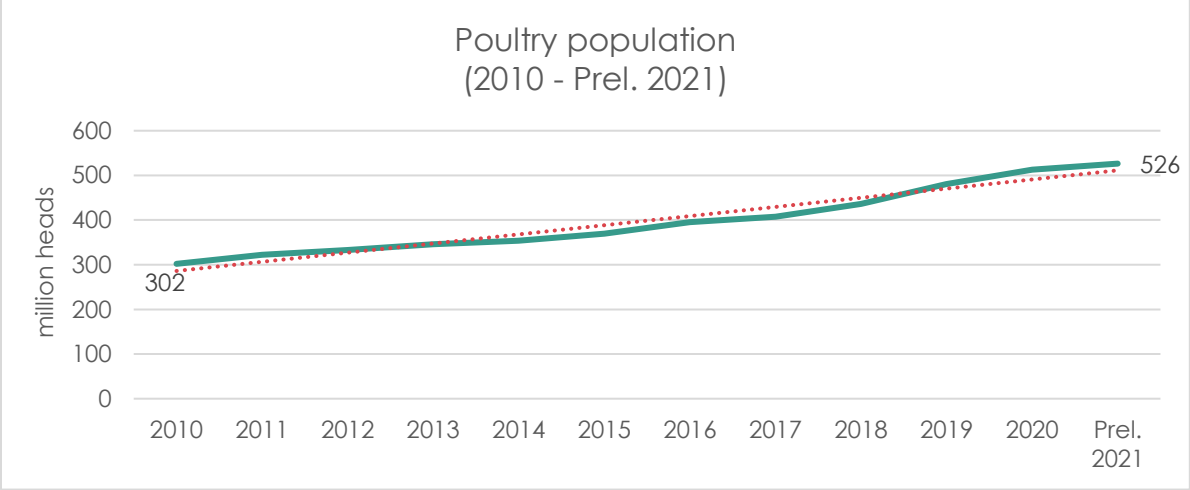
*Figure 49. Livestock population in Vietnam (2010 - 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

In 2019, the pig population witnessed a notable contraction due to the outbreak of ASF, which led to the culling more than 7 million pigs.

*Figure 50. Poultry population (2010 – Prel. 2021)*

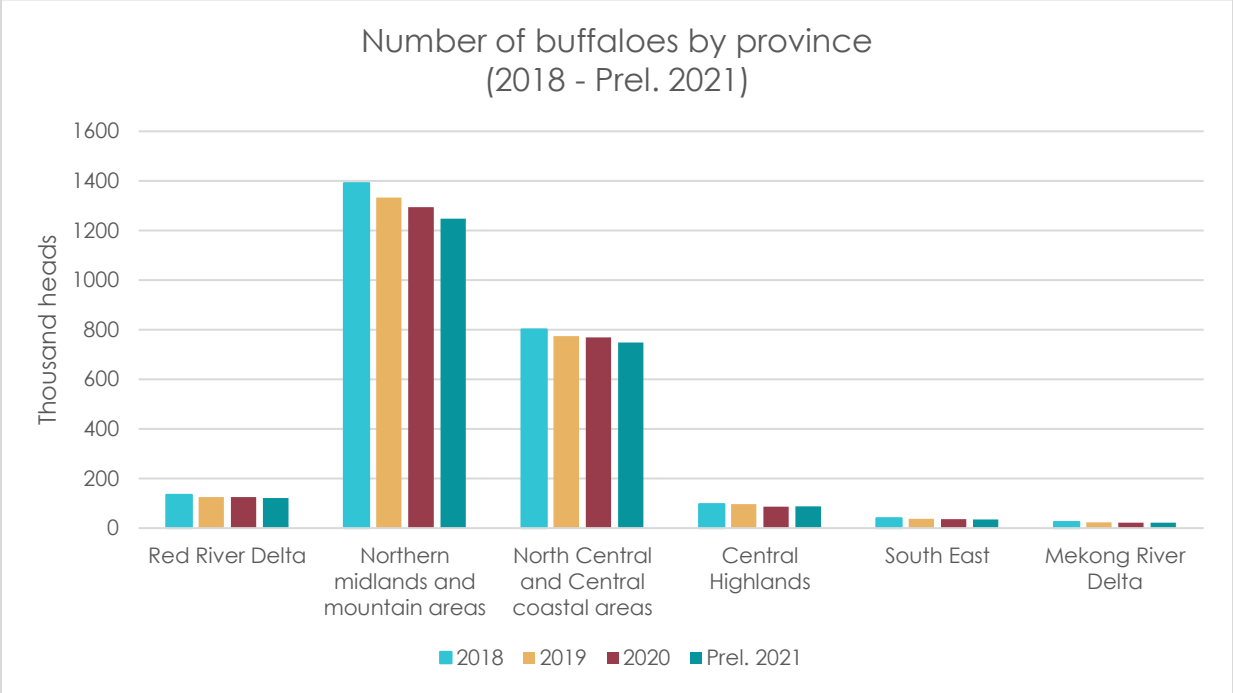



*Source: GSO – Statistical Yearbook of Vietnam 2021*

Over the same period, the poultry population increased by 75%, thanks to an ever-increasing domestic demand: in 2022, it is estimated that the Vietnamese people consumed an average of 18.3 kg /person/ year (versus 17.8 kg in 2021, and 12kg a decade ago).

## i2) Livestock population by provinces

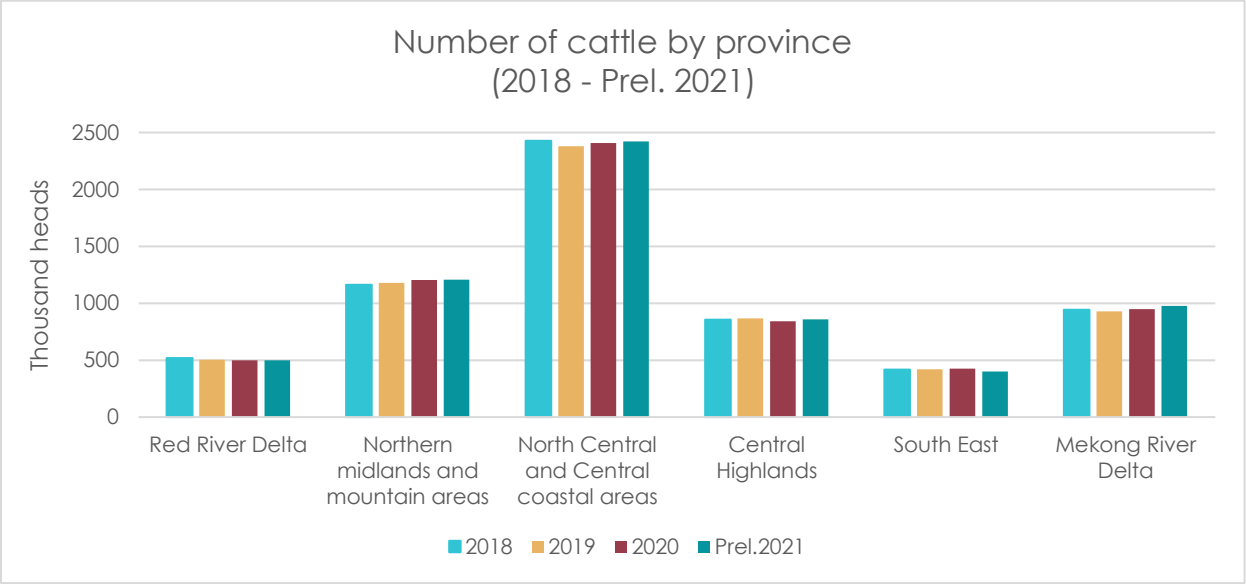
*Figure 51. Number of buffaloes by province (2018 - Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

Buffalo populations are mainly found in the Northern midlands and the North Central areas: those two regions concentrating 88% of the overall population in Vietnam in 2021. The population is sharply decreasing, especially in the Northern Midlands, where the number of buffaloes went from 1.468 million heads in 2015 to 1.248 million in 2021, an average decrease of 3% a year.

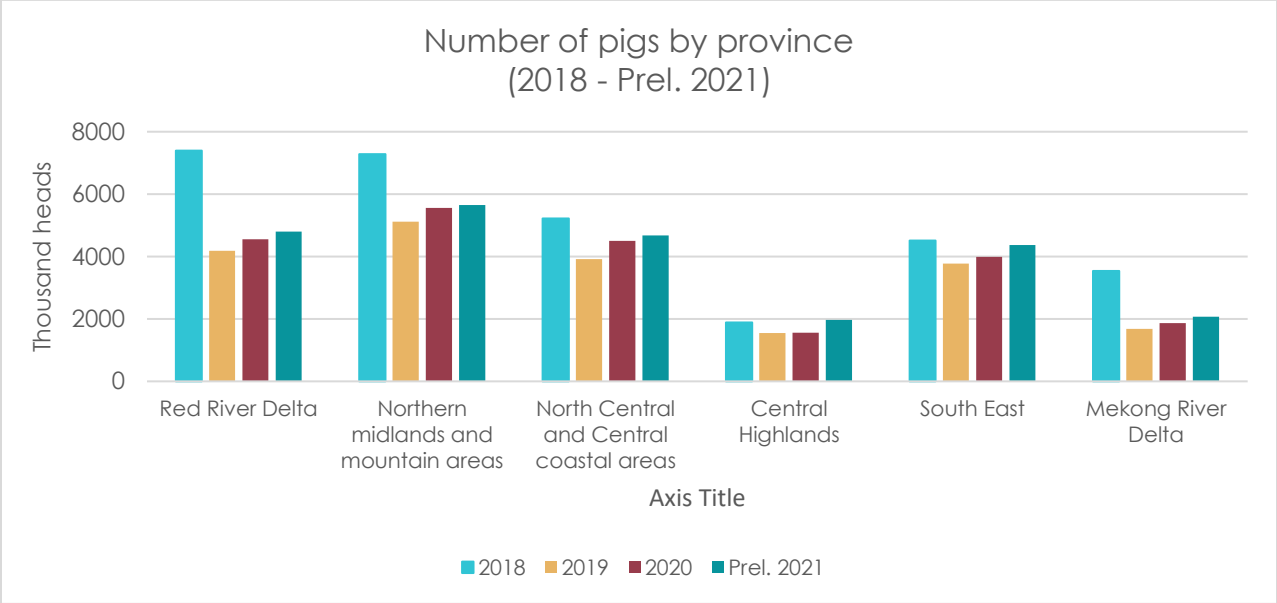
*Figure 52. Number of cattle by province (2018 – Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

North Central and Central coastal areas concentrate the main proportion of cattle (with 38% of the total population), the remaining heads being overall equally shared out amongst Vietnam's other regions

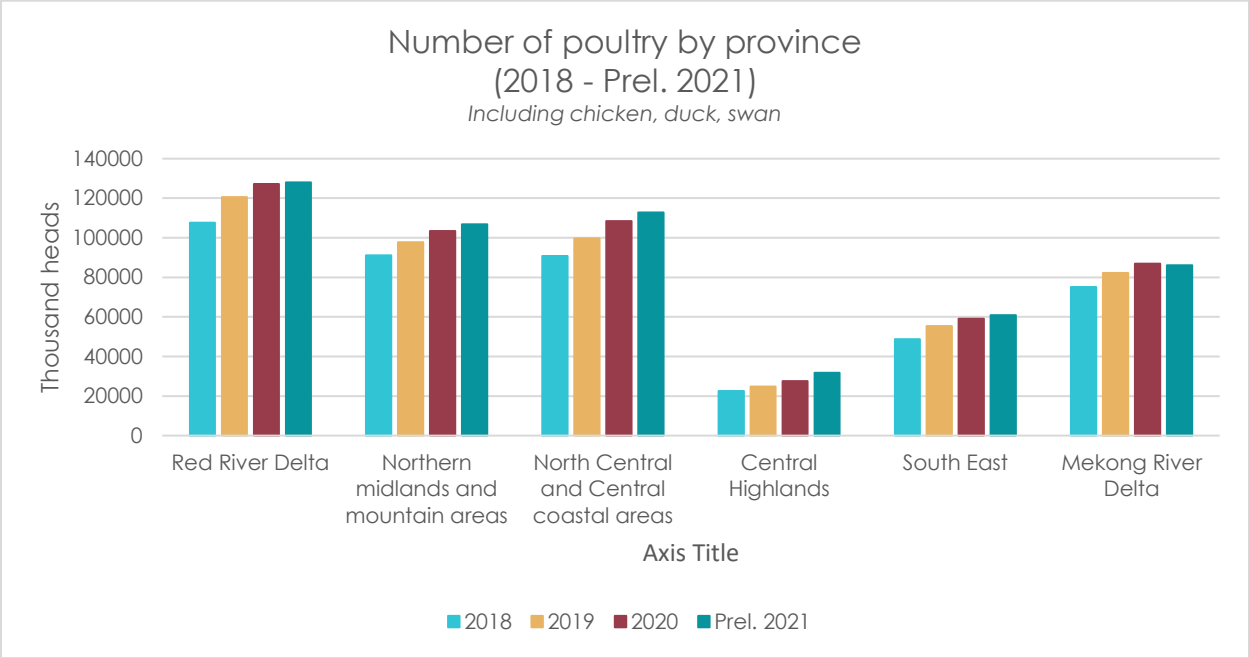
*Figure 53. Number of pigs by province (2018 – Prel. 2021)*




*Source: GSO – Statistical Yearbook of Vietnam 2021*

Regarding pigs, the Red River Delta was concentrating most of the population before the 2019 ASF outbreak and has been slowly recovering ever since. Now, the main region is the Northern midlands and mountain areas, and the Red River Delta's population is on par with that of the North Central/Central coastal areas and the South East.

*Figure 54. Number of poultry by province (2018 – Prel. 2021)*




The Red River Delta region remains the hotspot in Vietnam for poultry husbandry in 2021, with close to 128 million heads, 24.3% of the total 526 million poultry population, followed closely by the North Central & Central coastal areas (113M heads), and the Norther midlands and mountains areas (107M heads).

| HIGHLIGHTS | • Populations of cattle and buffaloes in Vietnam have respectively stagnated and decreased over the last 10 years.<br>• Pig population was and remains growing, but is still strenuously recovering from the 2019 ASF outbreak.<br>• Poultry is by far the most dynamic livestock in terms of growth, with a population that is overall mainly concentrated in the north. |
|---|---|

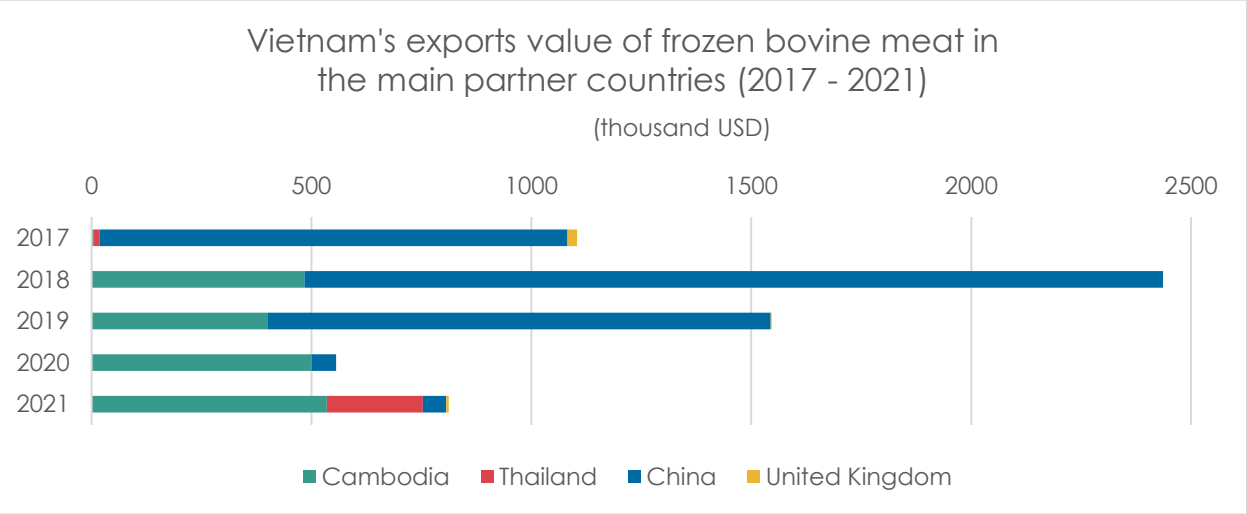
## 2. Agriculture in Vietnam – c) Livestock – ii) Trade

### ii1) Export

The export value of livestock products in 2022 will reach $409 million, down 5.2% compared to 2021. In which, the export of milk and dairy products will reach $106.4 million, down 3.5%; while meat and meat by-products and edible animal by-products reached $115.2 million, down 0.5%.

Estimated livestock export value in January 2023 reached $30 million, up 14.5% over the same period in 2022.

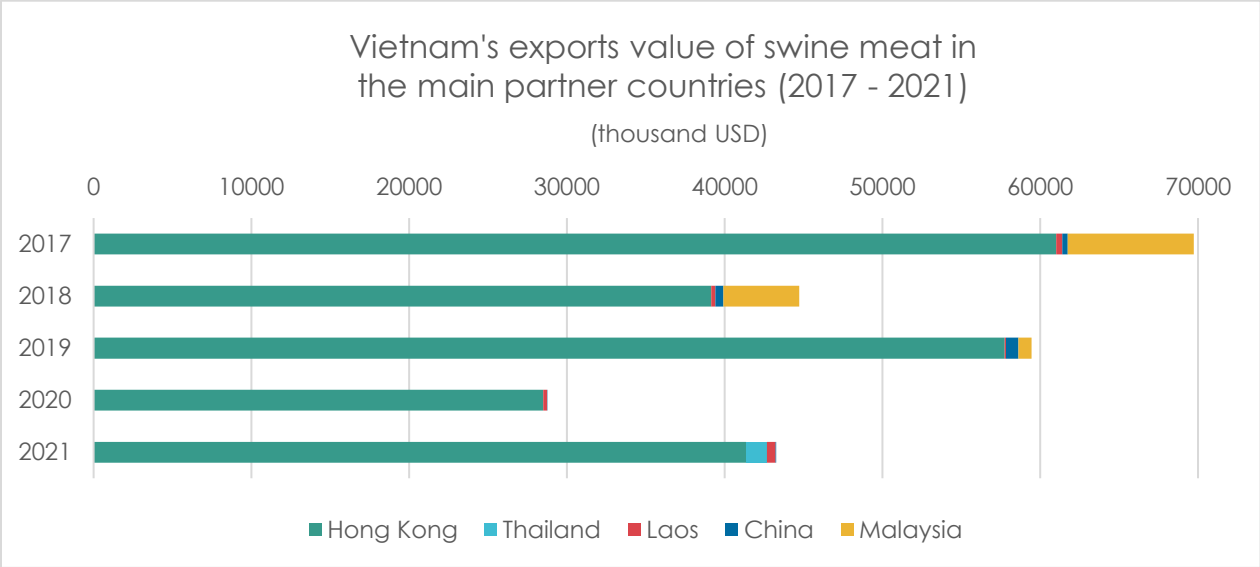
*Figure 55. Vietnam's exports value of frozen bovine meat in the main partner countries (2017 - 2021)*




*Source: ITC Trade Map – Latest available data*

Frozen meat of bovines (HS Code 0202) is a relatively low source of trade for Vietnam, and is mainly exported to neighboring countries, with wide changes year on year, depending on the local production, foreign regulations and demand, etc. Overall, China was consistently the most important customer, pre-Covid, while Cambodia and Thailand have now become the main destination markets.

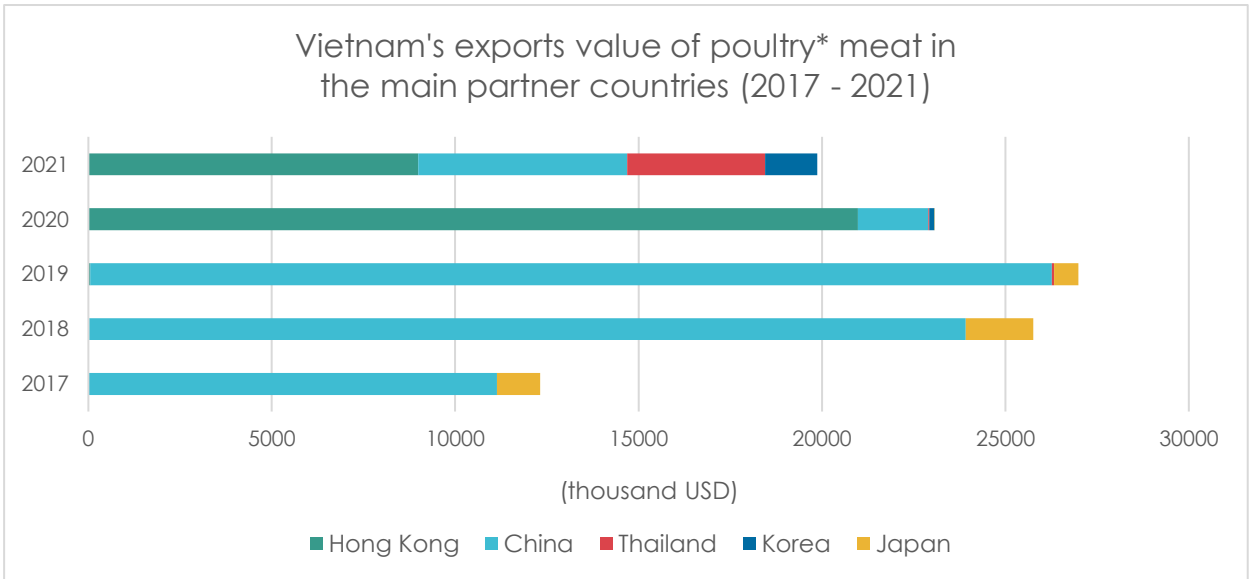
*Figure 56. Vietnam's exports value of swine meat in the main partner countries (2017 – 2021)*




*Source: ITC Trade Map – Latest available data*

Vietnam's exports of swine meat have overall decreased over the last few years, going from near $70 million in 2017, to $43 million in 2021, the main reason being that exports to Malaysia, which was the second partner country, stopped in 2020. By far, Hong Kong remains in 2021 the main customer for Vietnam's swine meat, with 95% of the exports. Most of the swine meat is probably transferring through Hong Kong to China.

*Figure 57. Vietnam's exports value of poultry* meat in the main partner countries (2017 - 2021)*

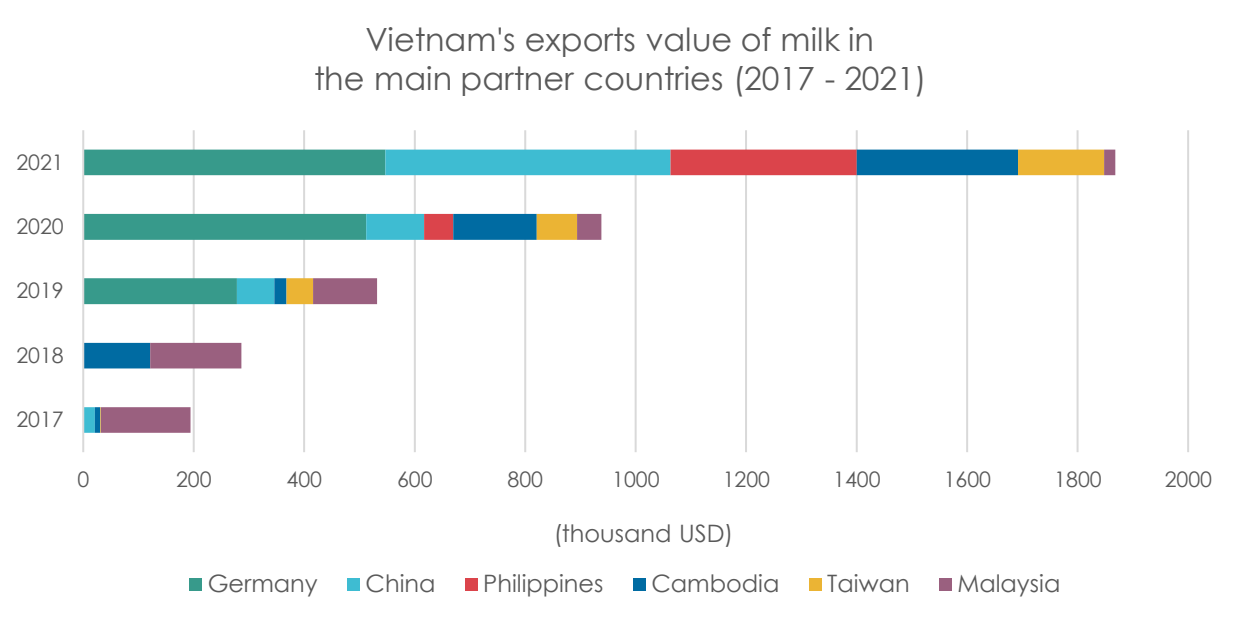



*Source: ITC Trade Map – Latest available data (*HS Code 0207 – Gallus Domesticus, Geese, Turkey, etc.)*

Comparatively to the size of the poultry production in Vietnam, its exports of poultry meat remain relatively low, the products being still overall consumed locally. Nonetheless, the

value of poultry meat being exported has drastically soared up over the last 10 years, going from $250,000 in 2011, versus $20 million in 2021. China in pre-Covid times, then Hong Kong as port of entry, remains the main partner of Vietnamese poultry meat.

*Figure 58. Vietnam's exports value of milk in the main partner countries (2017 - 2021)*




*Source: ITC Trade Map – Latest available data*

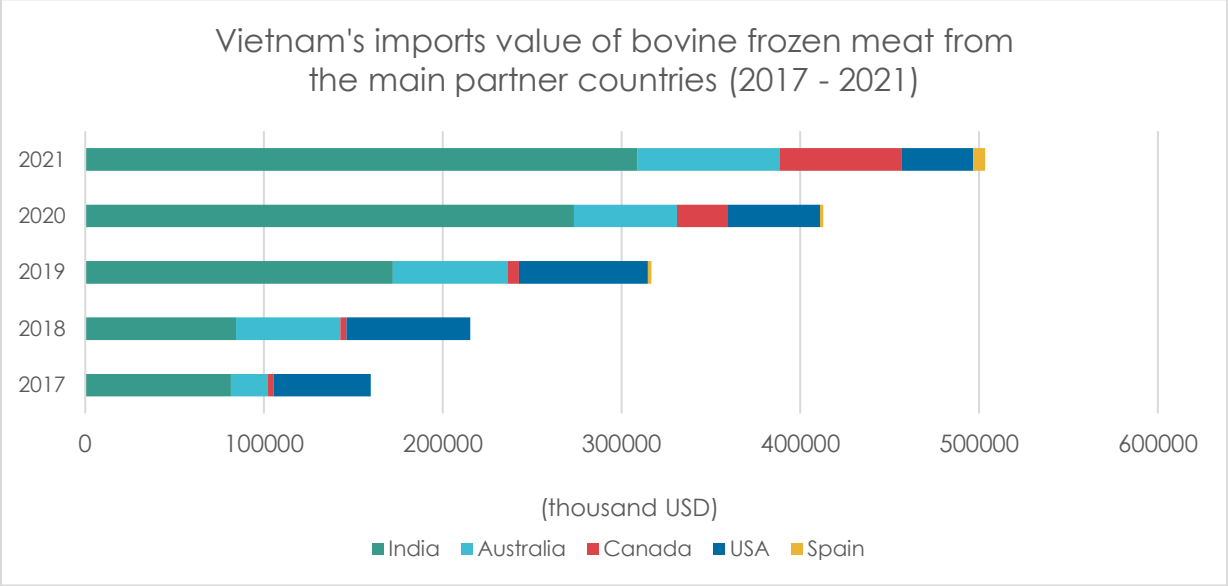
Vietnam's exports of milk remain relatively low, but have grown substantially since 2017, increasing almost ten-fold overall from $280,000 in export value, to $2 million in 2021.

## ii2) Import

The import value of livestock products in 2022 will reach $3.29 billion, down 0.7% compared to 2021. In which, the import value of milk and dairy products will reach $1.25 billion, up 6.5%. 4%; Import value of meat, meat by-products and edible animal by-products reached $1.52 billion, up 9.1%.

Estimated import value of livestock products in January 2023 reached $285 million, up 14.2% over the same period in 2022.

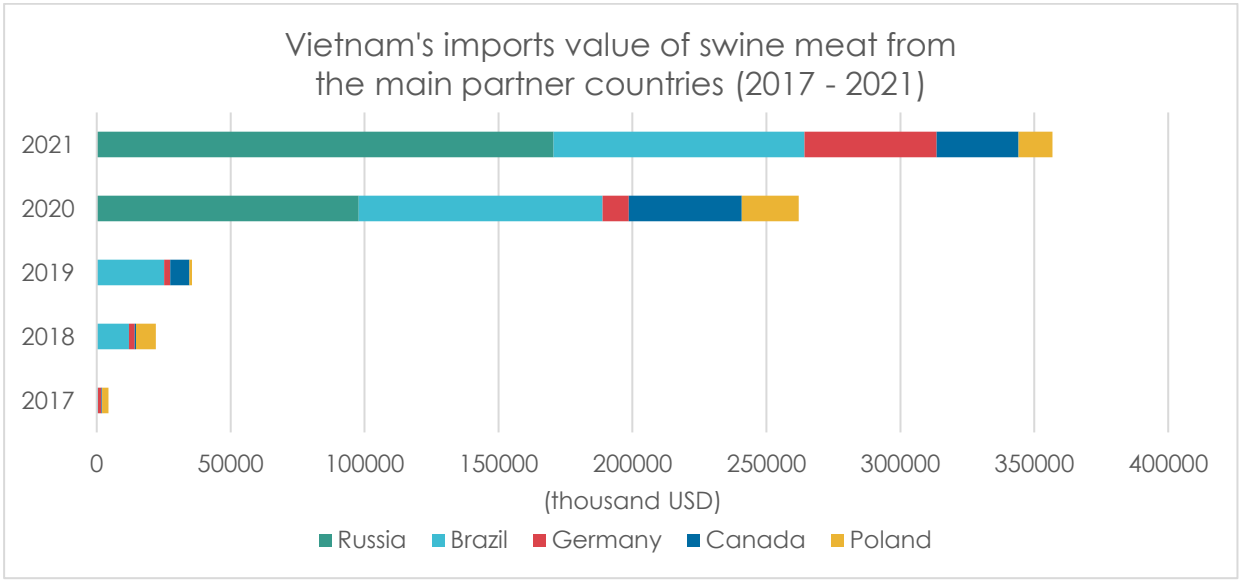
*Figure 59. Vietnam's imports value of bovine frozen meat from the main partner countries (2017 - 2021)*




*Source: ITC Trade Map – Latest available data*

Vietnam has been relying more and more on import for its bovine meat consumption, going from $170 million of imported value in 2017 to more than $520 million in 2021. India remains the main provider, with close than 60% of imports shares in value.

*Figure 60. Vietnam's imports value of swine meat from the main partner countries (2017 - 2021)*

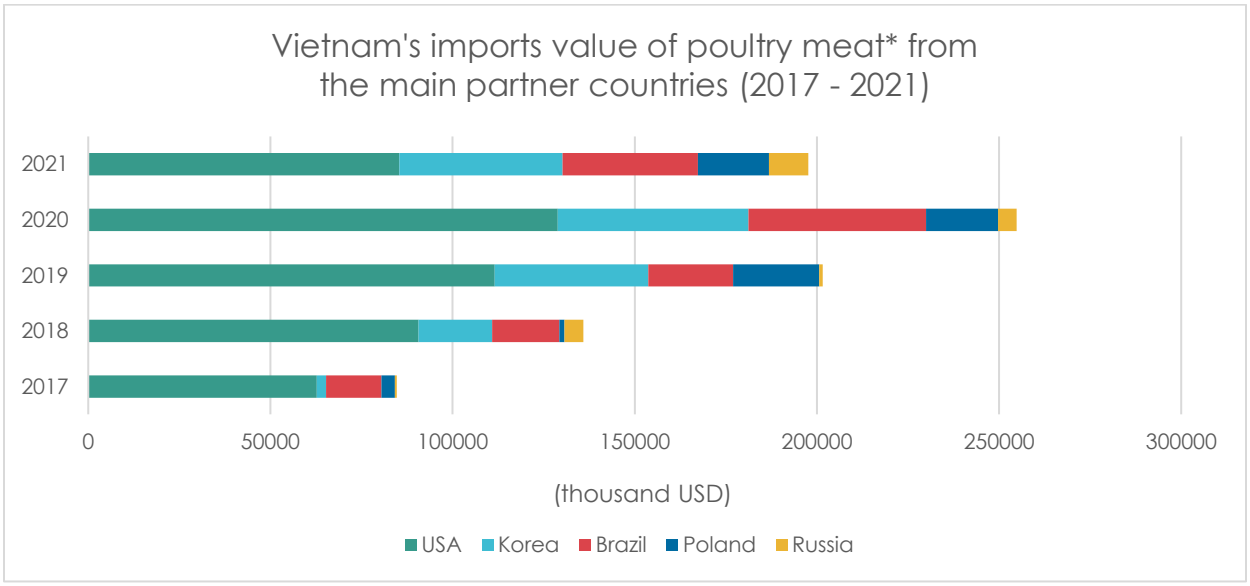



*Source: ITC Trade Map – Latest available data*

If Vietnam was relying mainly on its domestic production before the 2019 ASF outbreak, all changes drastically afterwards, with total imports value going up to $386 million in 2021 from $13 million in 2017. Russia has become the main supplier, providing almost half (44%)

of swine meat to Vietnam in 2021. Italy is in 2021 the 14th supplier of Vietnam, with $1.6 million in value.

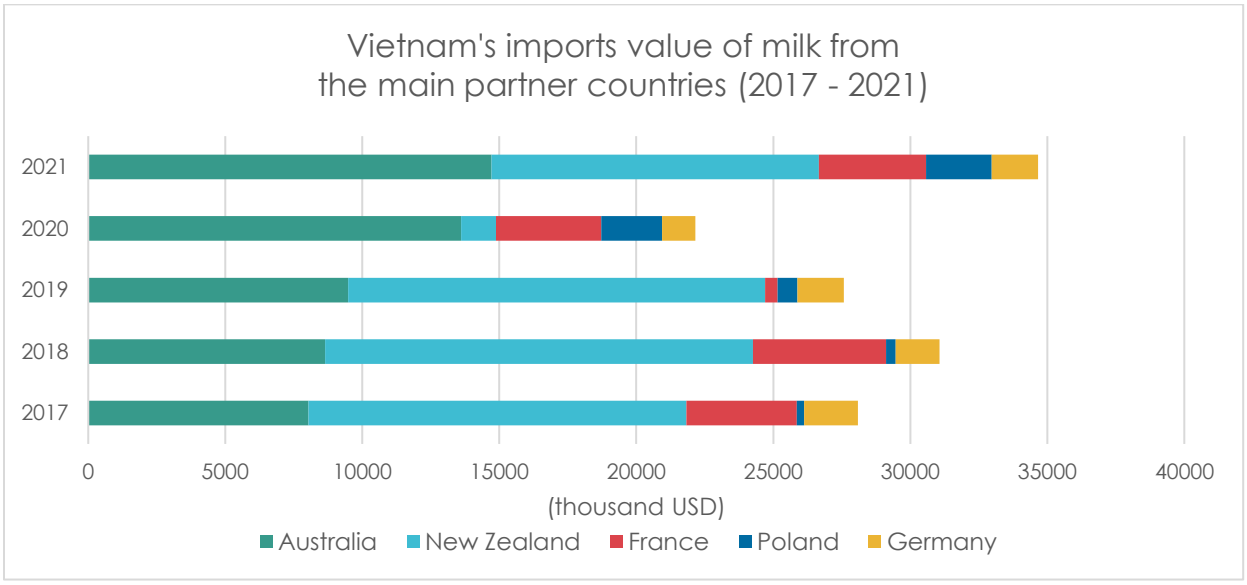
*Figure 61. Vietnam's imports value of poultry meat* from the main partner countries (2017 - 2021)*




*Source: ITC Trade Map – Latest available data (*HS Code 0207 – Gallus Domesticus, Geese, Turkey, etc.)*

Vietnam's imports of poultry meat have doubled in value over the last 5 years, in particular because of an increasing presence from South Korean products. The US remain the main partner country with close to 40% of imports shares. Italy is the 11th supplier to Vietnam in value in 2021, with $2 million of poultry meat exported.

*Figure 62. Vietnam's imports value of milk from the main partner countries (2017 - 2021)*




*Source: ITC Trade Map – Latest available data*

Vietnam's imports of milk have remained relatively stable these past few years, reaching overall $40 million in 2021 (from 30 in 2017). Australia and New Zealand are the main provider, with a little more than 50% of the market share. Italy is in 2021 the 11th supplier, with a marginal $316,000 of milk exported to Vietnam.

| HIGHLIGHTS | • Vietnam's livestock-related exports remain relatively low, although some segments are showing strong growth (milk in particular).<br>• The country remains highly dependent on imports for most of those products.<br>• This can be partly explained by the lack of integration of value chains, low productivity, and non-competitive costs: there is room for modernization and mechanization solutions. |
|---|---|

## 2. Agriculture in Vietnam – d) Plan of MARD to restructure the agricultural sector for the period of 2021 - 2025

On February 25, 2021, the Prime Minister's office approved the Ministry of Agriculture and Rural Development's (MARD) plan for restructuring agriculture in the period from 2021 to 2025. This plan sets forth a number of significant goals and objectives, which are outlined as follows.

### i) Structure by product groups

**- Rice**: Improve the efficiency of land use for rice cultivation, keeping stable from 3.4 to 3.5 million ha of rice land; The cultivated area is from 7.2 to 7.3 million hectares, the output is about 42 million tons of rice/year, enough to meet the demand for domestic consumption and export from 4.0 to 5.0 million tons of rice/year. Increase the percentage of high-quality rice cultivation area in the total rice-growing area from 70 to 75%; The rate of using certified varieties is about 90%. Promote the development of organic rice production and diversify the products processed from rice and rice by-products (straw, straw, husk, bran) to increase added value. To develop key rice production areas in the Mekong River Delta and the Red River Delta.

**- Coffee:** Reduce the area to 670 thousand hectares, the output from 1.8 to 1.9 million tons/year; develop key production areas in the Central Highlands and the Southeast. Promote replanting and grafting of old coffee gardens; using 100% coffee varieties with high yield and quality; intercropping industrial crops, perennial fruit trees with eligible re-cultivation coffee areas. Increase investment in deep processing to improve the quality of coffee for export and domestic consumption.

**- Rubber:** Continue to reduce the area of rubber in unsuitable areas, maintain an area of about 900 thousand hectares, an output of about 1.3 to 1.4 million tons/year, concentrated in the Southeast region, Highlands. Promote replanting of old orchards and

intensive cultivation of existing orchards to improve productivity and quality. Completing the quality management system of preliminarily processed natural rubber in Vietnam.

**- Cashew:** To maintain and develop stably about 300 thousand hectares, the output of raw cashew nuts is about 360 thousand tons/year, concentrated in the Southeast region and the Central Highlands. Promote research, selection, creation and production of new cashew varieties to continue serving for replanting, replacing old, mixed, low-yield and poor-quality cashew orchards.

**- Pepper:** Stable development of about 100 to 120 thousand hectares, output of 250 thousand tons/year, concentrated in the Southeast region and the Central Highlands. Increase the area of pepper intercropped, reduce the area of pure pepper to reduce pressure on harmful organisms. To build a concentrated, safe and quality pepper production area in association with investment in processing facilities.

**- Tea:** Continue to maintain a stable area from 120 to 125 thousand hectares, with an output of 1.2 million tons/year, concentrated in the Northern Midlands and Mountains and the Central Highlands. Raise the percentage of high-quality tea area to about 30%; The area of tea certified for food safety increased to 55%. Strictly control the quality of input materials (seeds, fertilizers, pesticides). Increasing the application of advanced technical processes in tea cultivation; develop a safe tea production process, apply integrated pest management techniques on tea.

**- Fruit trees:** To increase the area of fruit trees nationwide to about 1.2 million hectares, with an output of 14 million tons/year. To focus on developing key fruit tree production areas in the northern mountainous areas, the Red River Delta, the Central Highlands, the Southeast and the Mekong River Delta. Expand regional links, spread the harvest; strongly develop concentrated fruit tree production areas in association with the development of processing factories.

**- Vegetables:** To increase the planting area to about 1.1 million hectares, with an output of 21 million tons/year. Promote the development of concentrated vegetable production areas, apply high technology, apply good and organic production processes, ensure food safety in association with processing plants.

- **Cassava:** Stabilize an area of about 500,000 ha, with an output of 10 to 11 million tons/year, concentrated in the northern mountainous areas, the South-Central Coast, the Central Highlands and the Southeast. Promote the application of technical advances in varieties and sustainable farming processes; apply mechanization, increase economic efficiency and protect the ecological environment. Develop processing technology, diversify products from cassava to serve the starch processing industry, produce animal feed and biofuel.

- **Pork:** To develop pig breeding with high yielding breeds towards industrial farms; increase the pig herd in the direction of organic and biosafety; develop indigenous pig breeds with high economic value. The total herd of pigs is about 28 to 28.5 million heads, of which the herd of sows is from 2.8 to 2.9 million heads; Pigs are raised on farms, and industry accounts

for over 50%. To develop a high-tech livestock herd management system, a modern industrial slaughtering system, to ensure disease and food safety in association with concentrated breeding areas.

- **Poultry meat and eggs:** To develop poultry raising by farm and industrial methods, in which about 45 to 50% of chicken flocks and 25 to 30% of waterfowl flocks are raised by industrial methods. Invest in and improve quality breeds, develop indigenous, colored feathered poultry breeds with high economic efficiency; The total production of live-weight poultry meat is from 1.9 to 2.0 million tons, about 18 to 19 billion eggs.

- **Pangasius:** Develop sustainable pangasius farming, increase area and output in line with market demand; maintaining a farming area of about 5,500 to 6,000 ha, with an output of about 1.6 million tons/year. Strengthen deep processing, diversify processed products, especially high value-added products from pangasius.

- **Shrimp:** To develop the shrimp industry on a large scale, applying high technology and biosecurity. The total area of brackish water shrimp farming is about 660,000 ha, the output is about 950,000 tons/year. Enhance deep processing, diversify products, meet the requirements of both domestic and export markets.

- **Wood, wood products, non-timber forest products:** To focus on developing large timber forests and non-timber forest products, basically meeting the demand for raw materials for the wood processing industry and the forest product market. The output of exploited wood materials is about 45 million m3. To develop industrial parks for wood processing and high-tech forest products in association with concentrated afforestation areas. Developing non-timber forest products, focusing on product groups with strengths such as bamboo and rattan, medicinal herbs, plastic oil, and food.

### ii) Restructuring production by field

#### *ii1) Cultivation field*

Restructuring production in the field of crop production in the direction of reducing the proportion of production value of food crops to about 35%, short-term industrial crops to about 2.1% and perennial industrial crops to about 14.5%, increasing the proportion of fruit trees to 21%, vegetables to 17% to meet the market's consumption demand, contributing to ensuring national food security in the new situation.

Effectively manage and use land specialized in rice cultivation, flexibly converting between staple crops and food crops. Develop organic agriculture and ecological agriculture to meet the needs of the market and serve tourism.

The average growth rate of production value is from 2.0 to 2.2%/year, the average added value is from 1.8 to 2.0%/year; By 2025, the value of products harvested per hectare of arable land will reach about 120 million VND ($5,000).

#### *ii2) Livestock sector*

Changing the structure of livestock herds, aiming to reduce the proportion of pigs, increase the proportion of poultry and herds of cattle. By 2025, the output of carcass meat

of all kinds will reach from 5.0 to 5.5 million tons, of which: Pork will account for 63 to 65%, poultry meat from 26 to 28%, and grass-fed cattle meat will account for from 8 to 10%; the proportion of cattle and poultry that are slaughtered in industrial concentration is about 60% and 40%, respectively; the proportion of processed cattle and poultry meat compared to the total meat production is from 25 to 30%.

The average growth rate of production value is from 4.0 to 5%/year, the average added value is from 3.5 to 4.5%/year. To develop animal husbandry in the direction of industry, applying high technology, circulating livestock at both the scale of farms and professional livestock households, ensuring biosecurity, disease safety, and environmental friendliness.

### iii) Restructuring agricultural production by region

#### *iii1) Northern midland and mountainous region*

To develop key crop production areas with advantages such as fruit trees, tea, medicinal plants, specialty rice, maize, cassava, vegetables and flowers; develop specialty products associated with ecotourism. To step up the development of animal husbandry, with emphasis on raising grass-fed cattle (buffaloes, cows, goats, horses) in association with areas where grass, pigs and poultry are grown; breed and develop specialty and indigenous livestock with high economic value. Protect and develop natural forests, protection forests and special-use forests to maintain water sources and protect soil, especially in areas with high risk of erosion. To develop production forests and non-timber forest products on a large scale in association with the development of the wood and forest product processing industry. To develop culture of cold-water aquatic species (salmon, sturgeon...), traditional fish; to promote aquaculture in irrigation reservoirs, hydropower plants and in water areas along rivers and streams in association with conservation and development of rare and precious resources.

#### *iii2) The Red River Delta region*

To develop intensive and high-tech production; expanding the area of quality rice; develop vegetables, flowers, ornamental plants, fruit trees; review and convert inefficient rice cultivation areas to more economically efficient crops, livestock and aquaculture. To develop animal husbandry applying high technology, focusing on main raising subjects which are pigs, poultry and cows; make key investments in building a number of seed production and trading establishments with high quality and economic efficiency. Closely protect and improve the quality of special-use forests, urban protection, coastal protection. Promote the planting of scattered trees, improve the environmental landscape and partially meet the demand for domestic timber. To develop concentrated aquaculture in coastal areas with marine fish, shrimp, mollusks (boring, clams, oysters, clams, worms, abalone, pearls), seaweed; raising freshwater aquatic species (tilapia, traditional fish). Renovate the structure of the fishing industry, effectively develop the fishing professions associated with the fishing grounds of the Gulf of Tonkin and the mouth of the bay.

### *iii3) North Central region*

Changing the crop structure to avoid the impact of natural disasters; forming concentrated production areas of citrus fruit trees, peanuts, sugarcane, developing specialty agricultural products, medicinal plants associated with geographical indications of localities. To develop dairy cow, pig and poultry raising towards high technology and closed value chain. To develop material afforestation with a certificate of sustainable forest management; combine exploitation with deep processing of wood products and non-timber forest products. Protect and improve the quality of watershed protection forests and coastal forests against flying sand, waves and erosion; biodiversity conservation. Developing brackish water aquaculture in estuary and coastal areas; intensive farming, high technology, biosecurity on sandy coastal soil; develop marine and freshwater farming in irrigation and hydropower reservoirs. The main cultured objects are shrimp, mollusks, marine fishes, seaweed, grouper, cobia, snapper, pompano... Reasonable organization of exploitation of coastal areas and coastal areas, structural transformation boats, occupations and labor suitable to natural conditions and marine resources.

### *iii4) South Central Coast region*

Develop drought tolerant crops and regional fruit trees (grapes, dragon fruit, mango, apple, watermelon). To form concentrated areas for the production of high-quality rice varieties, meeting the needs of the market. To develop the raising of grass-fed cattle (beef cattle, goats, sheep), pigs and colored chickens in suitable areas, according to the region's potentials and advantages; develop swiftlet farming in some advantageous localities in order to create specialty products with high economic value. To build material afforestation areas associated with the national key wood processing industry; take advantage of having many seaports and convenient transportation to develop the export wood processing industry; protect and develop the coastal protection forest system; develop forms of eco-tourism, cultural and historical tourism. Developing brackish water aquaculture in estuary and coastal areas, shrimp farming on sand, key areas for shrimp seed production. To rationally organize the exploitation of coastal areas and high seas, especially tuna fishing and fin fishing; change the structure of boats, occupations and labor in accordance with natural conditions and marine resources.

| | |
|---|---|
| **HIGHLIGHTS** | • From 2021 to 2025, the MARD has outlined a comprehensive plan, broke down by products, categories, and regions.<br>• For each of those items, there exist specific goals and implemented means of achieving those (potential incentives, lighter regulations, public tenders, etc.). |

## 3. Focus on machinery – a) Overall figures and mechanization situation

The historical progression of mechanization in Vietnam has followed a non-linear trajectory. Initially, there was a relatively high utilization of tractors before 1975. However, in the 1980s, there was a decline in mechanization, which was then followed by a resurgence in the 1990s. The adoption of mechanization varied significantly across different regions of the country. After the economic and social reforms in the late 1980s, the private sector quickly became the primary driver in meeting the increasing demand for agricultural machinery. This involved domestic production of power tillers, the introduction of larger combine harvesters, and the emergence of individual machine owners who provided hiring services. Over time, machinery usage gradually extended from larger farms to smaller ones. However, there are indications that larger farms are gaining a comparative advantage in terms of mechanization.

Vietnam is currently experiencing a severe shortage of agricultural labour as people are shifting towards other industries such as construction, hoping for better income opportunities. This shortage has played a crucial role in the growing reliance on machinery in various agricultural processes. The transition from agriculture to different sectors is particularly noticeable in four regions: the Red River Delta, the North Central and Central Coastal areas, the Mekong River Delta, and the South East.

The scarcity of seasonal agricultural labour is the primary factor driving the adoption of machinery in agriculture, as machines can replace the work done by human laborers. According to the Ministry of Industry and Trade, in 2019, the country witnessed a significant increase in the number of tractors (approximately 48%), combine harvesters (79%), and agricultural dryers (29%). The availability of farm power reached an average of about 2.4 horsepower per hectare of cultivated land. However, compared to countries like Thailand (with four HP/ha), China (eight HP/ha), and Korea (10 HP/ha), Vietnam still lags behind in terms of agricultural equipment levels.

Over the past decade, Vietnam's machinery and equipment sector has experienced significant growth. This is evident from the financial performance of companies operating in this industry, as their net revenue has shown a compound annual growth rate (CAGR) of 14.3 percent between 2010 and 2019. In 2020, there were more than 2,200 specialized companies involved in the production of machinery and equipment in Vietnam, generating a total revenue of $4.6 billion.

Although Vietnam relies on imports for approximately 60 to 70 percent of its agricultural machinery, primarily from China and Japan, there has been notable progress in the domestic manufacturing of agricultural machinery. This growth in the agricultural machinery manufacturing segment has somewhat compensated for the gap between domestic supply and market demand. The import value of key products like tractors, soil preparation, cultivation, and harvesting machines has seen a decline at a CAGR of 13.5 percent from 2016 to 2020.

According to experts in the field, the current market size for agricultural machinery used specifically for rice planting, which represents the largest segment of the industry, is

estimated to be approximately 8,000 billion VND (equivalent to $333 million). This figure includes both new and renovated machines.

Furthermore, despite the growing demand for agricultural machinery, the manufacturing capacities of local agricultural machine producers in Vietnam remain limited. In rural areas of Vietnam, it is noticeable that there are more agricultural machines from foreign brands, particularly those of Japanese origin such as Kubota, Yanmar, and Iseki. Reports indicate that the market share of local manufacturers is only between 15% and 20%.

The widespread adoption of agricultural machines, specifically tractors, has primarily been facilitated by the importation of machines from Japan. Due to the lack of reliable trade data on tractors in Vietnam, this section examines Japan's export data as it is the largest exporter of tractors to Vietnam. Japan began exporting tractors to Vietnam informally during the late-1980s (Authors: Kojima, M. and S. Sakata (2021)). During the 1990s, the annual number of exported tractors had already surpassed the current annual production capacity of VEAM. The export figures have continued to rise steadily, reaching over 10,000 units in 2004 and exceeding 20,000 units in 2011. However, the number declined to below 20,000 units in 2019. A significant portion of the tractors exported to Vietnam are categorized as small-sized machines. In fact, in 2019, 54.8% of the exported tractors, including two-wheel tractors, had a power output of less than 18 kW (equivalent to 24 HP). Furthermore, it is worth noting that the majority of the exported tractors, regardless of their size, are second-hand machines.

| HIGHLIGHTS | • Vietnam farm power availability: 2.4 HP/ha cultivated, which is far behind the average level of equipment for agriculture.<br>• Local companies supplied only 30%-40 % of the demand. The remaining shares of market demand is supplied by imported products.<br>• Tractors segment dominates the market.<br>• The majority of imported tractors are small machines, with 54,8% in 2019 of power less than 24HP. |
|---|---|

## Smart farming

Despite the recent progress of Vietnam in Agriculture, the sector is still facing formidable challenges, and hi-tech (or smart) farming is seen as key to fighting climate change, restructuring the sector, and improving local livelihoods. Vietnam has encouraged the development of smart agriculture with the aim of making breakthroughs in farming productivity and improving the competitive edge of agricultural products in both the domestic and foreign markets.

High technology and high-tech agriculture are terms that can be defined differently in different contexts. From the European perspective, the European Commission defines High Technology Farming as a broad concept that refers to a wide range of new tools such as Robotics, ICT, Big Data, Earth Observation, etc. The synergistic use of these instruments allows the shift to the new paradigm of Sustainable Precision Agriculture (SPF).

In Vietnam, according to Vietnamese law No. 21/2008/QH12 on high technologies agriculture: "High technology means a technology which has a high scientific research and technological development content…".

Smart farming has been increasingly gaining attention in Vietnam over the last few years, starting with the establishment of controlled environments for growing crops in greenhouses. For example, after using greenhouses starting 2009, in 2019, the productivity of Da Lat's agriculture sector had increased nearly 2.5 times. The area of greenhouses in Da Lat is 2,500 hectares, of which 1,700 hectares are used for growing flowers with a production of about 1.5 billion flower branches per year. The remaining area is used for growing other vegetables and fruits.

Vietnam was also the first country selected by the Republic of Korea (RoK) to implement its strategy of supporting countries that are improving their agricultural production. The construction of the Korea-Vietnam smart farm commenced in December 2021, and all equipment and machinery were transported from Korea. The application of new cutting-edge technology is expected to improve the competitiveness of Vietnam's agriculture sector, contributing to the country's sustainable development.

In Vietnam, the primary challenge faced by farmers and rural communities is the lack of information, both in terms of production and other aspects of life. Smart agriculture presents an opportunity for them to improve connectivity with information, enhance production management, bridge geographical distances to some extent, and simplify administrative procedures by directly accessing public services provided by the government for agriculture.

In terms of the benefits of smart agricultural activities, farmers can benefit from accessing a wider range of information to make more informed production decisions. This can lead to reduced production costs, increased labor productivity, improved production efficiency, and decreased environmental pollution. Digital platforms offered by enterprises or the government enable farmers to connect with production input services such as seeds, fertilizers, pesticides, mechanization services, credit loans, digital agricultural extension services, weather forecasting, plant protection services, storage, transportation, harvesting services, and access to information about buyers' needs, market standards, and up-to-date prices. These information sources are gradually collected, accumulated, and compiled into an open database, jointly managed and provided by the Ministry of Agriculture and Rural Development and enterprises, for the benefit of all users. Farm households, farms, cooperatives, and production enterprises can also adopt precision agriculture techniques and automation technologies to optimize various stages of the production process, including fertilization, irrigation, pesticide

treatments, and more, thereby ensuring food safety and reducing environmental pollution with the support of digital platforms.

Another opportunity lies in post-harvest stages, value chain management, traceability from farm to table, and information retrieval for sales through e-commerce platforms provided by enterprises. These platforms can also handle logistics and transportation. With the advancement of digital technologies like blockchain, IoT, AI, developed by Vietnamese enterprises, farmers can access these platforms at a suitable cost.

When it comes to actually implementing these solutions and equipment, however, field feedback is clear: farmers primarily prioritize price and return on investment, with environmental, food safety and traceability considerations taking a back seat.

At any rate, while household farms tend to disappear in favor of larger-scale farms, high-tech crop and livestock farming has been gaining more and more ground in recent years.

*Table 14. Arable area, water yard and cattle head*

| Arable area, water yard and cattle head in high-tech production in HCMC | | | | |
|---|---|---|---|---|
| Sectors | 2010 | 2015 | 2020 | CAGR 2010 - 2020 |
| Vegetables (ha) | 809 | 1,063 | 1,366 | 5.38% |
| Flowers (ha) | 636 | 605 | 898 | 3.51% |
| Pig (heads) | 62,027 | 180,986 | 139,370 | 8.43% |
| Dairy cow (heads) | 12,817 | 40,625 | 26,775 | 7.65% |
| Shrimp (ha) | 409 | 748 | 1,090 | 10.30% |
| Aquarium (ha) | 11 | 30 | 52 | 16.80% |

*Source: "Current Situation and Solutions for High-tech Agriculture Development in Ho Chi Minh City" – Research Paper, 07.10.2021*

In HCMC for example, the number of pigs being raised or processed in high-tech facilities has tripled between 2010 and 2015 (the 2015-2020 figures being somewhat statistically irrelevant due to the 2019 ASF outbreak). In parallel, between 2010 and 2020, the number of hectares dedicated to the high-tech cultivation of vegetables went up 68.8%, a yearly average of 5.38% growth.

By cross-referencing the accounts of local field professionals and researchers in HCMC, we have identified various types of smart equipment and solutions that hold significant potential for agricultural development in the region and, by extension, in Vietnam as a whole.

*Table 15. High-tech applications*

| High-tech applications | | | |
|---|---|---|---|
| **Type** | **Manufacture** | **Preliminary processing and processing** | **Manage** |
| **Vegetables** | - Growing in greenhouses<br>- Hydroponics on substrates<br>- Automatic sensor integrated drip irrigation technology<br>- Temperature recorder | - Packaging products<br>- Technology of sublimation drying, vacuum drying, freeze drying. | - Management by smart vegetable mapping<br>- Traceability software |
| **Orchids** | - Growing on substrates in greenhouses<br>- Drip irrigation technology, sprinkler irrigation with sensor integration<br>- Greenhouse temperature recording device via Bluetooth | - Microbiological treatment<br>- Precision analytical balance<br>- PH meter, temperature meter<br>- Respiratory strength meter<br>- Brix level meter | - Traceability software<br>- Production management |
| **Pigs** | - Using biological padding<br>- Mixed ration calculation software<br>- Air cooling system<br>- Automatic feeder & drinker | - Industrial pig slaughter line (automatic, semi-automatic)<br>- Automatic product packaging line | - Pig management software integrated with automatic control sensors |
| **Dairy cows** | - Combined feeding calculation system<br>- Cooling system<br>- Automated milking machine | - Milk cold storage tank<br>- Automatic canning line | - Dairy cow management software integrated with automatic control sensors |
| **Shrimps** | - Super-intensive shrimp farming in 2 stages in greenhouses<br>- Water treatment technology<br>- Oxygen aerator, blower<br>- Automatic feeding control machines | - Automatic packing line<br>- Vacuum packing<br>- Packaging, product labelling | - Shrimp farm management software |
| **Ornamental fishes** | - Artemia biomass farming technology<br>- Automatic aerator<br>- Water treatment technology<br>- Temperature meter | - Thermometer, cold tub for shipping<br>- Technology for building aquariums. | - Fish hatchery management software |

| HIGHLIGHTS | |
|---|---|
| | • High tech/smart farming is seen as key to aid Vietnamese agriculture to fight climate change, restructure and boost productivity<br>• Other countries, such as South Korea, have already identified Vietnam as a promising playground to showcase smart farming solutions |

| | |
|---|---|
| | • Price of equipment and ROI are the main factors the farmers take into account when using smart equipment and solutions |

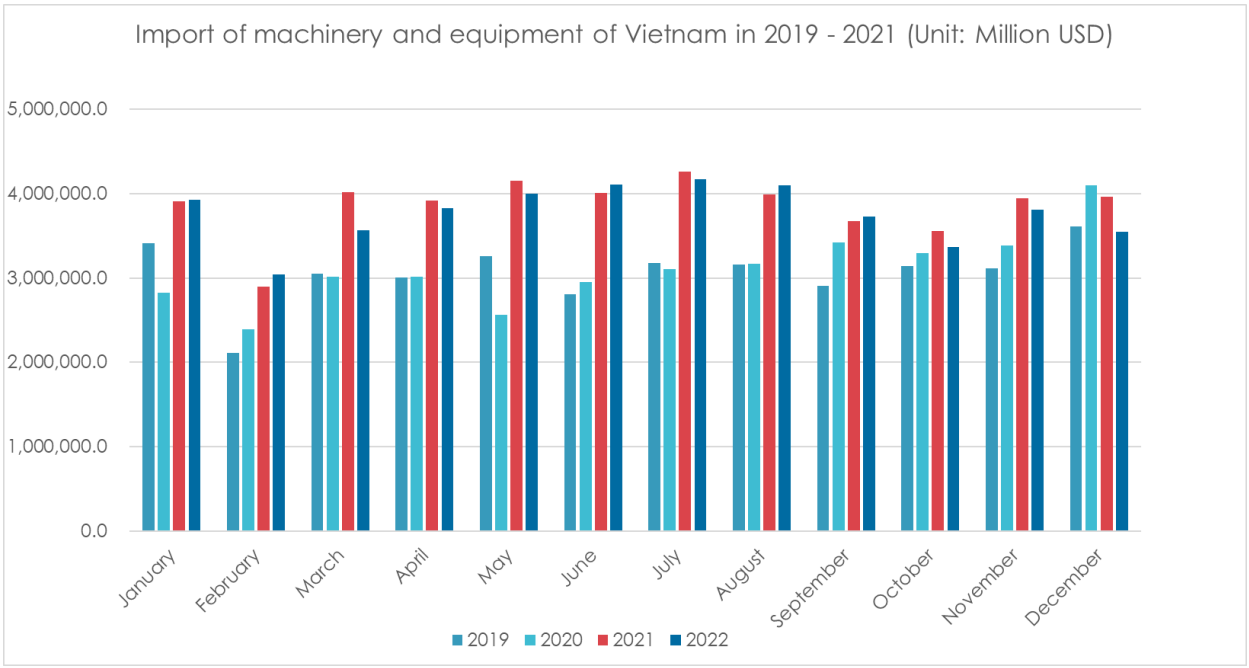
## 3. Focus on machinery – b) Key players – i) Market structure

Despite a fruitful market for equipment and machinery, domestic machinery manufacturers have struggled to meet the demand. According to the Vietnam Association of Mechanical Industry (VAMI), only 32 percent of the demand is supplied by local companies. The remaining 68 percent of market demand is met through imports, as domestic suppliers face challenges with outdated production technology.

Over the past decade, foreign suppliers have maintained a dominant share in the machinery and equipment sector in Vietnam. In 2021, the import value of machinery and equipment reached $46.3 billion, representing a 24.3 percent increase compared to the previous year.

Asian countries, including China, South Korea, Japan, and Taiwan, have been major suppliers of machinery to Vietnam, accounting for approximately 70 percent of foreign sources in the Vietnamese market. Their competitive prices and consumer preferences have contributed to their strong presence. Other notable exporters include ASEAN nations such as Thailand, Malaysia, and Indonesia, as well as Western countries like Germany, the United States, and Italy.

*Figure 63. Import of machinery and equipment of VIetnam in 2019 - 2021 (Unit: Million USD)*




*Source: General Statistic Office*

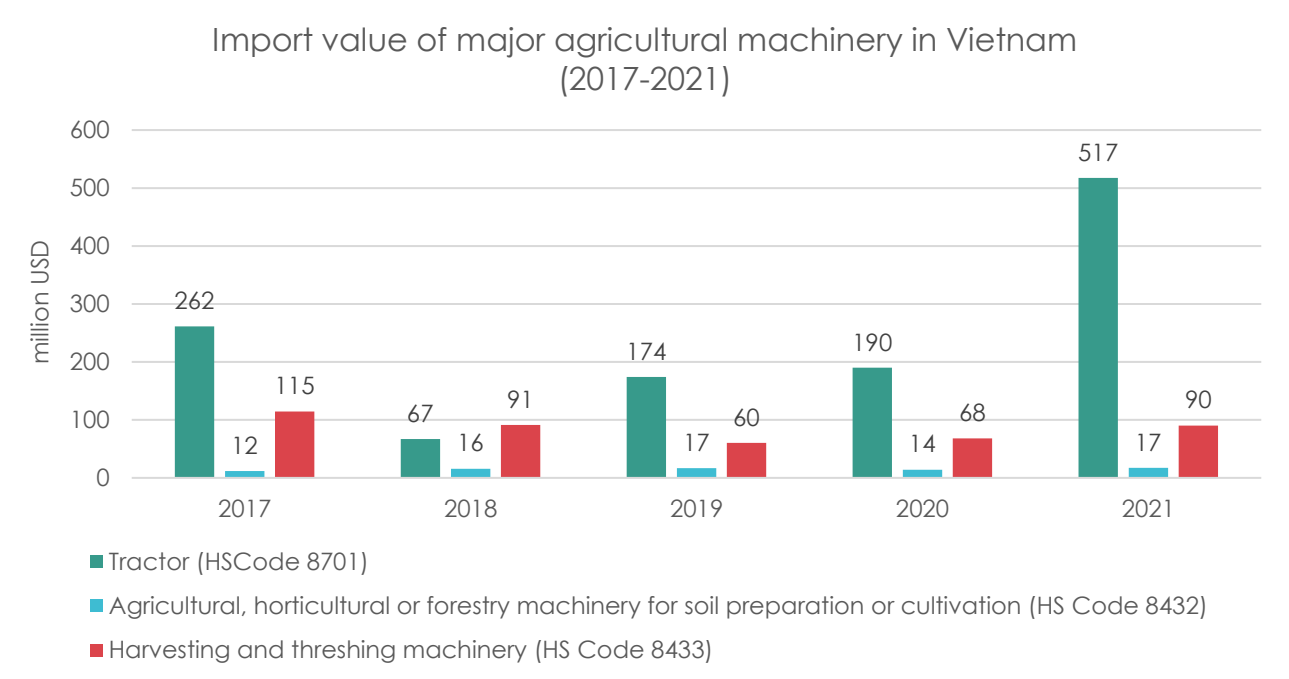
China is by far the largest of those suppliers in Vietnam in the first 9 months of 2021, with import value reaching $18.8 billion, a sharp increase of 63.4% over the same period in 2020, accounting for 53 ,99% of the total import value of this group of goods. Particularly in September 2021, the import of machinery and equipment from this market reached nearly $2.06 billion, down 10.26% compared to August 2021, but still increased quite 21.17 compared to September 2020.

Vietnam's import of machinery, equipment and spare parts from South Korea is the second highest, with an import value of $4.69 billion, up 5.64% over the same period in 2020 and accounting for 13.47% of the total turnover. import this product from the whole country. Imports from the Japanese market accounted for 9.32%, equivalent to a turnover of nearly $3.25 billion, down 1.94% over the same period in 2020. Next are the EU, accounting for 7.26%, ASEAN countries with 5.98%, Taiwan with 2.68%, and finally the US with 2.16%.

Notably, in September 2021, imports of machinery and equipment from some markets increased sharply compared to the same period in 2020 such as: Canada increased by 1,018.8%; Poland increased 555.73%; UAE increased by 366.91%; New Zealand increased by 182.22%; Israel increased 115.01%.

When it comes to agricultural machinery more specifically, the tractor segment is the major segment of the Vietnamese market and accounts for nearly half of the market share.

*Figure 64. Import value of major agricultural machinery in Vietnam (2017-2021)*




*Source: ITC Trade Map – Latest available data*

The chart here shows the dominance of tractors import value from 2017 at $262,2 million to 2021 when it hit $517 million, main from China (see Trade Data below for more details).

The agricultural machinery market in Vietnam is moderately consolidated with few players cornering the majority of the market share. New product launches, partnerships, and acquisitions are the major strategies adopted by the leading companies in the market, in the country. Along with innovations and expansions, investments in R&D and developing novel product portfolios are likely to be crucial strategies in the coming years.

Typical domestic companies are Vietnam Power Machinery and Agricultural Machinery Corporation (VEAM), Hanoi Agricultural Machinery and Agricultural Promotion Company (HAMCO), Vietnam Institute of Agricultural Mechanics and Post-harvest Technology (VIAEP).

While leading FDI enterprises operating in Vietnam include Kubota, Iseki and Yanmar (Japan), CNH Industrial (USA-Italy), CLAAS KGaA GmbH (Germany), Buhler (Switzerland), ShanDong Huaxin Machinery (China), Tong Yang Moolsan (Korea). These businesses mostly depend on their network of agents and distributors to penetrate and expand in the Vietnamese market.

| HIGHLIGHTS | • The domestic machinery manufacturing capacities in Vietnam only account for 32% of market demand<br>• The market is dominated by Asian suppliers, first and foremost China, South Korea, and Japan<br>• Foreign FDI enterprises heavily depend on a network of agents and distributors |
|---|---|

## 3. Focus on machinery – b) Key players – ii) Local & foreign manufacturers

### CLAAS KGaA GmbH

CLAAS KGaA GmbH is a family-owned business that has been manufacturing agricultural engineering equipment since 1913. The company is headquartered in Harsewinkel, Westphalia and is a leading producer of combine harvesters in Europe. CLAAS is also the world leader in self-propelled forage harvesters and has a strong presence in the global market for tractors, agricultural balers, green harvesting machinery and farming information technology. In 2022, the company reported a turnover of €4.9 billion and employed over 12,000 people worldwide.

In Vietnam, CLAAS maintains its presence through Melchers (Vietnam) Company Limited, which is a branch of the Melchers Group. The Melchers Group began its activities in Vietnam in the 1980s and officially inaugurated its first branch in Ho Chi Minh City in 1990. Today, Melchers trading activities involve a broad range of machinery, industrial materials, printing consumables and testing equipment. These business operations are coordinated by regional and local sales managers who are supported by their own After Sales Service Team with specific knowledge in their respective fields.

### Yanmar

Yanmar is a major industrial powerhouse that was established in 1912 in Osaka, Japan by Magokichi Yamaoka. The company supplies diesel engines, farming, and heavy machinery worldwide. Yanmar diesel engines come with industry-leading technology and are highly durable. Yanmar's determination to create new value drives their activities in fields all over the world. At the core of those activities is technology. Yanmar offers solutions and services globally in response to diversifying customer challenges and needs based on their conception of what technology should be: "Realizing The Maximum Prosperity Using The Minimum Resources".

Yanmar has a large portfolio of products including Smart Agriculture, tractors, combine harvesters, rice transplanters, tillers as well as boats, marine engines and marine equipment. John Deere has been powering their machines with Yanmar engines since the 70's.

Yanmar officially stepped into Vietnam in 2013 with the establishment of the REPRESENTATIVE OFFICE OF YANMAR CO., Ltd. In Can Tho city, southern Vietnam. In 2014 they established YANMAR VIETNAM AGRICULTURE MACHINERY CO., LTD. Yanmar's business in Vietnam relies on a network of 27 and growing dealerships, out of which 12 are in the south, 8 in the north, and 7 in the central area.

## Kubota Vietnam

Kubota Vietnam, a subsidiary of Kubota Corporation, is a prominent player in the agricultural machinery industry in Vietnam. Kubota Corporation, headquartered in Japan, has a strong global presence and is known for its high-quality agricultural machinery, engines, construction equipment, and industrial machinery.

Via its 38 official dealers (11 in the north, 17 in the south and 8 in the central area), Kubota Vietnam focuses on providing a wide range of agricultural machinery and equipment tailored to meet the specific needs of Vietnamese farmers. Their product portfolio includes tractors, combine harvesters, rice transplanters, power tillers, and various agricultural implements. These machines are designed to enhance productivity, improve efficiency, and support sustainable farming practices.

With a commitment to technological innovation and customer satisfaction, Kubota Vietnam aims to contribute to the development of Vietnam's agricultural sector. The company emphasizes the use of advanced technologies and precision engineering to deliver reliable and durable machinery that can withstand the demands of Vietnam's diverse agricultural landscape.

Kubota Vietnam not only offers high-performance machinery but also provides comprehensive after-sales services, including maintenance, spare parts, and technical support. This ensures that farmers can maximize the benefits of their Kubota equipment throughout its lifespan.

As a responsible corporate entity, Kubota Vietnam is also actively involved in community engagement initiatives and supports local agricultural development programs. By collaborating with local partners and stakeholders, the company strives to make a positive impact on the agricultural community and contribute to the overall growth of Vietnam's economy.

## Iseki

Iseki & Co., Ltd. is a Japanese manufacturer of agricultural machinery that produces tractors, combine harvesters, rice transplanters, riding mowers, zero-turn mowers, tillers, components, and diesel engines. The company was founded in August 1926 and is the third largest Japanese agricultural machinery manufacturing company.

In Vietnam, Iseki cooperates with the domestic manufacturer VEAM to transfer technology for machinery production. However, Iseki tractors are imported through individual companies as used machines because Iseki does not have any subsidiaries or representative offices in the country. Iseki tractors are known for their high power, durability, fuel efficiency and affordability.

## Veam

VEAM (Vietnam Engine and Agricultural Machinery Corporation) is a leading state-owned enterprise in Vietnam that specializes in manufacturing and distributing engines, agricultural machinery, and related products.

The company was established in 1990, became public in 2016 (with the largest IPO of the Vietnamese market this same year), and has since played a significant role in Vietnam's industrial and agricultural sectors.

With its 2000 employees, VEAM operates in various business segments, including the production of engines for automobiles, motorcycles, and other machinery. They also manufacture and distribute agricultural machinery such as tractors, combine harvesters, and other equipment used in farming activities.

As a state-owned enterprise, VEAM has strong government support and plays a crucial role in promoting domestic manufacturing and technology development in Vietnam. The company has a wide distribution network across the country, ensuring its products reach customers in both urban and rural areas.

In addition to its manufacturing activities, VEAM also engages in research and development to enhance product quality and meet international standards. The company aims to contribute to the modernization and mechanization of Vietnam's agricultural sector while also meeting the demands of the domestic and international markets.

VEAM has been actively involved in collaborations and partnerships with foreign companies, allowing for the transfer of technology and expertise. This helps them stay abreast of the latest industry trends and advancements, enabling them to produce competitive and innovative products.

## John Deere

John Deere is an American corporation that has been manufacturing agricultural, construction, and forestry machinery since 1837. The company was founded by John Deere, who invented one of the first steel plows that could till American Midwest prairie soil without clogging. The following year, Deere established a business to manufacture and market the plow, and his own company was incorporated as Deere & Company in 1868.

In 1918, John Deere entered the tractor business with two models, the Waterloo Boy and the John Deere Tractor. To support customers during the Great Depression, Deere took on farmer notes and extended payment terms, strengthening loyalty for generations to come.

Today, John Deere is one of the largest agricultural machinery manufacturers in the world. The company's business model is based on providing high-quality products and services

to customers while maintaining a strong commitment to sustainability and environmental responsibility.

John Deere & Yanmar: Yanmar entered into an arrangement with John Deere and began building several utility tractor models in the early 1980s for Deere. Yanmar continues to be an engine supplier for Deere's utility tractors. John Deere contracts Yanmar to build its utility tractor engines because they are the world's best small diesel engine manufacturers.

John Deer & TTC: TTC is considered one of the leading companies in Vietnam's sugarcane industry that invests and develops mechanization with deep plowing equipment and tractors with large capacity from 90HP to 245HP. These machines are capable of plowing at least 40 cm deep on many different terrains. Deep plowing has a significant effect on helping sugarcane plants overcome weather changes, laying a solid foundation for plants to stand firmly, grow and absorb nutrients well.

In Vietnam, TTC has been a customer of John Deere for many years. At the 2016-2017 annual summary conference and the implementation of tasks - the 2017-2018 annual plan, TTC's sugar industry and John Deere conducted the formal signing ceremony of the agency contract.

TTC Group has been in operation for over 41 years and has grown from a small business production base to a corporation with a scale of 10,000 people, charter capital of VND 18,800 billion (around 800 million USD) and total assets reaching VND 65,441 billion (2.8 billion USD). The corporation has been present in four main fields: Real estate (with a focus on tourism-resort development, commercial development, leasing and civil development), energy (with a focus on developing hydroelectric power plants and thermal power plants), agriculture (with a focus on sugar cane and agricultural products), and tourism.

### TATA International Vietnam

Tata Group is a global enterprise that was founded in 1868 and is headquartered in India. It comprises over 105 independent operating companies and operates in more than 150 countries across six continents. The company's mission is to enhance the quality of life of the communities it serves globally through long-term value creation based on building trust with customers.

As a subsidiary of Tata Group, Tata International Ltd is a global trading company with a distribution network, offices and subsidiaries present in 39 countries across Africa, Asia, Europe and America.

In Vietnam, Tata International Vietnam was established in 2016 with its main office located in Ho Chi Minh City. The company has a branch in Can Tho and an extensive network of agents throughout the Mekong Delta provinces. Tata International Vietnam specializes in supplying agricultural mechanical equipment and spare parts under the 3S form (including business, technical services and spare parts). The company is also the exclusive distributor in Vietnam for brands from experts in industrial engines, specialized equipment

and mechanization of agriculture such as Massey Ferguson, Kuhn, and other leading brands.

| HIGHLIGHTS | • Main foreign players in the Vietnamese agriculture machinery market are Japanese Yanmar and Kubota who have their own distribution networks. Iseki has close connections to national VEAM Corp, but only second-hand machines from them are sold in Vietnam through individual importers and distributors channel.<br>• The Western players' presence, such as John Deere and CLAAS, remains limited: the machines are often perceived as being too expensive, or ill-suited for the main crops in Vietnam (paddy) and the adverse effects of the tropical weather. |
|---|---|

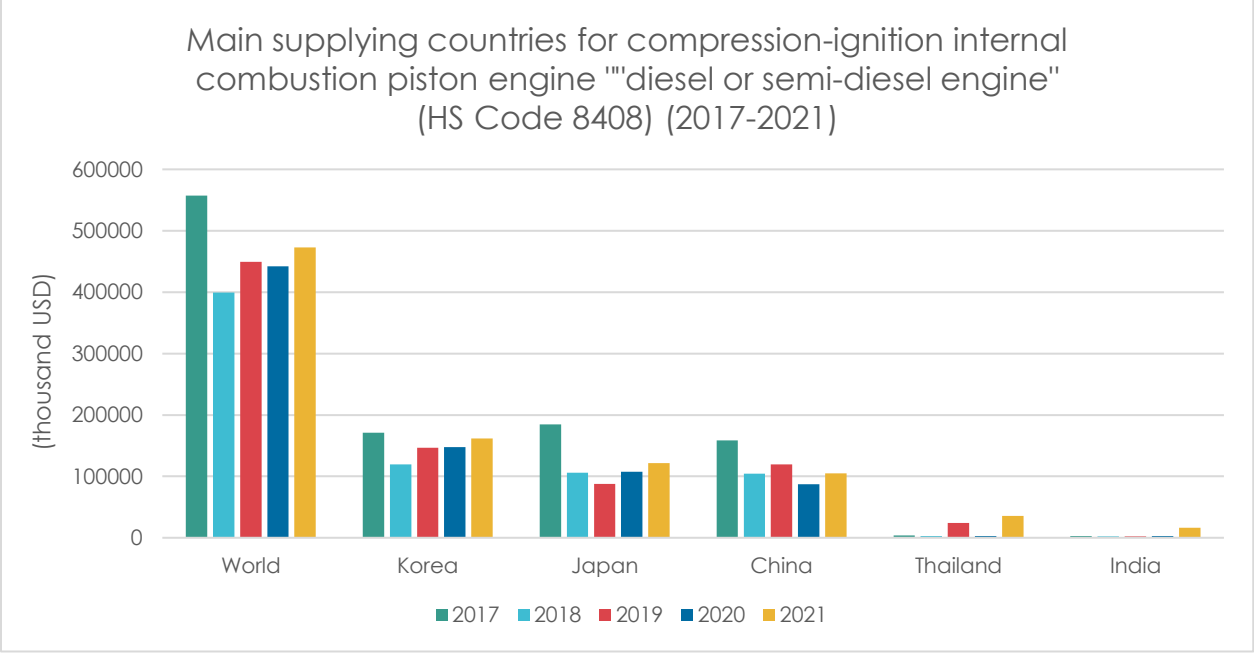
## 3. Focus on machinery – b) Key players – iii) Importers

See Appendix 3 for the list of main Vietnamese companies who import products on 5 or more HS Code among the HS Code list described in Appendix 1.

## 3. Focus on machinery – b) Key players – iv) Import data

This section analyses the main products imported by Vietnam and the main partners, related to the overall 4-digit HS Codes found in the list of Appendix 1. For the comprehensive 6-digits data, please refer to Appendix 2.

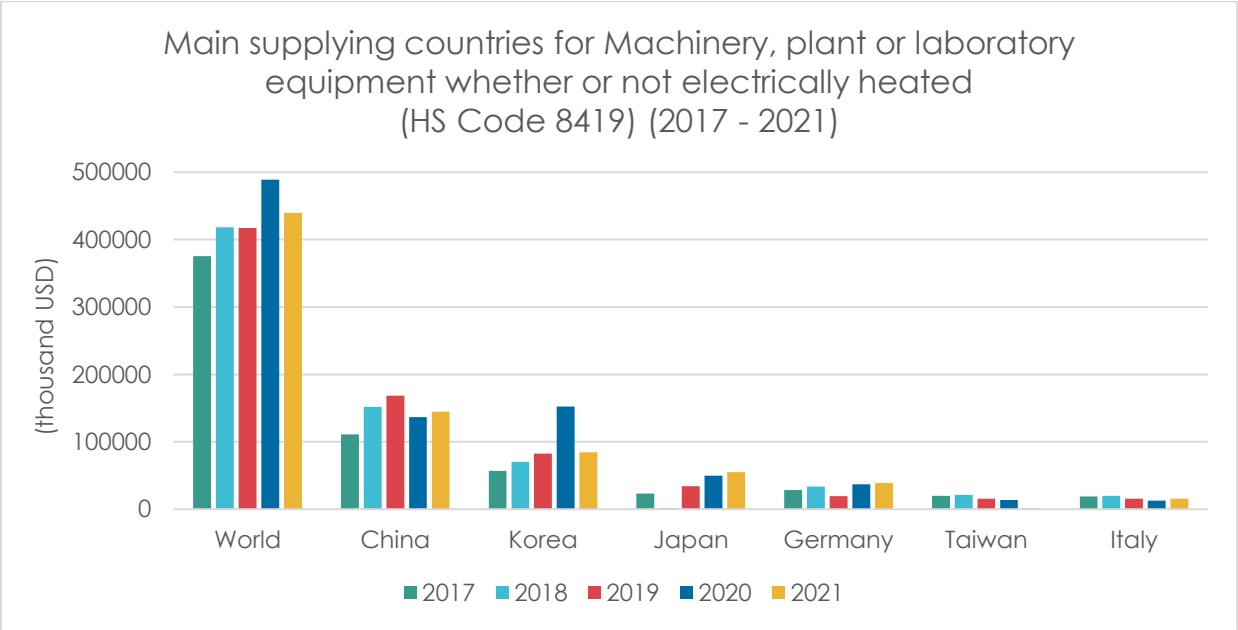
*Figure 65. HS8408_Supplying countries to Vietnam*




*Source: ITC Trade Map – Latest available data*

The majority of internal combustion engines used for transportation and agriculture are imported from Asian countries. The Republic of Korea has overtaken Japan in 2017 as the main provider in value, standing in 2021 at around $160 million of exports to Vietnam. From 2018 onwards, China and Japan have been neck to neck for the second place. Although Thailand and India's export value to Vietnam in this category has seen some development those past few years, it still remains limited in 2021, with respectively $35.7 million and $16.1 million. Italy is ranking 12th supplier in 2021, with around $1.3 million exported to Vietnam, overall stable compared to the previous years.

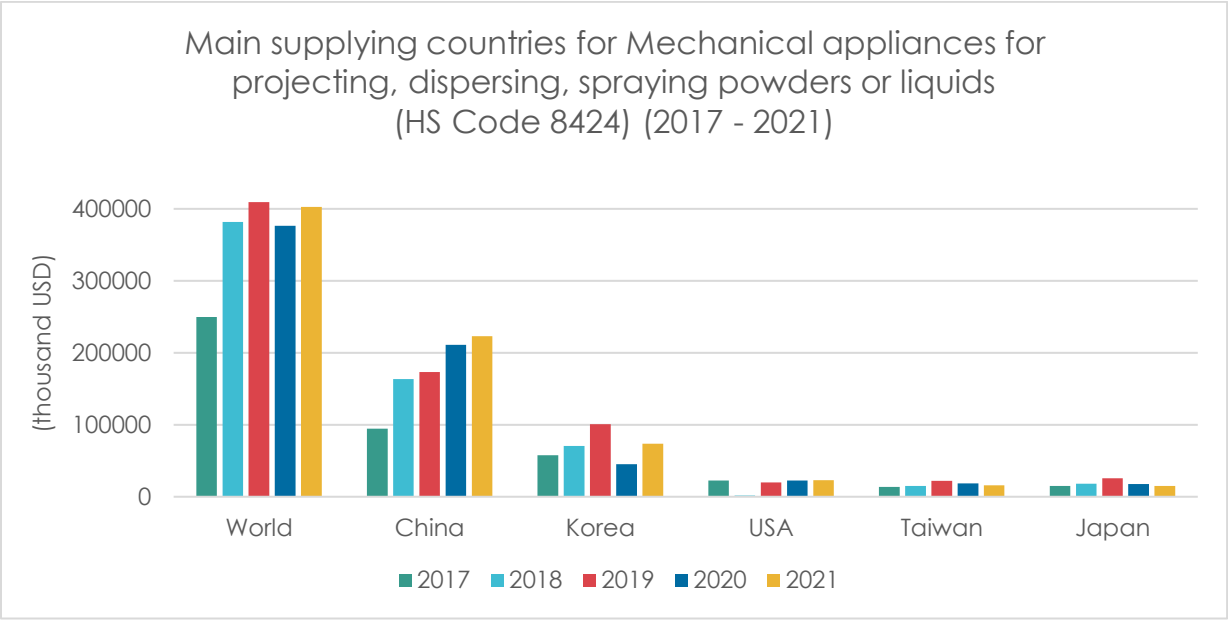
*Figure 66. HS8419_Supplying countries to Vietnam*




*Source: ITC Trade Map – Latest available data*

China is leading in exporting products for treatment involving heat change with import values fluctuating around $140 million. South Korea has been steadily increasing its exports, from $57 million in 2017 to around $85 million in 2021, with a 2017-spike to nearly $152 million in 2020. Japan and Germany have kept about the same export value throughout the years, close to $40 million. After Taiwan, Italy is the 6th exporter in this category, with stable values between 2017 and 2021, fluctuating between $15 and $20 million.

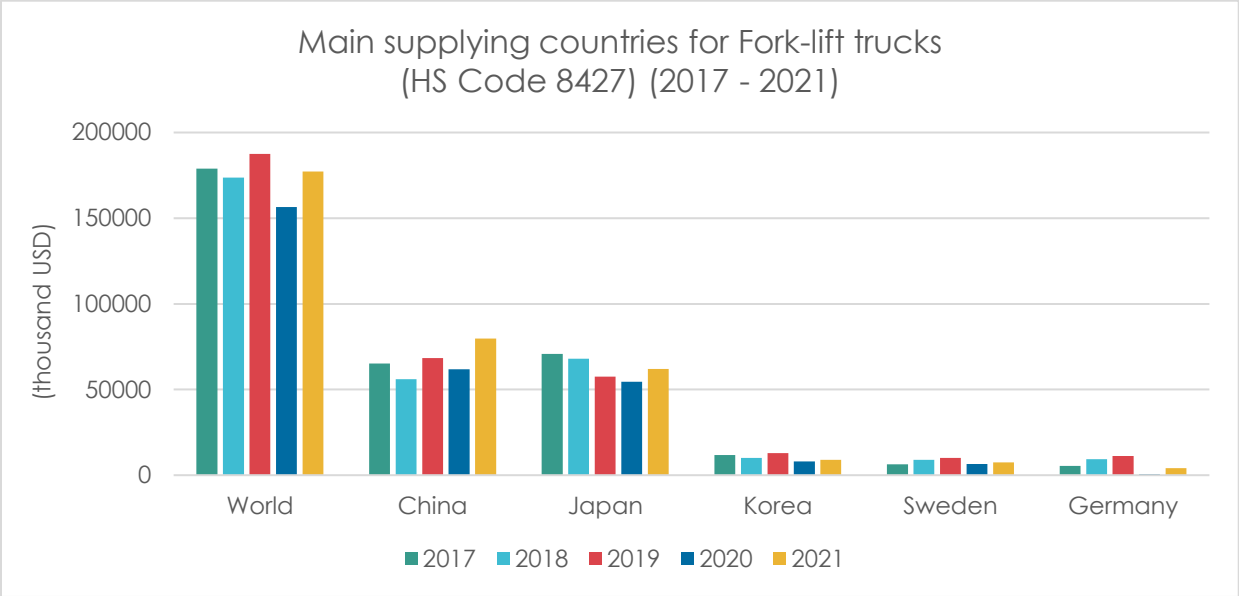
*Figure 67. HS8424_Supplying countries to Vietnam*




*Source: ITC Trade Map – Latest available data*

China is the indisputable leader in this category, with ever-increasing export value, reaching an all-time high $220 million in 2021. South Korea is the runner up after China, with $73.5 million exported that same year. The USA, Taiwan and Japan find themselves in the third tier, with export value kept overall under the $25 million mark. In Europe, Germany and Italy lead in this export category, ranking respectively 6th and 7th, with $7.9 and $5.5 million of exported value.

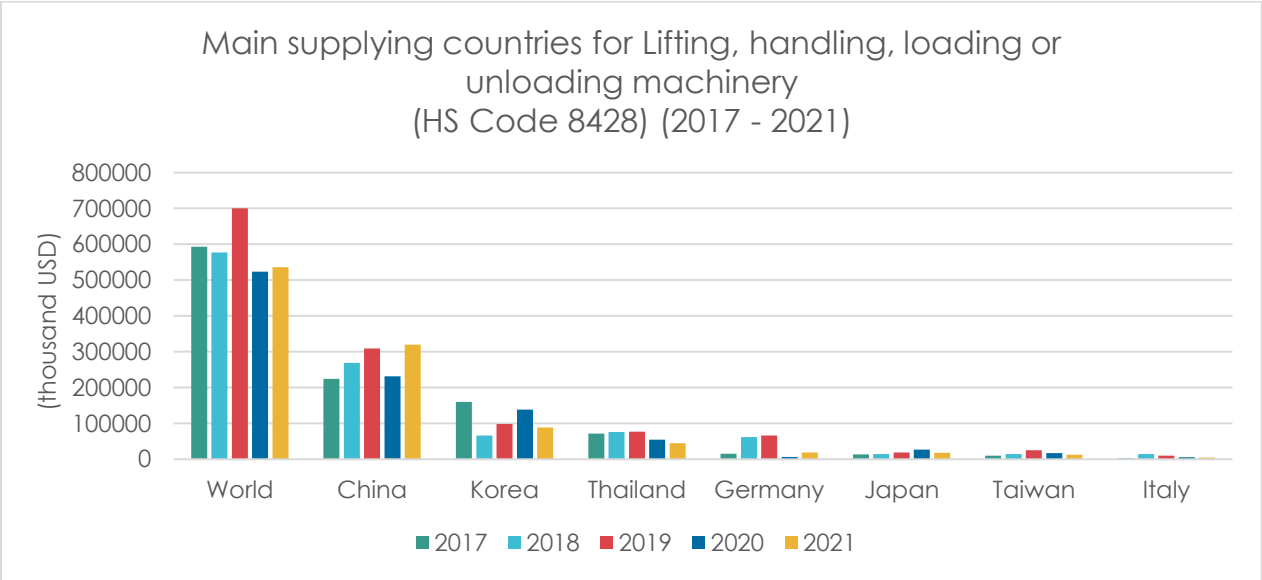
*Figure 68. HS8427_Supplying countries to Vietnam*




*Source: ITC Trade Map – Latest available data*

Fork-lift trucks imported by Vietnam are mainly coming from China and Japan. While China sees an increasing trend (+22.4% in 5 years), Japan is slowly losing ground (-12.5% in 5 years). South Korea, Sweden, Germany and the US are lagging, with export values fluctuating around under the $10 million mark. Italy is ranking 10th with $1.2 million of export value in 2021.

*Figure 69. HS8428_Supplying countries to Vietnam*

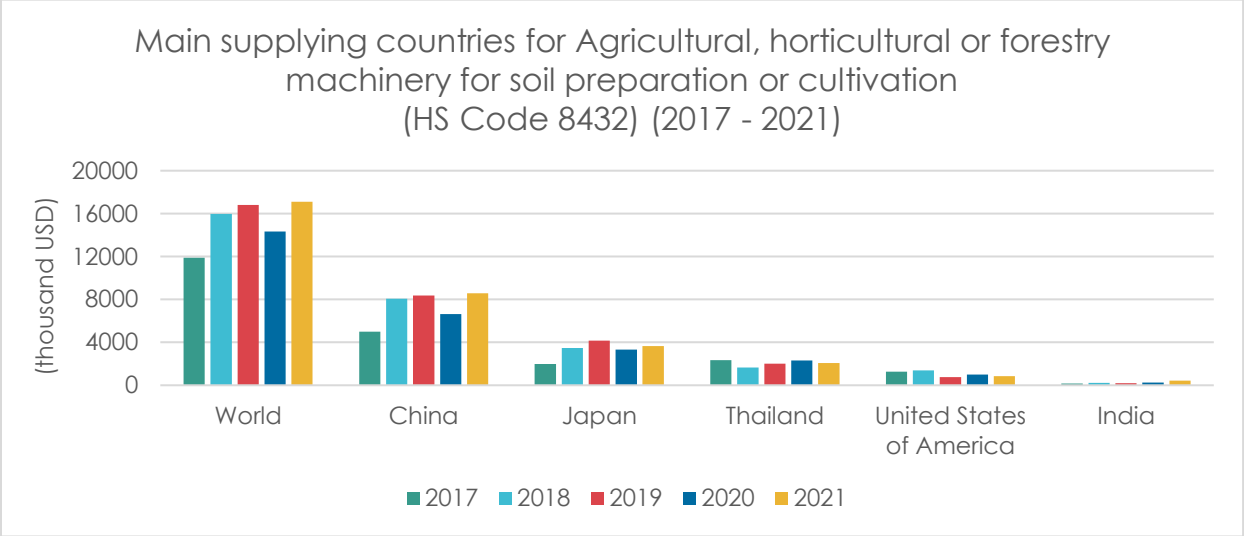



*Source: ITC Trade Map – Latest available data*

In this category, China dominates the market, with close to 60% of the market shares in 2021, standing at $319 million of exported value to Vietnam. South Korea and Thailand are

lagging at the 2nd and 3rd place, with respectively $89 and $45 million. Italy ranks 7th, with $4.5 million in 2021.

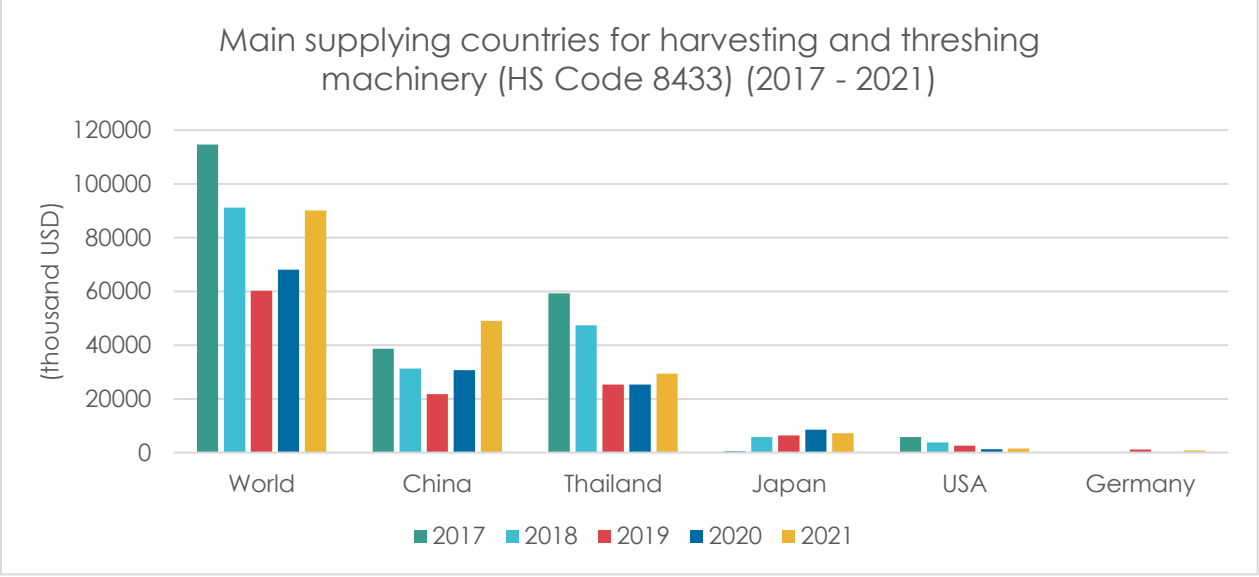
*Figure 70. HS8432_Supplying countries to Vietnam*




*Source: ITC Trade Map – Latest available data*

Overall, China is leading the exporting countries of machinery for soil preparation with an increasing trend in export value, reaching $8.56 million in 2021. The runner-up Japan saw highest export value in 2019 at around $4.2 million, while Thailand and the USA each export roughly around $2 million and $1 million respectively. Italy ranks 12th in this category, with yearly marginal values oscillating between $60,000 and $120,000 since 2017.

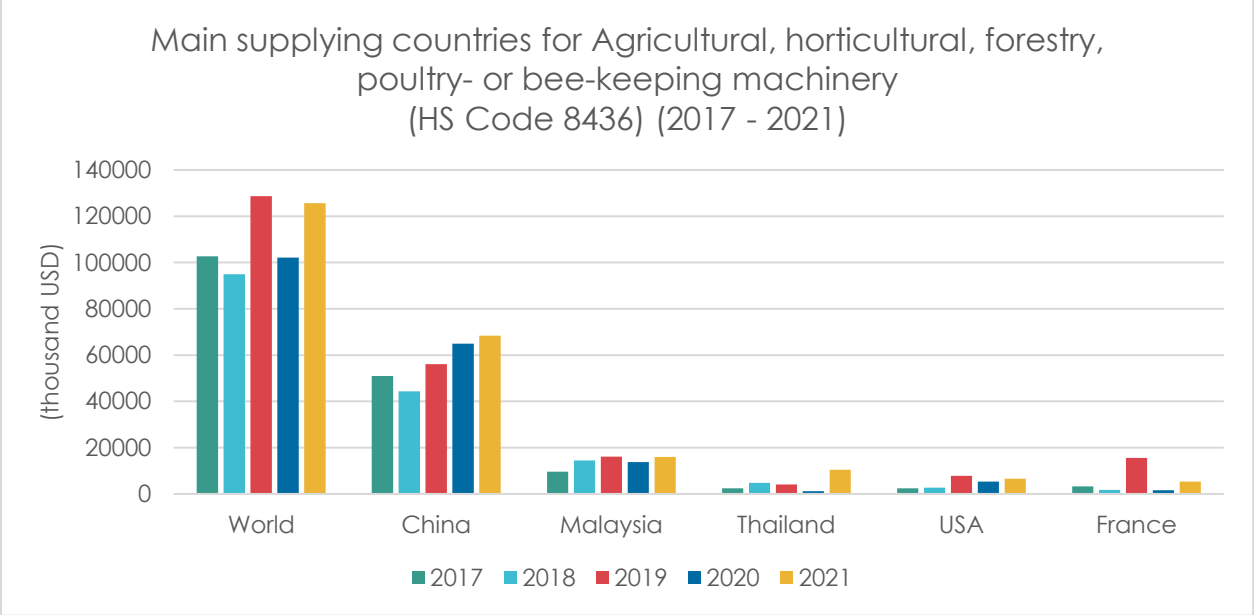
*Figure 71. HS8433_Supplying countries to Vietnam*




*Source: ITC Trade Map – Latest available data*

Thailand used to be the main provider of harvesting and threshing machinery to Vietnam, with more than half (51.7%) of the total imported value, until it got overtaken by China in 2020. In 2021, China exported value stands at more than $49 million, almost double the Thai values. Japan and the USA comes after, the latter having been consistently losing market shares with values divided by 4 from 2017 to 2021. Italy is Vietnam's 10th supplier of harvesting and threshing machinery, with $200,000 exported in 2021.

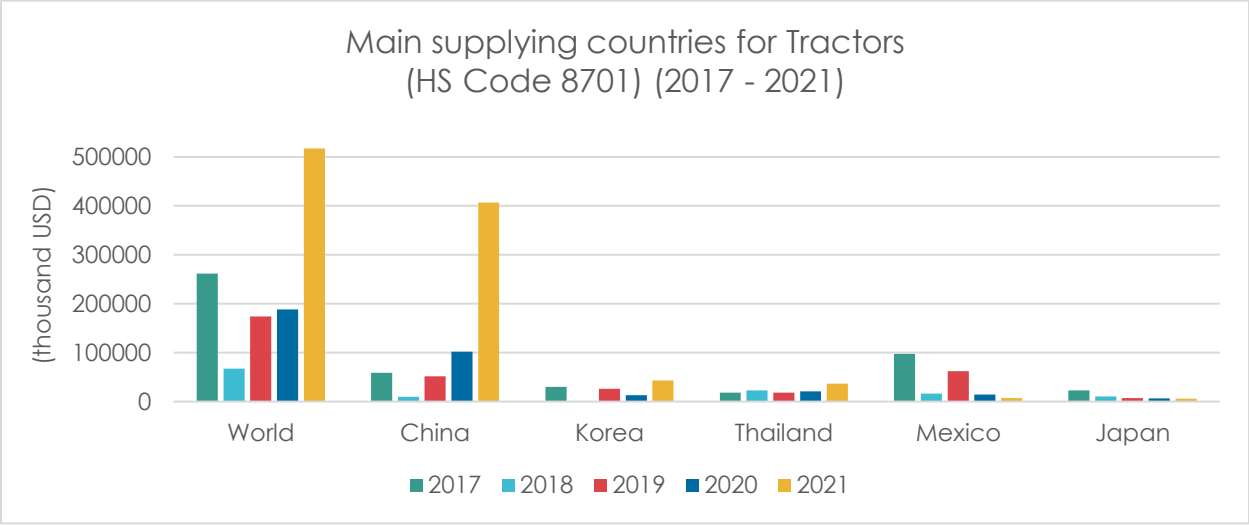
*Figure 72. HS8436_Supplying countries to Vietnam*




*Source: ITC Trade Map – Latest available data*

China holds the largest market share as the main provider of machinery and equipment to Vietnam, accounting for 54.4% of the total value. China's exports in this category have shown consistent growth since 2018, with a significant increase of 50% between 2018 and 2021. Malaysia consistently remains the second-largest supplier, with an average market share of around 10%. Thailand, the United States, and France occupied the third, fourth, and fifth positions, respectively, in 2021. However, their export values to Vietnam have been subject to considerable fluctuations from year to year, making their contributions to the market somewhat unpredictable.

*Figure 73. HS8701_Supplying countries to Vietnam*




*Source: ITC Trade Map – Latest available data*

Overall tractors import in Vietnam have skyrocketed after the pandemic, mainly from China which now covers close to 80% of the trade, followed by Korea and Thailand. Italy is ranking 23rd, with in average a marginal $30,000 of yearly trade over the last five years.

| | |
|---|---|
| **HIGHLIGHTS** | • Out of all machinery types, tractors import value is the greatest with more than $500 million in 2021.<br>• Overall, China leads the agricultural machinery export to Vietnam market in all considered types.<br>• On the global HS 84 Codes considered in this section, Italy is present in the top 20 suppliers to Vietnam, often ranking 2nd or 3rd EU partner country. |

## 3. Focus on machinery – c) Specific entry barriers – i) Certification and standards + Customs duties and procedures

**Certification to Import Agricultural machinery**

1. Customs declaration
2. Commercial Invoice
3. Packing List (Goods packing slip)
4. Commercial Contract
5. Bill of Landing
6. C/O (Certificate of Origin)
7. Manufacturer's factory certificate. The paper clearly states the year of manufacture, the serial number of the machine, the production standard and the type of the equipment.

**Quality check for imported agricultural machinery**

- Following Circular 28/2017/TT-BNNPTNT, **agricultural machinery group is not subjected for quality inspection**. Therefore, 100% new agricultural machinery products are currently not subject to quality inspection when imported.
- Pursuant to Article 6 - Circular 23/2015/TT-BKHCN dated November 13, 201: **Regulating the import of used machinery, equipment and technological lines**: enterprises are allowed to import used agricultural machines with equipment age not more than 10 YEARS.
  Pursuant Circular 23/2015/TT-BKHCN on **customs procedures for used goods and equipment**: When importing used agricultural machinery, enterprises can bring their goods to the warehouse for storage and then carry out the age inspection of the machinery through designated units such as Vinacontrol, Vietnamcontrol, BaoTin, etc. provide certificates of age assessment of machinery and equipment.
- Agricultural machinery is entitled to **0% value-added tax.**

## 3. Focus on machinery – c) Specific entry barriers – ii) Customs duties and procedures

See appendix 4 for the customs duties of agricultural-machinery-related HS Codes within the frame if the EU–Vietnam Free Trade Agreement (EVFTA).

**ii1) Import Duty Exemption**

Exemption of import duty for input material for agricultural production (such as plant varieties; animal breeds, etc.), imported goods to create fixed assets of projects investing in priority industries or investment encouraged locations according to Article 16 of the Law on Export and Import Duties.

**ii2) Standard to Import Agricultural machinery**

Manufacturers wanting to import machinery and equipment for production in Vietnam should be aware of the following regulations:

- The imported machinery must be manufactured in accordance with Vietnam's National Technical Regulation (QCVN) or Vietnam's Standard (TCVN) or Standards of G7 countries regarding safety, energy saving and environmental protection;
- Imported machinery should have at least 85 percent of original capacity and energy consumption should not be up by more than 15 percent of original design;
- The technology used must be in use in at least three production facilities in a member state of the Organization for Economic Cooperation and Development (OECD); and
- Machinery that is obsolete, of poor quality, and environmentally damaging cannot be imported.

**ii3) Certification to Import Used Agricultural machinery**

Businesses that want to import used machinery must prepare **dossiers** that include:

- Copy of business registration certificate;
- Inspection certificate; and
- Originate certificate of manufacturer with year the equipment was made.

Businesses should be aware that customs authorities only process customs clearances for the imported machinery when all import dossiers are complete, valid, and meet necessary requirements.

The government has also directed the Ministry of Science and Technology to publish a list of old machinery and equipment whose import is banned.

## 3. Focus on machinery – c) Specific entry barriers – iii) IP

Over the last decades, Vietnam has been taking significant steps to strengthen intellectual property rights (IPRs) through legislative measures. The Law on Intellectual Property Rights (IPRs) was passed by Vietnam's National Assembly in 2005, and later amended and supplemented in 2009.

Recognizing the importance of robust IPR protection, Vietnam's government implemented stricter administrative sanctions for violations of industrial property rights in September 2010. This move was prompted by Vietnam's entry into the Bilateral Trade Agreement (BTA) with the United States and its membership in the World Trade Organization (WTO). These actions led to important changes in IP regulations within the country.

In addition to domestic IP legislation, Vietnam actively participates in various international IP conventions. This includes being a party to the Paris Convention for the Protection of Industrial Property, the Berne Convention for the Protection of Literary and Artistic Works, the Rome Convention, the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, the World Intellectual Property Organization, the Patent Cooperation Treaty, the Madrid Protocol, and the recently signed Hague agreement.

Vietnam's membership in the World Trade Organization (WTO) since 2007 has compelled the country to adhere to the minimum intellectual property (IP) standards set by the organization. Consequently, Vietnam's IP system exhibits many similarities to that of more developed nations. To effectively manage and protect IP rights, Vietnam has divided its IP system into three main areas: copyright and related rights, rights to plant varieties, and most importantly industrial property rights.

Those industrial property rights are overseen by the National Office of Intellectual Property (NOIP). As the primary coordinator, the NOIP operates under the Ministry of Science and Technology and assumes the crucial role of exercising state management and providing IP-related services.

The NOIP's responsibilities encompass the registration of industrial designs, trademarks, brand names, and other industrial property rights. It also conducts basic legal evaluations to resolve intellectual property disputes. By effectively organizing and overseeing these functions, the NOIP plays a vital role in maintaining a well-functioning IP system in Vietnam.

Regarding patents, Vietnam's related law operates under the "first to file" principle. The country makes a distinction between patents and utility solution patents:

- Invention patents have maximum protection of 20 years;
- Utility patents have maximum protection of 10 years; and
- Industrial designs have maximum protection of five years (however, this is renewable for two consecutive periods of five years).

Individual patent registrations (such as industrial designs and inventions) must take place in Vietnam. However, for patent rights for things other than industrial designs, applications can be handled by the Patent Cooperation Treaty.

Companies in Vietnam have three options when it comes to enforcing their intellectual property rights: administrative action, civil court action, and criminal prosecution. In most cases, IP disputes are resolved through administrative action, wherein government authorities can issue warnings, impose fines, seize or destroy counterfeit goods, and take other appropriate measures.

However, it is worth noting that Vietnam's government agencies have faced challenges in keeping up with the evolving IP laws. Therefore, it is often advisable to focus on defensive strategies to minimize the need for offensive actions. This includes ensuring that employment contracts have clear clauses pertaining to IP, monitoring for production overruns that could indicate unauthorized sales, engaging with other foreign businesses in the same industry to learn best practices, and registering your IP rights.

As implementation of the European Union-Vietnam Free Trade Agreement (EVFTA) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) are still ongoing, there is an increasing requirement for Vietnam to strengthen its IP protection laws. These agreements are driving Vietnam to meet higher standards of IP rights and provide enhanced safeguards for intellectual property.

For agriculture equipment and machinery company, two types of IP rights are the most important:

- **Patents:**

  In countries where a distinction is made between invention patents and utility solution patents, the main difference lies in the level of "inventiveness" required. Utility solution patents do not need to meet the same inventiveness standard as invention patents, leading to a different registration process. Additionally, there are variations in the duration of protection. Vietnam follows a "first-to-file" system, similar to many Asian and EU countries. This means that the individual or entity who files a patent application first in Vietnam will be granted the rights, regardless of whether they were the original inventor or user of the patented creation. Therefore, it is crucial to register your intellectual property (IP) in Vietnam before engaging in business activities and be cautious about sharing sensitive information with third parties. If multiple applications are filed for the same invention or industrial design, the applicants must reach an agreement to proceed with only one application. Failure to reach an agreement will result in the rejection of all applications.

  Vietnam is a party to the Paris Convention for the Protection of Industrial Property, granting applicants of invention patents and utility solution patents the "right of priority" if the same filing has been made within the last 12 months in any other convention member country. This allows patent owners to have a 12-month window to decide which additional countries they want to register in after the initial filing in their home

country, without compromising the protection granted from the original filing date. Vietnam has been a member of the Patent Cooperation Treaty (PCT) since 1993, which facilitates a streamlined application process and potentially reduces the requirements and approval time for invention patents and utility solution patents if a patent has already been granted elsewhere. Applications should be submitted through the Intellectual Property Office of Vietnam.

- **Industrial design:**

Industrial design patents are granted for products with a distinct shape, pattern, or color, as long as they maintain novelty and industrial applicability.

There also, Vietnam operates under a "first-to-file" system for industrial design patents. This means that the individual or entity who files an industrial design patent application first in Vietnam will be granted the rights, regardless of whether they were the original designer or user of the creation. If a potential partner or third party files your industrial design patent in Vietnam before you do, they will become the legal owner of your intellectual property (IP).

On September 30, 2019, the Government of Vietnam joined the Geneva Act (1999) of the Hague Agreement for the protection of designs. This allows companies and designers from Europe to utilize the Hague System to protect their industrial designs in Vietnam.

Being a member of the Paris Convention for the Protection of Industrial Property, applicants for industrial design patents in Vietnam are entitled to a "right of priority" if the same filing has been made within the last 6 months in any other convention member country. This allows patent owners to have a 6-month window after the initial filing in their home country to decide which additional countries they want to register in before proceeding with international filings. The eventual protection granted in Vietnam (or other countries) within this time limit will be measured from the original filing date in the home country and will override any other filings made in Vietnam during that period.

However, there are certain subject matters that are not protected as industrial design patents in Vietnam. These include the appearance of a product dictated by its technical features, the appearance of civil or industrial construction works, and the shape of a product that is not visible during its use.

## 3. Focus on machinery – d) Professional and industry resources: Industry trade fairs, Specialized magazines and Associations

### i) Industry trade fairs

**1. GTE (GROWTECHEXPO)**

*Aim*: The Int'l Exhibition Machineries, Equipment & Technology for Agriculture

*Website*: https://growtech.vn/

*Location*: Vietnam

*Host:*

- Ministry of Industry and Trade (MOIT)
- Ministry of Science and Technology (MOST)
- Ministry of Agriculture and Rural Development (MARD)

**2. Agroviet**

Aim: Promoting agriculture trade, business cooperation and investment in Vietnam agriculture.

*Website*: https://agroviet.com.vn/

*Location*: Vietnam

*Host:* Vietnam Trade Promotion Center for Agriculture (AGRITRADE)

**3. Exhibition of Seeds and Hi-tech Agriculture in Ho Chi Minh City**

*Aim*: Connecting and cooperating with the city's agricultural sector with the agricultural sector of the provinces and cities

*Website*: N/A

*Location*: Vietnam

*Host:* Department of Agriculture and Rural Development of Ho Chi Minh City

**4. Vietfish**

*Aim*: Promoting business opportunities in the following areas: Seafood, Devices, Aquaculture and services

*Website*: https://vietfish.com.vn

*Location*: Vietnam

*Host:* Vietnam Association of Seafood Exporters and Producers (VASEP)

**5. Aquaculture Vietnam**

*Aim*: This one-stop exhibition will support the entire food value chain in aquaculture, fishery and seafood industry and is expected to attract more than 100 exhibitors and 4,000 trade visitors.

*Website*: https://aquafisheriesexpo.com/en/aquaculture-vietnam/

*Location*: Vietnam

*Host:* Informa Markets

**6. AgroChemEx Vietnam**

*Aim*: Promoting business opportunities in the following areas: Products, equipment, machines and technology of fertilizer industry;

*Website*: http://www.agrochemex.net/zq/vietnam.htm

*Location*: Vietnam

*Host:*

- Ming Wei Exhibition Company (VEAS)
- China Plant Protection Industry Association (CCPIA)

**7. VietStock Expo and Forum**

*Aim*: Promoting business opportunities in the Livestock, Animal Feed & Meat Processing

*Website*: https://vietstock.org

*Location*: Vietnam

*Host:* Informa Markets

**8. VIV Asia**

*Aim*: Promoting business opportunities in the livestock, animal protein production supply chain, from Feed to Food, covering all animal species.

*Website*: https://www.vivasia.nl/

*Location*: Asia
*Host:* VNU Exhibitions Europe

**9. Seafood Expo Asia**

*Aim*: trade event where buyers and suppliers of seafood from around the world come together to network and conduct business in the lucrative Asia markets.

*Website*: https://www.seafoodexpo.com/asia

*Location*: Asia

*Host:*

- Seafood Expo North America/Seafood Processing North America
- Seafood Expo Global/Seafood Processing Global

**10. ILDEX Philippines**

*Aim*: International livestock, dairy, meat processing and aquaculture exposition

*Website*: https://ildex-philippines.com/

*Location*: Philippines

*Host:* VNU Asia Pacific

## ii) Specialized magazines

**1. Vietnam Journal of: Agriculture & Rural Development**

*Website*: http://tapchinongnghiep.vn/

**2. Nong san Viet** *(Vietnamese agricultural products)*

*Website*: https://nongsanviet.nongnghiep.vn/

**3. Nong nghiep Viet Nam** *(Vietnam agriculture)*

*Website*: https://vietnamagriculture.nongnghiep.vn/

**4. The gioi gia cam** *(Poultry magazine)*

*Website*: https://www.tapchigiacam.vn/

**5. Vietnam Journal of Agricultural Science**

*Website*: https://tapchi.vnua.edu.vn/

**6. Journal of Vietnam Agricultural Science and Technology**

*Website*: https://tapchi.vaas.vn/

**7. Journal of Vietnam Agricultural Science and Technology**

*Website*: https://tapchi.vaas.vn/

**8. The journal of Agriculture and Development**

*Website*: https://jad.hcmuaf.edu.vn/index.php/jadvn/index

**9. Nong thon Viet** *(Vietnamese countryside)*

*Website*: https://nongthonviet.com.vn/

**10. Tap chi Chan nuoi Viet Nam** *(Vietnam Livestock Magazine)*

*Website*: http://nhachannuoi.vn/

**11. Heo** *(Pig)*

*Website*: http://heo.com.vn/

**12. Thuy San Viet Nam** *(Vietnamese seafood)*

*Website*: https://thuysanvietnam.com.vn/

**13. Tap chi nghe ca song Cuu Long** *(Mekong River Fisheries Magazine)*

*Website*: https://vienthuysan2.org.vn/tap-chi-nghe-ca-song-cuu-long-so-22-2022/

**14. Journal of Veterinary Science and Technology**

*Website*: http://tapchi.hoithuyvietnam.org.vn/tap-chi-khoa-hoc-ky-thuat-thu-y-xxvi-so-5-2019.htm

**15. Tap chi sinh thai nong nghiep** *(Journal of Agro-Ecology)*

*Website*: https://sinhthainongnghiep.net.vn/

**16. Tap chi nong nghiệp huu co Viet Nam** *(Vietnam Organic Agriculture Magazine)*

*Website*: https://nongnghiephuucovn.vn/

**17. Chan nuoi Gia cam** *(Poultry farming)*

*Website*: http://channuoigiacam.com/

### iii) Associations

**1. Vietnam Engine and Agricultural Machinery Corporation (VEAM)**

*Website*: http://veamcorp.com/

**2. Vietnam Society of Agriculture Engineering (VSAGE)**

*Website*: https://www.vsage.vn/

**3. Vietnam Farms and Agricultural Enterprises Association**

*Website*: http://www.vfaea.org/ban-tin-hiep-hoi-trang-trai

**4. Vietnam Mechanical Business Association (VAMI)**

*Website:* http://vami.com.vn/danh-sach-don-vi

**5. Vietnam farmer's union Ho Chi Minh City**

*Website*: https://hoinongdan.hochiminhcity.gov.vn/home

**6. Research and Development Center for High-Tech Agriculture (Ho Chi Minh City)**

*Website*: https://ahrd.vn/

## 4. Conclusion

The Vietnamese economic and business environments, along with their current dynamism not only within the ASEAN Region but also globally, the political stability of the country, and its openness to international trade, collectively serve as compelling motivations for a European company to engage in business activities in Vietnam. Furthermore, the agricultural machinery and equipment market, in general, presents favourable opportunities for foreign businesses and investors, as it maintains a relatively receptive attitude towards new solutions, machines, and technologies.

| Strengths | Weaknesses |
|---|---|
| • European products and solutions are seen as efficient, of high-quality<br>• Italy is locally perceived as a major player in the fields of agriculture and agrifood, and related equipment and machines<br>• Italy remains a major partner of Vietnam, being in 2022 the 19th largest supplier in trade value, the 3rd European (behind Ireland and Germany, ahead of France) | • European machinery is often perceived as (and sometimes is) being ill-suited for the Vietnamese local type of crops or tropical weather<br>• European products and solutions are often too expensive for the majority of farms |
| **Opportunities** | **Threats** |
| • Vietnam is overall in very good economic health, and the forecasts in the next decades remain outstanding<br>• Agriculture remains one of the cornerstones of the economy, heavily supported by the Government<br>• As Vietnam is overly exposed to climate change and its consequences, economic development policies have increasingly put the emphasis on sustainability and environmental protection, within the frame of Vietnam 2050 net-zero emissions goal.<br>• The growing middle class entails higher consumer prices: producers and farmers can invest more money in their equipment | • The adoption of new technologies, particularly in the area of smart farming, can be greatly influenced by the level of public support and related incentives<br>• The market of tractors and agricultural machinery is largely dominated by Chinese products and/or second-hand products<br>• The country is highly divided in terms of regional crops and livestock. This implies difficulties in partner targeting, as they rarely have a national coverage<br>• Corruption, lack of transparency, and discrepancies between theory and practice<br>• Second-hand machinery market remains important<br>• Labor costs are still very low in Vietnam – the ROI for human-replacement machinery is often marginal |

Being a still relatively unintegrated market within a developing country, the agricultural machinery and equipment market in Vietnam requires a specific approach depending on the product, solutions sold. A company usual export or international development strategy, which may have been successful in several other countries, give or take minor adjustments, may not necessarily yield the same results in Vietnam. Instead, a customized and original approach that takes into consideration the market realities is more likely to succeed. It is important to note that success in Vietnam, as well as in other developing countries in Asia, is not solely dependent on business facts, figures, and contract negotiation. Personal connections, relationships, and establishing proper networks also play a significant role in achieving success in this market.

Vietnam is not a market for inexperienced exporters or firms that do not have a well-established export department or business development unit. Companies preparing to enter the Vietnamese market must then plan strategically and be persistent and consistent with face-to-face follow-up. It can take up to one or two years to make a successful sale in this market.

To enter or expand in Vietnam, businesses may do so indirectly through the appointment of an agent or distributor. Companies new to Vietnam should conduct sufficient due diligence on potential local agents/distributors to ensure they possess the requisite permits, facilities, workforce, and capital. Firms seeking a direct presence in Vietnam (e.g. an animal feed manufacturer wishing to both produce in Vietnam and use the country as a regional commercial HQ) should establish a commercial operation utilizing the following options.

## Business opportunities

- The tractors and heavy machinery segments are overall dominated by China and other Asian countries (Japan, Korea and Thailand) – as such, it can be quite challenging for a newcomer with finished goods to gain market shares and establish a fruitful business footprint. However, some specific vehicles' subparts, subsystems and components may find some opportunities here.

- Smart farming solutions, whether hardware or software, have huge potential in Vietnam, depending on the specific target segment. Price and/or ROI remain the most important criteria here. As the big Vietnamese players are increasingly looking to export, solutions that can improve their competitiveness are seek after.

- The Vietnamese livestock segment is gaining momentum those last few years, especially for poultry and pigs. If the animal feed segments are pretty much consolidated when it comes to finished goods, with many well-established players, feed additives can definitely find their place in Vietnam.

- Green solutions and equipment that increase sustainability, improve water treatment, reduce environmental impact, etc. are sought after by the largest companies to comply with increasingly severe local policies and comply with international regulations in their export markets. For smaller stakeholders who may not be familiar with environmental issues, price and return on investment (ROI) continue to be the primary criteria for making purchases. However, there is an increasing prevalence of green incentives aimed at encouraging these stakeholders to invest in environmentally friendly solutions.

## Recommendations for market entry and best approaches

To distribute their products in Vietnam, foreign players have various options, the most common usually being the signing of a distribution contract with established companies in Vietnam.

A foreign company may prefer to sell its products locally through local companies. Unless in a prohibited or restricted sector, the sale of foreign products in the Vietnamese market by a Vietnamese company does not require any specific authorization or license.

This type of contract remains the most flexible option. It is possible to contractually exclude any compensation for the distributor in the case of termination or non-renewal of the contract (except in the case of misconduct by the principal that would incur their liability). It is also the least burdensome option from a tax perspective (the import tax on products is the responsibility of the Vietnamese buyer).

Particular attention should be paid to the drafting of exclusivity clauses and the scope of the distribution network. Importers-distributors in Vietnam generally have a regional distribution network (Hanoi and Ho Chi Minh City).

If a company wants to enter the market without necessarily establishing a structure in Vietnam, it can also rely on trade intermediaries. Commercial intermediary contracts allow the foreign company to represent its products or services in a designated territory, closely resembling a direct commercialization carried out by the company itself.

In the Vietnamese Commercial Law, several options are available, the main ones being:

- Commercial agent

  A commercial agent is an individual or legal entity that undertakes commercial activities (goods and services) on behalf of a commercial entity (but in their own name) in exchange for remuneration. Commercial agency is characterized by contractual freedom. An agency contract is not subject to any registration requirements.

  The contract, which must be in writing, can be for a fixed or indefinite term. Unless otherwise specified in the contract, the parties can terminate the contract by providing a 60-day notice.

In the event of termination by the principal, the commercial agent is entitled to compensation equivalent to one month of average commission per year of work. However, if the agent terminates the contract, they are not entitled to any compensation.

Vietnamese law does not recognize the theory of apparent authority in the context of agency. Therefore, the principal will not be bound by acts performed by the agent beyond their mandate.

- Sales representative

A sales representative is an individual or legal entity responsible for conducting commercial activities (goods and services) on behalf of a commercial entity in exchange for remuneration defined by the contract.

The contract, which must be in writing, can be for a fixed or indefinite term and specifies the scope of the mandate given to the sales representative. Reasonable expenses incurred in the course of representation are reimbursed.

In the event of early unilateral termination by the company, the company is obliged to compensate the sales representative for the signed contracts. Termination by the sales representative results in the loss of any right to remuneration.

In any of those cases, the most important things to look for in a partner are:

- **Years of activity**: The longer the potential partner has been working in a specific field, the larger its network will be. First, its business/customer network, meaning that they will be more likely to find leads and targets to sell your products. But in parallel, and more importantly, the experienced partner will also have a more extensive network of key people working in public bodies, customs, regulatory agencies, etc. and may be able to cut red tape, resolve issues and facilitate processes more effectively.

- **Other products in portfolio**: The select partner should have an extensive knowledge of its segment in Vietnam to be able to sell your products/solutions as efficiently as possible. In the best-case scenario, its portfolio would comprise only of ancillary products, supplementary to yours. However, it is crucial to acknowledge that Vietnam is a rapidly developing country, and many businesses operating there may not have reached full specialization. These businesses often find themselves in a state of constant adaptation, expanding their portfolio in various directions or simply capitalizing on any available opportunities to generate revenue.

Another option, instead of going through a local partner, would be to establish a proper presence via direct investment. That can be relevant for example if you want to both manufacture in Vietnam and sell in Asia, or if your business footprint is sturdy enough for you to cut the local partner and increase your margins. In any case, FDI are welcome in Vietnam and there are 4 main steps to follow:

**Step 1: Pre-investment approval**

The first step is to obtain pre-investment approval from Vietnamese authorities before proceeding with the establishment procedures for certain types of investments. It is crucial to determine whether an investment requires approval and, if so, to prepare the necessary documentation and work within the application processing timeframe.

**Step 2: Investment registration certificate application**

To begin the process of establishing a corporation in Vietnam, the initial step is to apply for an Investment Registration Certificate (IRC). This certificate is mandatory for all foreign-owned investment projects and confirms the foreign enterprise's authorization to invest in Vietnam.

To apply an investor must:

• Application for implementation of investment project (this should include details of the project in Vietnam);

• Proposal of investment project (should include the details of the investment project, including lease agreements or land use needs);

• Financial statements (to be provided for the last two years of a company's operation; additional information may be required to prove financial capacity).

• Incorporation Certificate (for companies);

• Passport (for individuals);

• Bank statement (to show that they have sufficient capital to fund their operations); and

• Confirmation of tax obligation fulfillment (if an investor cannot provide a financial statement).

Timeframe: 15 days from the date when documents are submitted.

**Step 3: Enterprise registration certificate application**

To establish a new entity in Vietnam, it is necessary to obtain an Enterprise Registration Certificate (ERC). This certificate is mandatory for all projects and is accompanied by a number that serves as the entity's tax registration number. During the application process, it is essential to gather and prepare the following information:

• Application for enterprise registration;

• Company charter;

• List of all board members; (JSC and multimember LLC only)

• List of legal representatives; and

• Letters of appointment and authorization.

If foreign documents or supporting information are submitted, they must be notarized, legalized by consular officials, and translated into Vietnamese by authorized entities. The issuance of a signed and sealed printed version takes five working days, with an additional two working days required. It is important to note that the ERC and IRC applications cannot be processed simultaneously. The IRC must be obtained before the ERC. However, changes to an existing IRC or ERC, such as a change of address, can be processed concurrently.

**Step 4: Post licensing procedures**

After the issuance of the IRC and ERC, further actions are necessary to finalize the process and commence business operations. These actions are:

- Seal carving;
- Bank account opening;
- Labor registration;
- Business license tax payment; and
- Charter capital contribution

To accompany and support foreign investors in Vietnam, the country has put in place CIT (Corporate Income Tax) incentives. Those are applied to:

- New investment projects in areas where investment is encouraged
- Large-scale projects and certain expansion investment projects (not including projects formed from merger or restructuring).

The sectors where investment is encouraged by the Government are:

Education, healthcare, culture, sports, high technology, environmental protection, scientific research, infrastructure development, processing of agricultural and aquatic products, software manufacturing, and renewable energy.

New or expanded investment projects in the field of manufacturing products on the list of privilege supporting industries are also entitled to CIT incentives if they meet one of the following criteria:

- Industrial products supporting high technology; or
- Supporting products for the industries such as textile-garment, leather-shoes, electronics and information technology, automobile manufacturing and assembly, and mechanical engineering.

Areas that are encouraged to invest include economic zones, high-tech zones, a number of industrial parks and areas with difficult socio-economic conditions as prescribed.

Projects with capital scale of VND 6 trillion or more, disbursed within 3 years from the time of initial investment, and meet one of the following two criteria:

- has a total revenue of at least 10 trillion dong/year at the latest in the fourth year from the year of revenue; or
- employing more than 3,000 employees within the fourth year from the year of revenue;
- projects with a capital scale of VND 12,000 billion or more, disbursed within 5 years from the date of licensing and using technology appraised in accordance with relevant regulations.

Special investment incentives for research and development as well as large-scale investment projects are regulated by the Law on Investment. CIT incentives vary depending on certain criteria. The highest incentives include a preferential tax rate of 5% for a period of 37 years, tax exemption for 6 years, and a 50% reduction in CIT for the next 13 years. In addition, land rent and water surface rent are also exempted/reduced for a certain period of time.

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# 6. Appendices

## Appendix 1 – HS Code list

| | |
|---|---|
| **8408.20.310** | Diesel engines for wheeled agricultural or forestry tractors, of a power not exceeding 50 kW (67,98 CV) |
| **8408.20.350** | Diesel engines for wheeled agricultural or forestry tractors, of a power exceeding 50 kW but not exceeding 100 kW (67,98-135,96 CV) |
| **8408.20.370** | Diesel engines for wheeled agricultural or forestry tractors, of a power exceeding 100 kW (135,96 CV) |
| **8419.31.000** | Dryers for agricultural products |
| **8424.41.000** | Portable sprayers |
| **8424.49.100** | Sprayers and powder distributors designed to be mounted on or drawn by tractors |
| **8424.49.900** | Self-propelled sprayers and powder distributors |
| **8424.82.100** | Watering appliances |
| **8424.82.900** | Other mechanical appliances for the projection or dispersion of liquids or dust for agriculture or horticulture |
| **8427.20.110** | Engine powered self-propelled rough terrain fork-lift trucks |
| **8428.90.710** | Loaders for use in agriculture: designed for attachment to agricultural tractors |
| **8428.90.790** | Loaders for use in agriculture: drawn by tractor or self-propelled |
| **8432.10.000** | Ploughs |
| **8432.21.000** | Disc harrows |
| **8432.29.100** | Scarifies and cultivators |
| **8432.29.300** | Harrows (other than disc harrows) |
| **8432.29.500** | Motor hoes |
| **8432.29.900** | Weeders and hoes |
| **8432.31.00** | No-till direct seeders, planters and transplanters |
| **8432.39.11** | Central driven precision spacing seeders |
| **8432.39.19** | Other seeders |
| **8432.39.90** | Planters and transplanters |
| **8432.41.00** | Manure spreaders |
| **8432.42.00** | Fertilizer distributors |
| **8432.80.000** | Other machinery for soil preparation or cultivation including lawn or sports-ground rollers |
| **8432.90.000** | Parts and fittings of machines classified in heading 84.32 |
| **8433.20.100** | Motor mowers |
| **8433.20.500** | Mowers to be mounted on or drawn by tractors |
| **8433.20.900** | Mowers, other than to be mounted on or drawn by tractors |

| | |
|---|---|
| **8433.30.000** | Other haymaking machinery |
| **8433.40.000** | Straw or fodder balers, including pick-up balers |
| **8433.51.000** | Combine harvesters |
| **8433.52.000** | Threshing machinery, other than combine harvesters |
| **8433.53.100** | Potato diggers and potato harvesters |
| **8433.53.300** | Beet-topping machines and beet harvesters |
| **8433.53.900** | Root or tuber (other than potato and beet) harvesting machines |
| **8433.59.110** | Self-propelled forage harvesters |
| **8433.59.190** | Forage harvesters, other than self-propelled |
| **8433.59.850** | Grape harvesters and other machinery for harvesting |
| **8433.90.000** | Parts and fittings of machines classified in heading 84.33 |
| **8436.10.000** | Machines and equipment for preparing animal feeding stuffs |
| **8436.80.100** | Forestry machinery and equipment |
| **8701.10.000** | Pedestrian-controlled tractors |
| **8701.30.000** | Track-laying tractors (including dozers) |
| **8701.91.10** | Farm and forestry tractors, wheeled, of an engine power not exceeding 18 kW (24,48 HP) |
| **8701.91.90** | Other tractors, wheeled, of an engine power not exceeding 18 kW (24,48 HP), not classified in heading 8701.91.10 |
| **8701.92.10** | Farm and forestry tractors, wheeled, of an engine power exceeding 18 kW but not exceeding 37 kW (24,48-50,31 HP) |
| **8701.92.90** | Other tractors, wheeled, of an engine power exceeding 18 kW but not exceeding 37 kW (24,48-50,31 HP), not classified in heading 8701.92.10 |
| **8701.93.10** | Farm and forestry tractors, wheeled, of an engine power exceeding 37 kW but not exceeding 75 kW (50,31- 102,00 HP) |
| **8701.93.90** | Other tractors, wheeled, of an engine power exceeding 37 kW but not exceeding 75 kW (50,31- 102,00 HP), not classified in heading 8701.93.10 |
| **8701.94.10** | Farm and forestry tractors, wheeled, of an engine power exceeding 75 kW but not exceeding 130 kW (102,00-176,75 HP) |
| **8701.94.90** | Other tractors, wheeled, of an engine power exceeding 75 kW but not exceeding 130 kW (102,00-176,75 HP), not classified in heading 8701.94.10 |
| **8701.95.10** | Farm and forestry tractors, wheeled, of an engine power Exceeding 130 kW (over 176,75 HP) |
| **8701.95.90** | Other tractors, wheeled, of an engine power Exceeding 130 kW (over 176,75 HP), not classified in heading 8701.95.10 |
| **8716.20.000** | Self-loading or self-unloading trailers and semi-trailers for agricultural use |

## Appendix 2 – 6-digits Import and export data related to the Appendix 1 HS Codes

# 1.Vietnam imports

1.1) Import: HS Code 8408.20

| Vietnam's imports of Compression-ignition internal combustion piston engine, diesel or semi-diesel (HS Code 840820) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **319 050** | **197 673** | **256 212** | **242 419** | **340 188** |
| Korea | 137 351 | 79 315 | 98 840 | 106 505 | 134 355 |
| Japan | 55 607 | 46 889 | 51 012 | 72 238 | 90 991 |
| China | 120 473 | 69 814 | 83 224 | 39 193 | 63 494 |
| Thailand | 2 614 | 52 | 20 243 | 20 968 | 30 799 |
| India | 1 555 | 1 066 | 1 993 | 2 588 | 15 569 |
| Russia | 1 | 236 | 267 | 112 | 3 803 |
| USA | 0 | 0 | 508 | 112 | 504 |
| Brazil | 18 | 18 | 0 | 126 | 415 |
| Indonesia | 0 | 0 | 0 | 561 | 94 |
| **Italy** | **0** | **0** | **0** | **10** | **80** |
| Germany | 0 | 20 | 125 | 0 | 38 |
| United Kingdom | 13 | 11 | 0 | 0 | 25 |
| Belarus | 1 309 | 0 | 0 | 0 | 20 |
| Belgium | 0 | 31 | 0 | 0 | 0 |
| France | 0 | 222 | 0 | 0 | 0 |
| Sweden | 103 | 0 | 0 | 0 | 0 |
| Türkiye | 6 | 0 | 0 | 5 | 0 |

1.2) Import: HS Code 8419.31

| Vietnam's imports of Dryers for agricultural products (HS Code 841931) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | 10936 | 13746 | 8592 | 11650 | 7884 |
| China | 3495 | 7803 | 3359 | 3765 | 4572 |
| Taiwan | 465 | 897 | 446 | 344 | 1059 |
| Brazil | 0 | 1627 | 0 | 7 | 1046 |
| India | 661 | 832 | 180 | 2783 | 489 |
| USA | 54 | 89 | 56 | 46 | 468 |
| Korea | 97 | 667 | 359 | 439 | 101 |
| Japan | 1034 | 1355 | 727 | 35 | 73 |
| **Italy** | **33** | **60** | **119** | **42** | **27** |

| | | | | | |
|---|---|---|---|---|---|
| Germany | 3199 | 220 | 647 | 1786 | 16 |
| Singapore | 0 | 2 | 0 | 362 | 14 |
| Netherlands | 14 | 2 | 593 | 1417 | 9 |
| Indonesia | 0 | 0 | 0 | 1 | 7 |
| Poland | 0 | 0 | 147 | 2 | 3 |
| Australia | 0 | 1 | 0 | 0 | |
| Denmark | 0 | 0 | 175 | 0 | |
| France | 1064 | 6 | 4 | 0 | |
| Hong Kong | 0 | 0 | 0 | 0 | |
| Malaysia | 133 | 0 | 12 | 0 | |
| Russia | 146 | 15 | 8 | 0 | |
| Spain | 0 | 2 | 0 | 0 | |
| Switzerland | 0 | 0 | 0 | 464 | |
| Thailand | 535 | 0 | 73 | 152 | |
| Türkiye | 6 | 169 | 1684 | 0 | |
| United Kingdom | 0 | 0 | 4 | 5 | |

1.3) Import: HS Code 8424.41

| **Vietnam's imports Agricultural or horticultural sprayers, portable (HS Code 842441) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **14 609** | **12 132** | **11 001** | **15 254** |
| China | 0 | 13 010 | 11 136 | 10 496 | 15 124 |
| Thailand | 0 | 90 | 129 | 55 | 55 |
| Korea | 0 | 363 | 36 | 54 | 28 |
| Japan | 0 | 36 | 4 | 13 | 28 |
| Germany | 0 | 227 | 54 | 132 | 9 |
| **Italy** | **0** | **0** | **7** | **37** | **7** |
| USA | 0 | 14 | 18 | 25 | 2 |
| Taiwan | 0 | 682 | 598 | 153 | 1 |
| Singapore | 0 | 0 | 0 | 0 | 1 |
| Türkiye | 0 | 0 | 1 | 11 | 1 |
| Brazil | 0 | 112 | 116 | 0 | |
| Canada | 0 | 0 | 1 | 0 | |
| Malaysia | 0 | 65 | 23 | 10 | |
| Mexico | 0 | 0 | 1 | 0 | |
| Netherlands | 0 | 0 | 3 | 0 | |
| Poland | 0 | 1 | 3 | 10 | |
| Romania | 0 | 0 | 0 | 1 | |
| India | 0 | 5 | 0 | 0 | |
| Spain | 0 | 2 | 3 | 6 | |
| United Kingdom | 0 | 4 | 0 | 0 | |

1.4) Import: HS Code 8424.49

| Vietnam's imports of Agricultural or horticultural sprayers (excl. portable) (HS Code 842449) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **7 482** | **14 315** | **11 679** | **13 291** |
| China | 0 | 5 117 | 5 393 | 7 759 | 10 498 |
| Mexico | 0 | 0 | 263 | 801 | 855 |
| Korea | 0 | 311 | 881 | 947 | 618 |
| Thailand | 0 | 481 | 336 | 327 | 267 |
| Brazil | 0 | 79 | 32 | 666 | 235 |
| Taiwan | 0 | 4 | 348 | 4 | 145 |
| **Italy** | **0** | **360** | **6 488** | **703** | **133** |
| Philippines | 0 | 0 | 0 | 0 | 122 |
| Netherlands | 0 | 17 | 48 | 51 | 89 |
| Canada | 0 | 0 | 0 | 6 | 54 |
| Japan | 0 | 111 | 69 | 69 | 53 |
| USA | 0 | 660 | 152 | 239 | 53 |
| Spain | 0 | 4 | 32 | 23 | 44 |
| Malaysia | 0 | 149 | 202 | 60 | 39 |
| Türkiye | 0 | 0 | 8 | 9 | 23 |
| Israel | 0 | 0 | 28 | 0 | 22 |
| Germany | 0 | 56 | 0 | 0 | 21 |
| Hungary | 0 | 10 | 15 | 0 | 15 |
| Singapore | 0 | 34 | 0 | 12 | 5 |
| Australia | 0 | 0 | 8 | 0 | |
| Dominican Republic | 0 | 0 | 0 | 1 | |
| Greece | 0 | 1 | 0 | 0 | |
| India | 0 | 0 | 13 | 0 | |
| United Kingdom | 0 | 88 | 0 | 0 | |

1.5) Import: HS Code 8424.82

| Vietnam's imports of Agricultural or horticultural mechanical appliances, whether or not hand-operated, for projecting or dispersing liquids or powders (excl. sprayers) (HS Code 842482) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **6619** | **6056** | **5558** | **5035** |
| China | 0 | 2378 | 2436 | 2541 | 3166 |
| Israel | 0 | 1267 | 1273 | 927 | 452 |
| Taiwan | 0 | 186 | 625 | 343 | 383 |
| USA | 0 | 585 | 86 | 226 | 223 |

| | | | | | |
|---|---|---|---|---|---|
| Mexico | 0 | 0 | 290 | 91 | 156 |
| India | 0 | 136 | 145 | 142 | 134 |
| **Italy** | **0** | **745** | **573** | **255** | **133** |
| Austria | 0 | 0 | 0 | 0 | 105 |
| Korea | 0 | 308 | 140 | 161 | 57 |
| Thailand | 0 | 389 | 193 | 324 | 50 |
| United Kingdom | 0 | 0 | 3 | 2 | 50 |
| Philippines | 0 | 0 | 91 | 155 | 42 |
| Japan | 0 | 173 | 64 | 102 | 34 |
| Netherlands | 0 | 64 | 11 | 67 | 23 |
| Australia | 0 | 0 | 11 | 8 | 19 |
| Germany | 0 | 26 | 17 | 109 | 3 |
| Singapore | 0 | 7 | 0 | 0 | 1 |
| Spain | 0 | 226 | 20 | 2 | 1 |
| Türkiye | 0 | 42 | 61 | 41 | 1 |
| Canada | 0 | 2 | 2 | 0 | |
| Czech Republic | 0 | 0 | 0 | 14 | |
| France | 0 | 46 | 1 | 0 | |
| Greece | 0 | 16 | 14 | 0 | |
| Portugal | 0 | 25 | 0 | 49 | |

1.6) Import: HS Code 8427.20

| **Vietnam's imports of Self-propelled trucks fitted with lifting or handling equipment, non-powered by an electric motor (HS Code 842720) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **102 839** | **87 323** | **85 576** | **72 527** | **91 720** |
| Japan | 41 246 | 39 107 | 36 171 | 33 711 | 41 020 |
| China | 41 112 | 26 892 | 25 634 | 24 842 | 36199 |
| Sweden | 3 251 | 5 188 | 6 237 | 3 729 | 4 504 |
| Korea | 6 336 | 3 925 | 4 068 | 2 161 | 4 048 |
| Poland | 1 213 | 677 | 244 | 1 666 | 1 646 |
| USA | 3 667 | 2 646 | 3 666 | 3 074 | 1 305 |
| Taiwan | 1 972 | 1 714 | 1 608 | 1 486 | 1 301 |
| France | 795 | 740 | 889 | 633 | 536 |
| Netherlands | 1 198 | 2 774 | 2 408 | 560 | 395 |
| United Kingdom | 38 | 96 | 298 | 129 | 280 |
| Germany | 1 608 | 1 648 | 2 586 | 148 | 166 |
| Ireland | 0 | 0 | 104 | 43 | 128 |
| **Italy** | **128** | **0** | **1 322** | **120** | **114** |
| Romania | 0 | 0 | 0 | 85 | 52 |
| Singapore | 2 | 139 | 4 | 0 | 26 |

| | | | | | |
|---|---|---|---|---|---|
| Australia | 24 | 113 | 199 | 30 | |
| Belgium | 0 | 56 | 0 | 0 | |
| Canada | 81 | 0 | 0 | 108 | |
| Denmark | 0 | 1521 | 90 | 0 | |
| Indonesia | 46 | 0 | 0 | 0 | |
| Jamaica | 10 | 0 | 0 | 0 | |
| Malaysia | 1 | 88 | 0 | 0 | |
| New Zealand | 0 | 0 | 14 | 1 | |
| India | 31 | 0 | 0 | 0 | |
| Spain | 0 | 0 | 35 | 0 | |
| Thailand | 82 | 0 | 0 | 0 | |

1.7) Import: HS Code 8428.90

| **Vietnam's imports of Machinery for lifting, handling, loading or unloading, n.e.s. (HS Code 842890) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **79 371** | **74 012** | **112 835** | **59 738** | **84 188** |
| China | 45 685 | 39 392 | 31 912 | 25 951 | 47 773 |
| Korea | 9 957 | 7 347 | 26 768 | 15 612 | 13 201 |
| Germany | 10 213 | 12 541 | 16 631 | 1 435 | 8 344 |
| Japan | 4 110 | 2 215 | 8 243 | 5 001 | 5 284 |
| USA | 1 871 | 1 864 | 11 681 | 2 837 | 2 778 |
| Taiwan | 1 406 | 3 795 | 8 954 | 3 167 | 1 605 |
| Spain | 94 | 861 | 513 | 100 | 1 248 |
| United Kingdom | 24 | 347 | 70 | 11 | 1 039 |
| **Italy** | **391** | **939** | **3 078** | **3 038** | **510** |
| Malaysia | 647 | 786 | 656 | 574 | 451 |
| Netherlands | 300 | 371 | 1 088 | 234 | 441 |
| India | 7 | 150 | 466 | 72 | 419 |
| Thailand | 699 | 286 | 738 | 124 | 335 |
| Canada | 664 | 240 | 0 | 87 | 178 |
| Switzerland | 139 | 1 042 | 0 | 0 | 103 |
| New Zealand | 0 | 120 | 0 | 0 | 102 |
| Türkiye | 9 | 110 | 161 | 0 | 98 |
| Australia | 60 | 47 | 225 | 86 | 79 |
| Denmark | 536 | 74 | 0 | 99 | 68 |
| Singapore | 67 | 352 | 617 | 545 | 50 |
| Sweden | 84 | 156 | 121 | 22 | 34 |
| Costa Rica | 0 | 0 | 0 | 0 | 23 |
| Russia | 0 | 0 | 0 | 8 | 15 |
| France | 376 | 904 | 723 | 398 | 8 |
| Austria | 37 | 0 | 0 | 7 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Area Nes | 1 398 | 0 | 0 | 0 | |
| Belgium | 0 | 0 | 0 | 94 | |
| Cambodia | 6 | 0 | 0 | 0 | |
| Czech Republic | 465 | 0 | 44 | 0 | |
| Finland | 0 | 0 | 0 | 6 | |
| Mexico | 14 | 0 | 3 | 10 | |
| Norway | 0 | 0 | 0 | 180 | |
| Philippines | 112 | 0 | 59 | 39 | |
| Poland | 0 | 18 | 0 | 2 | |
| Romania | 0 | 56 | 84 | 0 | |

1.8) Import: HS Code 8432.10

| Vietnam's imports of Ploughs for use in agriculture, horticulture or forestry (HS Code 843210) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **1 157** | **1 512** | **1 948** | **1 934** | **1 459** |
| Japan | 383 | 868 | 1 154 | 1 262 | 1 167 |
| China | 390 | 424 | 526 | 562 | 181 |
| Thailand | 323 | 211 | 239 | 103 | 78 |
| Türkiye | 0 | 0 | 3 | 0 | 12 |
| **Italy** | **10** | **0** | **0** | **0** | **11** |
| Brazil | 0 | 0 | 0 | 0 | 10 |
| Korea | 10 | 0 | 0 | 0 | |
| Belarus | 0 | 4 | 0 | 0 | |
| Cambodia | 7 | 0 | 0 | 0 | |
| Denmark | 3 | 0 | 0 | 0 | |
| Indonesia | 0 | 0 | 0 | 5 | |
| Taiwan | 10 | 1 | 15 | 1 | |
| Netherlands | 10 | 0 | 10 | 0 | |
| India | 7 | 0 | 0 | 1 | |
| USA | 4 | 3 | 0 | 0 | |

1.9) Import: HS Code 8432.21

| Vietnam's imports of Disc harrows for use in agriculture, horticulture or forestry (HS Code 843221) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **207** | **218** | **243** | **200** | **377** |
| Japan | 22 | 46 | 69 | 100 | 199 |
| Brazil | 31 | 44 | 66 | 49 | 93 |
| Thailand | 127 | 106 | 64 | 14 | 85 |
| Korea | 0 | 0 | 2 | 0 | |

| | | | | | |
|---|---|---|---|---|---|
| China | 0 | 0 | 19 | 19 | |
| Poland | 0 | 0 | 23 | 0 | |
| Türkiye | 26 | 22 | 0 | 18 | |

1.10) Import: HS Code 8432.29

| Vietnam's imports of Harrows, scarifiers, cultivators, weeders and hoes for use in agriculture, horticulture or forestry (HS Code 843229) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| World | 4839 | 8159 | 9205 | 7107 | 8174 |
| China | 2302 | 4657 | 5654 | 3696 | 4615 |
| Thailand | 1368 | 1224 | 1507 | 2112 | 1903 |
| Japan | 830 | 1899 | 1827 | 969 | 1245 |
| USA | 242 | 165 | 101 | 175 | 237 |
| India | 4 | 70 | 3 | 131 | 155 |
| Türkiye | 0 | 0 | 0 | 0 | 15 |
| Korea | 12 | 2 | 13 | 22 | 1 |
| Germany | 0 | 0 | 1 | 0 | 1 |
| **Italy** | **25** | **23** | **0** | **0** | **1** |
| Netherlands | 28 | 19 | 6 | 0 | 1 |
| Sweden | 0 | 0 | 0 | 1 | 1 |
| United Kingdom | 0 | 21 | 21 | 0 | 1 |
| Belarus | 0 | 50 | 31 | 0 | |
| Indonesia | 0 | 0 | 0 | 1 | |
| Malaysia | 23 | 0 | 0 | 0 | |
| Taiwan | 4 | 30 | 5 | 0 | |
| Norway | 0 | 0 | 23 | 0 | |
| Singapore | 0 | 0 | 15 | 0 | |

1.11) Import: HS Code 8432.31

| Vietnam's imports of No-till direct seeders, planters and transplanters (HS Code 843231) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **1449** | **1346** | **2078** | **1759** |
| China | 0 | 1180 | 826 | 1532 | 1368 |
| Japan | 0 | 236 | 456 | 536 | 321 |
| Taiwan | 0 | 3 | 3 | 0 | 45 |
| Korea | 0 | 16 | 62 | 0 | 18 |
| Brazil | 0 | 12 | 0 | 4 | 7 |
| Malaysia | 0 | 2 | 0 | 0 | |
| India | 0 | 0 | 0 | 3 | |

| | | | | | |
|---|---|---|---|---|---|
| Thailand | 0 | 0 | 0 | 2 | |
| Türkiye | 0 | 0 | 0 | 1 | |

1.12) Import: HS Code 8432.39

| Vietnam's imports of Seeders, planters and transplanters (excl. no-till machines) (HS Code 843239) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **771** | **133** | **391** | **593** |
| China | 0 | 741 | 79 | 125 | 440 |
| Japan | 0 | 13 | 9 | 169 | 134 |
| Philippines | 0 | 0 | 0 | 0 | 12 |
| Korea | 0 | 0 | 0 | 0 | 7 |
| Taiwan | 0 | 0 | 0 | 0 | 1 |
| Austria | 0 | 0 | 0 | 11 | |
| **Italy** | **0** | **0** | **13** | **0** | |
| Thailand | 0 | 17 | 30 | 22 | |
| USA | 0 | 0 | 2 | 66 | |

1.13) Import: HS Code 8432.41

| Vietnam's imports of Manure spreaders (excl. sprayers) (HS Code 843241) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| World | 0 | 111 | 242 | 129 | 230 |
| USA | 0 | 97 | 57 | 84 | 121 |
| Korea | 0 | 0 | 0 | 0 | 44 |
| Japan | 0 | 1 | 135 | 43 | 35 |
| Ireland | 0 | 0 | 17 | 0 | 24 |
| Brazil | 0 | 0 | 0 | 0 | 5 |
| China | 0 | 0 | 20 | 0 | |
| Netherlands | 0 | 0 | 0 | 2 | |
| Türkiye | 0 | 13 | 13 | 0 | |

1.14) Import: HS Code 8432.42

| Vietnam's imports of Fertiliser distributors (excl. sprayers and manure spreaders) (HS Code 843242) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| World | 0 | 256 | 94 | 47 | 73 |
| USA | 0 | 128 | 34 | 19 | 20 |
| France | 0 | 0 | 0 | 0 | 19 |
| Thailand | 0 | 2 | 0 | 6 | 13 |
| Türkiye | 0 | 3 | 1 | 2 | 11 |
| Taiwan | 0 | 19 | 0 | 0 | 6 |

| | | | | | |
|---|---|---|---|---|---|
| Korea | 0 | 0 | 0 | 0 | 4 |
| **Italy** | **0** | **0** | **5** | **0** | **1** |
| United Kingdom | 0 | 0 | 0 | 0 | 1 |
| Brazil | 0 | 35 | 0 | 0 | |
| Canada | 0 | 6 | 8 | 8 | |
| China | 0 | 0 | 5 | 3 | |
| Germany | 0 | 0 | 13 | 0 | |
| Japan | 0 | 60 | 27 | 0 | |
| Netherlands | 0 | 0 | 1 | 0 | |
| Spain | 0 | 3 | 0 | 10 | |

1.15) Import: HS Code 8432.80

**Vietnam's imports of Agricultural, horticultural or forestry machinery for soil preparation or cultivation; lawn or sports-ground rollers (excluding sprayers and dusters, ploughs, harrows, scarifiers, cultivators, weeders, hoes, seeders, planters, manure spreaders and fertiliser distributors) (HS Code 843280) in thousand USD (2017 – 2021)**

| Exporters | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **World** | **1 219** | **1 368** | **1 251** | **900** | **11 28** |
| USA | 668 | 784 | 342 | 549 | 419 |
| Japan | 309 | 182 | 264 | 110 | 413 |
| Hungary | 0 | 0 | 0 | 0 | 121 |
| **Italy** | **0** | **0** | **9** | **48** | **39** |
| Germany | 30 | 97 | 14 | 67 | 38 |
| United Kingdom | 58 | 23 | 34 | 38 | 38 |
| Canada | 0 | 0 | 7 | 0 | 22 |
| India | 10 | 0 | 16 | 0 | 16 |
| China | 45 | 210 | 496 | 30 | 12 |
| Korea | 2 | 0 | 17 | 19 | 7 |
| Thailand | 0 | 10 | 4 | 36 | 2 |
| Australia | 2 | 6 | 8 | 3 | |
| Brazil | 0 | 0 | 10 | 0 | |
| Malaysia | 84 | 0 | 0 | 0 | |
| Taiwan | 2 | 4 | 0 | 1 | |
| Netherlands | 9 | 53 | 10 | 0 | |
| Philippines | 0 | 0 | 12 | 0 | |
| Russia | 0 | 0 | 6 | 0 | |

1.16) Import: HS Code 8432.90

| Vietnam's imports of Parts of agricultural, horticultural or forestry machinery for soil preparation or cultivation or of lawn or sports-ground rollers (HS Code 843290) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **2 268** | **2 134** | **2 348** | **1 541** | **3 310** |
| China | 704 | 846 | 728 | 657 | 1 946 |
| Spain | 157 | 311 | 183 | 226 | 396 |
| Taiwan | 12 | 20 | 231 | 71 | 257 |
| India | 143 | 153 | 182 | 108 | 256 |
| Japan | 119 | 171 | 225 | 144 | 151 |
| Türkiye | 59 | 40 | 102 | 26 | 130 |
| USA | 161 | 221 | 227 | 98 | 64 |
| Brazil | 0 | 50 | 16 | 7 | 24 |
| France | 16 | 45 | 60 | 44 | 23 |
| Belarus | 12 | 19 | 15 | 4 | 17 |
| **Italy** | **84** | **26** | **40** | **106** | **17** |
| Korea | 0 | 38 | 126 | 0 | 12 |
| Ukraine | 16 | 8 | 2 | 10 | 6 |
| Netherlands | 2 | 23 | 0 | 1 | 5 |
| Thailand | 507 | 87 | 172 | 29 | 3 |
| United Kingdom | 12 | 10 | 1 | 2 | 3 |
| Area Nes | 14 | 0 | 0 | 0 | |
| Australia | 179 | 0 | 5 | 0 | |
| Canada | 45 | 25 | 0 | 0 | |
| Czech Republic | 4 | 0 | 11 | 0 | |
| Denmark | 0 | 2 | 1 | 0 | |
| Finland | 12 | 0 | 0 | 0 | |
| Germany | 0 | 39 | 7 | 3 | |
| Hungary | 1 | 0 | 0 | 1 | |
| Indonesia | 0 | 0 | 14 | 0 | |
| Israel | 8 | 0 | 0 | 0 | |
| Malaysia | 2 | 0 | 0 | 2 | |
| Mexico | 0 | 0 | 1 | 0 | |

1.17) Import: HS Code 8433.20 (from 2017 - 2021)

| Vietnam's imports of Mowers, incl. cutter bars for tractor mounting, excluding mowers for lawns, parks or sports grounds (HS Code 843320) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **11 348** | **13 457** | **15 309** | **16 263** | **22 887** |
| China | 9 245 | 11 340 | 11 087 | 12 637 | 20 157 |
| Japan | 1 178 | 1 208 | 1 932 | 2 020 | 1 640 |
| Thailand | 239 | 419 | 1 813 | 1 491 | 897 |

| | | | | | |
|---|---|---|---|---|---|
| USA | 99 | 203 | 25 | 2 | 167 |
| Türkiye | 21 | 0 | 0 | 1 | 16 |
| France | 31 | 18 | 12 | 0 | 7 |
| **Italy** | **24** | **0** | **111** | **14** | **2** |
| Hong Kong, China | 0 | 0 | 0 | 0 | 1 |
| Korea | 10 | 1 | 22 | 0 | |
| Area Nes | 1 | 0 | 0 | 0 | |
| Belarus | 2 | 4 | 0 | 3 | |
| Canada | 0 | 16 | 0 | 0 | |
| Denmark | 28 | 64 | 1 | 0 | |
| Germany | 0 | 5 | 2 | 0 | |
| Taiwan | 353 | 178 | 302 | 66 | |
| India | 0 | 1 | 0 | 3 | |
| Sweden | 0 | 1 | 1 | 26 | |
| United Kingdom | 117 | 0 | 1 | 0 | |

1.18) Import: HS Code 8433.30 (from 2017 - 2021)

| **Vietnam's imports of Haymaking machinery (excluding mowers) (HS Code 843330) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **182** | **140** | **154** | **197** | **11** |
| Hungary | 40 | 8 | 28 | 25 | 7 |
| USA | 125 | 77 | 33 | 8 | 5 |
| Canada | 0 | 0 | 18 | 11 | |
| China | 6 | 0 | 0 | 63 | |
| Germany | 0 | 5 | 32 | 0 | |
| Japan | 9 | 43 | 43 | 88 | |
| Malaysia | 1 | 0 | 0 | 0 | |
| Thailand | 0 | 7 | 0 | 0 | |
| Türkiye | 0 | 0 | 0 | 1 | |

1.19) Import: HS Code 8433.40

| **Vietnam's imports of Straw or fodder balers, incl. pick-up balers (HS Code 843340) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| World | 5210 | 2640 | 1518 | 2471 | 3852 |
| China | 4525 | 2128 | 1268 | 2206 | 3566 |
| India | 222 | 100 | 132 | 121 | 132 |
| Japan | 422 | 286 | 118 | 124 | 121 |
| Türkiye | 0 | 0 | 0 | 18 | 19 |
| USA | 0 | 0 | 0 | 2 | 13 |

| | | | | | |
|---|---|---|---|---|---|
| Belgium | 0 | 0 | 0 | 0 | 1 |
| Korea | 4 | 2 | 0 | 0 | |
| Belarus | 0 | 8 | 0 | 0 | |
| Denmark | 33 | 0 | 0 | 0 | |
| Finland | 0 | 62 | 0 | 0 | |
| Hong Kong, China | 3 | 0 | 0 | 0 | |
| Taiwan | 0 | 55 | 0 | 0 | |

1.20) Import: HS Code 8433.51

| Vietnam's imports of Combine harvester-threshers (HS Code 843351) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **75 793** | **59 602** | **27 033** | **27 883** | **39 903** |
| Thailand | 57 669 | 46 090 | 23 429 | 23 733 | 28 281 |
| China | 17 062 | 12 131 | 1 583 | 1 796 | 9 242 |
| Japan | 919 | 1 224 | 1 955 | 2 329 | 2 380 |
| Korea | 23 | 106 | 52 | 12 | |
| Cambodia | 84 | 0 | 0 | 0 | |
| Indonesia | 25 | 0 | 0 | 11 | |
| Taiwan | 0 | 0 | 14 | 0 | |
| India | 10 | 51 | 0 | 0 | |
| USA | 0 | 0 | 0 | 1 | |

1.21) Import: HS Code 8433.52

| Vietnam's imports of Threshing machinery (excluding combine harvester-threshers) (HS Code 843352) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **84** | **180** | **254** | **659** | **573** |
| China | 32 | 30 | 138 | 507 | 533 |
| Japan | 52 | 150 | 105 | 151 | 41 |
| Taiwan | 0 | 0 | 11 | 2 | |

1.22) Import: HS Code 8433.53

| Vietnam's imports of Root or tuber harvesting machines (HS Code 843353) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **658** | **79** | **391** | **179** | **43** |
| Japan | 630 | 28 | 66 | 88 | 43 |
| Korea | 7 | 0 | 0 | 0 | |
| Brazil | 0 | 5 | 0 | 0 | |

| | | | | | |
|---|---|---|---|---|---|
| China | 15 | 46 | 176 | 67 | |
| Thailand | 0 | 0 | 0 | 24 | |
| United Kingdom | 1 | 0 | 0 | 0 | |
| USA | 5 | 0 | 149 | 0 | |

1.23) Import: HS Code 8433.59

| **Vietnam's imports of Harvesting machinery for agricultural produce, (excluding mowers, haymaking machinery, straw and fodder balers, incl. pick-up balers, combine harvester-threshers, other threshing machinery and root or tuber harvesting machines) (HS Code 843359) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **4 365** | **2 403** | **3 116** | **1 602** | **1 789** |
| Germany | 164 | 0 | 986 | 0 | 720 |
| Brazil | 359 | 125 | 230 | 0 | 552 |
| China | 36 | 394 | 265 | 1038 | 304 |
| Japan | 246 | 344 | 302 | 318 | 161 |
| **Italy** | **19** | **0** | **0** | **19** | **21** |
| France | 0 | 0 | 0 | 0 | 14 |
| Türkiye | 62 | 0 | 19 | 2 | 11 |
| India | 726 | 245 | 543 | 90 | 5 |
| Australia | 192 | 0 | 0 | 0 | |
| Austria | 0 | 51 | 0 | 0 | |
| Belgium | 0 | 9 | 0 | 0 | |
| Canada | 0 | 10 | 0 | 0 | |
| Hungary | 13 | 0 | 0 | 0 | |
| Ireland | 7 | 0 | 0 | 0 | |
| Mexico | 27 | 122 | 0 | 0 | |
| Taiwan | 1 | 3 | 3 | 8 | |
| Netherlands | 0 | 50 | 0 | 112 | |
| Thailand | 0 | 97 | 36 | 15 | |
| United Kingdom | 3 | 0 | 0 | 0 | |
| USA | 2 511 | 953 | 732 | 0 | |

1.24) Import: HS Code 8433.90

| Vietnam's imports of Parts of harvesting machinery, threshing machinery, mowers and machines for cleaning, sorting or grading agricultural produce (HS Code 843390) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **2 520** | **3 067** | **5 696** | **10 983** | **12 455** |
| China | 1 543 | 2 067 | 5 098 | 10 721 | 11 897 |
| Thailand | 232 | 84 | 85 | 55 | 161 |
| USA | 407 | 384 | 245 | 48 | 132 |
| Japan | 126 | 175 | 81 | 63 | 113 |
| Brazil | 19 | 14 | 4 | 2 | 53 |
| Germany | 34 | 202 | 107 | 17 | 29 |
| Netherlands | 31 | 4 | 1 | 25 | 25 |
| Taiwan | 26 | 70 | 22 | 18 | 17 |
| Korea | 20 | 5 | 3 | 8 | 9 |
| United Kingdom | 3 | 5 | 10 | 7 | 8 |
| Malaysia | 7 | 19 | 0 | 1 | 7 |
| Belgium | 0 | 0 | 0 | 0 | 2 |
| Slovakia | 0 | 0 | 1 | 0 | 2 |
| France | 0 | 6 | 2 | 0 | 1 |
| Argentina | 0 | 4 | 6 | 0 | |
| Australia | 0 | 0 | 13 | 14 | |
| Austria | 0 | 1 | 2 | 0 | |
| Belarus | 1 | 0 | 0 | 0 | |
| Canada | 25 | 0 | 2 | 0 | |
| Denmark | 0 | 7 | 3 | 0 | |
| Hungary | 3 | 1 | 3 | 2 | |
| Israel | 1 | 0 | 0 | 0 | |
| **Italy** | **5** | **2** | **0** | **1** | |

| | | | | | |
|---|---|---|---|---|---|
| Mexico | 0 | 0 | 1 | 0 | |
| India | 37 | 1 | 4 | 1 | |
| Singapore | 0 | 7 | 4 | 0 | |
| Switzerland | 0 | 0 | 1 | 0 | |
| Türkiye | 2 | 8 | 0 | 1 | |

1.25) Import: HS Code 8436.10

**Vietnam's imports of Machinery for preparing animal feeding stuffs in agricultural holdings and similar undertakings, excluding machinery for the feeding stuff industry, forage harvesters and autoclaves for cooking fodder (HS Code 843610) in thousand USD (2017 – 2021)**

| Exporters | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **World** | **43 423** | **38 316** | **37 414** | **29 256** | **59 465** |
| China | 23 581 | 20 782 | 13 628 | 22 665 | 35 501 |
| Thailand | 1 881 | 3 763 | 1 216 | 375 | 9 593 |
| France | 2 916 | 1 170 | 12 220 | 468 | 5 271 |
| USA | 1 185 | 1 236 | 454 | 792 | 2 380 |
| Netherlands | 5 127 | 3 483 | 979 | 878 | 1 792 |
| Denmark | 956 | 393 | 764 | 1181 | 909 |
| Brazil | 0 | 0 | 0 | 0 | 864 |
| Singapore | 2 638 | 877 | 2 371 | 226 | 862 |
| Spain | 0 | 154 | 144 | 0 | 591 |
| Taiwan | 1 898 | 3 348 | 2 631 | 195 | 530 |
| Germany | 606 | 1 382 | 1 053 | 764 | 488 |
| Sweden | 5 | 53 | 0 | 0 | 244 |
| Türkiye | 1 186 | 565 | 568 | 69 | 179 |
| Canada | 137 | 219 | 0 | 0 | 66 |
| **Italy** | **85** | **601** | **469** | **4** | **62** |
| Norway | 0 | 0 | 0 | 0 | 61 |
| Slovakia | 0 | 0 | 0 | 0 | 54 |
| Korea | 80 | 17 | 0 | 575 | 17 |
| Area Nes | 1 020 | 0 | 0 | 0 | |
| Australia | 0 | 220 | 0 | 0 | |
| Austria | 0 | 0 | 0 | 814 | |
| Indonesia | 0 | 3 | 0 | 0 | |
| Israel | 4 | 0 | 0 | 0 | |
| Japan | 3 | 0 | 0 | 0 | |
| Latvia | 114 | 0 | 0 | 0 | |
| Malaysia | 0 | 41 | 305 | 0 | |
| Poland | 0 | 0 | 0 | 246 | |

| | | | | | |
|---|---|---|---|---|---|
| Switzerland | 0 | 0 | 66 | 5 | |
| United Kingdom | 0 | 10 | 545 | 0 | |

1.26) Import: HS Code 8436.80

| Vietnam's imports Agricultural, horticultural, forestry or bee-keeping machinery, n.e.s. (HS Code 843680) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **21 894** | **20192** | **43265** | **34010** | **30541** |
| China | 14777 | 12417 | 29856 | 26153 | 20121 |
| USA | 133 | 113 | 149 | 2340 | 2848 |
| Malaysia | 241 | 1498 | 3118 | 1491 | 2229 |
| Denmark | 1922 | 990 | 1097 | 694 | 1260 |
| Netherlands | 1473 | 1474 | 290 | 350 | 1204 |
| Germany | 643 | 824 | 35 | 111 | 620 |
| **Italy** | **533** | **393** | **896** | **748** | **478** |
| Japan | 67 | 86 | 94 | 371 | 411 |
| Korea | 155 | 37 | 85 | 166 | 396 |
| Taiwan | 1307 | 362 | 1334 | 696 | 265 |
| Spain | 253 | 73 | 162 | 280 | 204 |
| Türkiye | 0 | 67 | 45 | 49 | 127 |
| Canada | 0 | 0 | 86 | 11 | 124 |
| South Africa | 0 | 0 | 0 | 0 | 115 |
| France | 249 | 519 | 3282 | 65 | 47 |
| Belgium | 11 | 0 | 183 | 176 | 44 |
| Israel | 35 | 72 | 55 | 52 | 31 |
| Thailand | 40 | 744 | 2079 | 0 | 14 |
| India | 2 | 0 | 21 | 23 | 1 |
| Australia | 48 | 0 | 0 | 0 | |
| Austria | 4 | 60 | 62 | 28 | |
| Czech Republic | 2 | 2 | 0 | 0 | |
| Finland | 0 | 3 | 0 | 0 | |
| Hong Kong | 0 | 0 | 1 | 0 | |
| Indonesia | 0 | 0 | 29 | 0 | |
| Lithuania | 1 | 0 | 0 | 0 | |
| Singapore | 0 | 444 | 0 | 0 | |
| Sweden | 0 | 11 | 9 | 0 | |
| United Kingdom | 0 | 2 | 298 | 204 | |

1.27) Import: HS Code 8701.10

| Vietnam's imports Pedestrian-controlled agricultural tractors and similar tractors for industry, excluding tractor units for articulated lorries |
|---|

| (HS Code 870110) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| World | 3345 | 3749 | 4055 | 3781 | 4213 |
| China | 2970 | 3359 | 3223 | 3747 | 4212 |
| Japan | 338 | 336 | 151 | 14 | 1 |
| Korea | 6 | 0 | 0 | 0 | |
| Germany | 0 | 0 | 559 | 0 | |
| Mexico | 0 | 0 | 123 | 0 | |
| Netherlands | 32 | 9 | 0 | 0 | |
| India | 0 | 35 | 0 | 0 | |
| Thailand | 0 | 0 | 0 | 21 | |
| USA | 0 | 10 | 0 | 0 | |

1.28) Import: HS Code 8701.30

| **Vietnam's imports Track-laying tractors, excluding pedestrian-controlled (HS Code 870130) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **56** | **0** | **0** | **0** | **0** |
| China | 55 | 0 | 0 | 0 | |
| Japan | 1 | 0 | 0 | 0 | |

1.29) Import: HS Code 8701.91

| **Vietnam's imports Tractors, of an engine power <= 18 kW, excl. those of heading 8709, pedestrian-controlled tractors, road tractors for semi-trailers and track-laying tractors (HS Code 870191) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| World | 0 | 5132 | 1573 | 1968 | 1355 |
| Japan | 0 | 1912 | 1279 | 1157 | 1083 |
| China | 0 | 4 | 32 | 150 | 194 |
| Taiwan | 0 | 0 | 0 | 15 | 59 |
| Korea | 0 | 16 | 12 | 110 | 20 |
| Germany | 0 | 0 | 12 | 46 | |
| Indonesia | 0 | 0 | 43 | 0 | |
| **Italy** | **0** | **0** | **12** | **24** | |
| Malaysia | 0 | 0 | 0 | 365 | |
| India | 0 | 84 | 183 | 0 | |
| Singapore | 0 | 4 | 0 | 0 | |
| Thailand | 0 | 3113 | 0 | 0 | |
| United Kingdom | 0 | 0 | 0 | 100 | |

1.30) Import: HS Code 8701.92

| Vietnam's imports Tractors, of an engine power > 18 kW but <= 37 kW, excl. those of heading 8709, pedestrian-controlled tractors, road tractors for semi-trailers and track-laying tractors (HS Code 870192) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **22 487** | **18 276** | **19 116** | **24 032** |
| Thailand | 0 | 17 338 | 14 878 | 16 982 | 21 602 |
| India | 0 | 284 | 123 | 177 | 862 |
| China | 0 | 302 | 47 | 134 | 604 |
| Japan | 0 | 3 436 | 1 826 | 1 609 | 594 |
| Korea | 0 | 1 089 | 1 401 | 214 | 371 |
| USA | 0 | 37 | 0 | 0 | |

1.31) Import: HS Code 8701.93

| Vietnam's imports Tractors, of an engine power > 37 kW but <= 75 kW, excl. those of heading 8709, pedestrian-controlled tractors, road tractors for semi-trailers and track-laying tractors (HS Code 870193) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **9 393** | **10 032** | **11 154** | **11 947** |
| Thailand | 0 | 2 381 | 3427 | 3 530 | 4 073 |
| Japan | 0 | 4 359 | 4 126 | 3 145 | 3 912 |
| India | 0 | 990 | 1 247 | 347 | 1 427 |
| Belarus | 0 | 886 | 196 | 592 | 822 |
| Korea | 0 | 44 | 349 | 481 | 618 |
| Indonesia | 0 | 0 | 0 | 0 | 614 |
| China | 0 | 212 | 16 | 24 | 249 |
| France | 0 | 117 | 0 | 109 | 118 |
| Mexico | 0 | 81 | 147 | 0 | 114 |
| Brazil | 0 | 52 | 0 | 0 | |
| Czech Republic | 0 | 73 | 0 | 66 | |
| Germany | 0 | 0 | 524 | 2842 | |
| **Italy** | **0** | **46** | **0** | **18** | |
| Türkiye | 0 | 17 | 0 | 0 | |
| USA | 0 | 134 | 0 | 0 | |

1.32) Import: HS Code 8701.94

| Vietnam's imports Tractors, of an engine power > 75 kW but <= 130 kW, excl. those of heading 8709, pedestrian-controlled tractors, road tractors for semi-trailers and track-laying tractors (HS Code 870194) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **2 535** | **2 397** | **1 075** | **1 650** |
| Mexico | 0 | 1 498 | 817 | 499 | 1 226 |
| United Kingdom | 0 | 79 | 0 | 0 | 117 |
| Türkiye | 0 | 0 | 115 | 0 | 100 |
| China | 0 | 10 | 40 | 0 | 79 |
| France | 0 | 344 | 1 151 | 407 | 70 |
| Czech Republic | 0 | 0 | 0 | 0 | 57 |
| Brazil | 0 | 79 | 59 | 0 | |
| Belarus | 0 | 67 | 0 | 0 | |
| Germany | 0 | 0 | 70 | 82 | |
| Japan | 0 | 21 | 0 | 0 | |
| India | 0 | 436 | 144 | 0 | |
| Thailand | 0 | 0 | 0 | 87 | |

1.33) Import: HS Code 8701.95

| Vietnam's imports of Tractors, of an engine power > 130 kW, excl. those of heading 8709, pedestrian-controlled tractors, road tractors for semi-trailers and track-laying tractors (HS Code 870195) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **5 477** | **3 252** | **5 907** | **2 338** |
| France | 0 | 0 | 89 | 439 | 1 081 |
| China | 0 | 3 745 | 1 261 | 1 636 | 940 |
| United Kingdom | 0 | 0 | 0 | 0 | 317 |
| Austria | 0 | 0 | 0 | 81 | |
| Belarus | 0 | 10 | 0 | 0 | |
| Germany | 0 | 1 339 | 1 574 | 3 286 | |
| Japan | 0 | 202 | 0 | 0 | |
| Thailand | 0 | 7 | 0 | 0 | |
| USA | 0 | 174 | 329 | 464 | |

1.34) Import: HS Code 8716.20

| Vietnam's imports of Self-loading or self-unloading trailers and semi-trailers for agricultural purposes (HS Code 871620) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Exporters** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **7** | **1** | **64** | **52** |
| Netherlands | 0 | 0 | 0 | 0 | 35 |
| Türkiye | 0 | 0 | 0 | 0 | 17 |
| China | 0 | 0 | 1 | 0 | |
| Germany | 0 | 0 | 0 | 62 | |
| Israel | 0 | 6 | 0 | 0 | |
| Taiwan | 0 | 1 | 0 | 0 | |
| USA | 0 | 0 | 0 | 3 | |

## 2.Vietnam exports

2.1) Export: HS Code 8408.20

| Vietnam's exports of Compression-ignition internal combustion piston engine, diesel or semi-diesel (HS Code 840820) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **147** | **276** | **238** | **251** | **218** |
| Malaysia | 141 | 270 | 229 | 193 | 217 |
| Laos | 1 | 0 | 0 | 0 | 2 |
| Argentina | 5 | 6 | 0 | 5 | 0 |
| Sri Lanka | 0 | 0 | 0 | 34 | 0 |
| Indonesia | 0 | 0 | 3 | 0 | 0 |
| Madagascar | 0 | 0 | 5 | 0 | 0 |
| Russia | 0 | 0 | 0 | 20 | 0 |

2.2) Export: HS Code 8419.31

| Vietnam's exports of Dryers for agricultural products (HS Code 841931) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **2 834** | **2 382** | **964** | **1 040** | **492** |
| Laos | 624 | 129 | 488 | 97 | 154 |
| Indonesia | 849 | 134 | 151 | 505 | 140 |
| Côte d'Ivoire | 73 | 5 | 93 | 126 | 70 |
| Ghana | 0 | 0 | 0 | 17 | 53 |
| India | 16 | 4 | 6 | 17 | 29 |
| Korea | 34 | 38 | 50 | 0 | 20 |

| | | | | | |
|---|---|---|---|---|---|
| Poland | 0 | 0 | 0 | 0 | 12 |
| Nigeria | 0 | 0 | 40 | 90 | 10 |
| Cambodia | 379 | 1 563 | 9 | 57 | 3 |
| Australia | 11 | 0 | 3 | 10 | 1 |
| Area Nes | 88 | 0 | 0 | 0 | |
| Austria | 2 | 7 | 0 | 0 | |
| Myanmar | 32 | 0 | 5 | 0 | |
| Canada | 0 | 0 | 1 | 0 | |
| Sri Lanka | 0 | 0 | 0 | 8 | |
| Chile | 2 | 8 | 0 | 0 | |
| China | 58 | 3 | 0 | 0 | |
| Colombia | 0 | 2 | 0 | 0 | |
| Costa Rica | 23 | 4 | 0 | 0 | |
| Czech Republic | 2 | 0 | 0 | 0 | |
| Denmark | 1 | 0 | 0 | 0 | |
| Germany | 0 | 2 | 0 | 0 | |
| Guinea | 60 | 0 | 0 | 0 | |
| Honduras | 19 | 0 | 0 | 0 | |
| Hong Kong | 2 | 7 | 0 | 0 | |
| Hungary | 5 | 0 | 0 | 0 | |
| **Italy** | **2** | **0** | **0** | **0** | |
| Japan | 3 | 2 | 0 | 0 | |
| Kenya | 5 | 14 | 0 | 0 | |
| Malaysia | 0 | 3 | 8 | 0 | |
| Taiwan | 10 | 1 | 25 | 0 | |
| Mongolia | 1 | 0 | 0 | 0 | |
| Mozambique | 50 | 95 | 35 | 0 | |
| Nicaragua | 8 | 0 | 0 | 0 | |
| Panama | 113 | 0 | 0 | 0 | |
| Peru | 2 | 0 | 0 | 0 | |
| Philippines | 53 | 94 | 0 | 1 | |
| Portugal | 32 | 11 | 0 | 0 | |
| Timor-Leste | 2 | 0 | 0 | 0 | |
| Russia | 19 | 32 | 0 | 0 | |
| Senegal | 0 | 0 | 0 | 5 | |
| Singapore | 8 | 0 | 0 | 8 | |
| Slovakia | 2 | 0 | 0 | 0 | |
| Sweden | 2 | 0 | 0 | 0 | |
| Thailand | 191 | 172 | 43 | 89 | |
| UAE | 16 | 6 | 2 | 0 | |
| Türkiye | 3 | 2 | 0 | 0 | |
| Uganda | 0 | 7 | 0 | 0 | |
| United Kingdom | 6 | 2 | 0 | 5 | |

| | | | | | |
|---|---|---|---|---|---|
| Tanzania | 11 | 19 | 0 | 4 | |
| USA | 13 | 17 | 6 | 0 | |

2.3) Export: HS Code 8424.41

| Vietnam's exports of Portable sprayers (HS Code 842441) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **253** | **282** | **669** | **2 905** |
| USA | 0 | 0 | 56 | 32 | 2 150 |
| Korea | 0 | 24 | 55 | 370 | 561 |
| Switzerland | 0 | 132 | 53 | 106 | 80 |
| Peru | 0 | 21 | 22 | 76 | 35 |
| Cambodia | 0 | 0 | 0 | 0 | 26 |
| Malaysia | 0 | 26 | 16 | 39 | 18 |
| Australia | 0 | 3 | 0 | 22 | 11 |

2.4) Export: HS Code 8424.49

| Vietnam's exports of Agricultural or horticultural sprayers, excl. portable (HS Code 842449) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **43** | **506** | **971** | **601** |
| Cambodia | 0 | 0 | 244 | 702 | 172 |
| Laos | 0 | 1 | 132 | 3 | 161 |
| Poland | 0 | 0 | 0 | 0 | 136 |
| Korea | 0 | 0 | 0 | 105 | 115 |
| Singapore | 0 | 0 | 2 | 0 | 16 |
| Australia | 0 | 0 | 0 | 1 | |
| Myanmar | 0 | 0 | 0 | 16 | |
| Sri Lanka | 0 | 17 | 111 | 0 | |
| Japan | 0 | 7 | 14 | 140 | |
| Malaysia | 0 | 0 | 1 | 0 | |
| Pakistan | 0 | 0 | 0 | 4 | |
| Philippines | 0 | 0 | 3 | 0 | |
| India | 0 | 17 | 0 | 0 | |
| Thailand | 0 | 1 | 0 | 0 | |

2.5) Export: HS Code 8424.82

| Vietnam's exports of Agricultural or horticultural mechanical appliances, whether or not hand-operated, for projecting or dispersing liquids or powders (excl. sprayers) (HS Code 842482) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **243** | **1 201** | **578** | **334** |
| Philippines | 0 | 223 | 532 | 154 | 300 |
| Australia | 0 | 10 | 0 | 0 | 13 |
| Taiwan | 0 | 0 | 0 | 0 | 11 |
| Laos | 0 | 0 | 237 | 219 | 6 |
| Hong Kong | 0 | 0 | 0 | 0 | 4 |
| Mozambique | 0 | 0 | 0 | 0 | 1 |
| Korea | 0 | 0 | 9 | 0 | |
| Cambodia | 0 | 0 | 424 | 193 | |
| Japan | 0 | 0 | 0 | 5 | |
| Malaysia | 0 | 1 | 0 | 8 | |
| Mexico | 0 | 1 | 0 | 0 | |
| Thailand | 0 | 8 | 0 | 0 | |

2.6) Export: HS Code 8427.20

| Vietnam's exports of Self-propelled trucks fitted with lifting or handling equipment, non-powered by an electric motor (HS Code 842720) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **1,422** | **1,316** | **10 603** | **21 288** | **43 192** |
| USA | 0 | 0 | 7 467 | 15 013 | 27 723 |
| Korea | 0 | 0 | 0 | 0 | 9 014 |
| Australia | 16 | 0 | 35 | 1 455 | 1 970 |
| Netherlands | 0 | 0 | 399 | 1 908 | 1 245 |
| Canada | 2 | 0 | 0 | 0 | 749 |
| France | 0 | 0 | 36 | 340 | 531 |
| Singapore | 2 | 28 | 79 | 206 | 233 |
| New Zealand | 0 | 24 | 0 | 27 | 202 |
| Brazil | 0 | 0 | 36 | 633 | 200 |
| Philippines | 630 | 230 | 722 | 29 | 186 |
| Cambodia | 536 | 349 | 766 | 281 | 176 |
| Thailand | 33 | 6 | 0 | 0 | 125 |
| Ecuador | 0 | 0 | 0 | 44 | 98 |
| Germany | 0 | 0 | 0 | 0 | 97 |
| Chile | 0 | 0 | 0 | 0 | 96 |
| United Kingdom | 0 | 0 | 0 | 0 | 91 |
| Taiwan | 0 | 13 | 195 | 425 | 90 |
| Laos | 59 | 234 | 68 | 337 | 84 |
| Japan | 23 | 319 | 424 | 86 | 83 |
| Ghana | 0 | 5 | 0 | 0 | 62 |
| Malaysia | 18 | 3 | 14 | 0 | 44 |
| Indonesia | 0 | 0 | 156 | 0 | 24 |
| UAE | 0 | 0 | 0 | 0 | 21 |
| China | 32 | 28 | 0 | 4 | 17 |
| Myanmar | 16 | 0 | 160 | 74 | 13 |
| Pakistan | 0 | 0 | 3 | 0 | 10 |
| Cameroon | 0 | 64 | 22 | 0 | 7 |
| Bulgaria | 0 | 6 | 0 | 0 | |
| Costa Rica | 0 | 0 | 0 | 222 | |
| Mozambique | 0 | 8 | 0 | 0 | |
| Nigeria | 56 | 0 | 0 | 0 | |
| Panama | 0 | 0 | 0 | 37 | |
| Poland | 0 | 0 | 0 | 125 | |
| India | 0 | 0 | 20 | 43 | |

2.7) Export: HS Code 8428.90

| Vietnam's exports of Machinery for lifting, handling, loading or Unloading (HS Code 842890) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **8 165** | **11 089** | **12 194** | **11 502** | **13 186** |
| Japan | 4 580 | 4 008 | 4 923 | 4,644 | 3 984 |
| Mexico | 0 | 577 | 0 | 0 | 3 372 |
| Canada | 0 | 0 | 77 | 824 | 1 712 |
| USA | 0 | 2 | 200 | 1 163 | 1 416 |
| Denmark | 501 | 457 | 305 | 292 | 532 |
| Korea | 0 | 2 398 | 4 161 | 1 043 | 527 |
| Russia | 0 | 0 | 0 | 355 | 232 |
| India | 0 | 691 | 52 | 0 | 192 |
| Indonesia | 58 | 33 | 83 | 121 | 181 |
| China | 0 | 434 | 174 | 26 | 122 |
| Taiwan | 2 288 | 0 | 72 | 2,221 | 113 |
| Spain | 0 | 0 | 0 | 0 | 110 |
| Sweden | 269 | 269 | 134 | 237 | 110 |
| Tunisia | 0 | 0 | 0 | 0 | 93 |
| Norway | 0 | 0 | 0 | 0 | 91 |
| Türkiye | 0 | 0 | 0 | 0 | 85 |
| Brazil | 0 | 0 | 3 | 0 | 76 |
| **Italy** | **0** | **0** | **113** | **76** | **33** |
| Hong Kong | 0 | 65 | 280 | 91 | 30 |
| Costa Rica | 0 | 0 | 0 | 0 | 29 |
| Belgium | 0 | 0 | 0 | 0 | 27 |
| Germany | 0 | 0 | 0 | 0 | 24 |
| United Kingdom | 0 | 0 | 0 | 0 | 22 |
| Laos | 109 | 0 | 0 | 0 | 20 |
| Philippines | 2 | 0 | 8 | 0 | 17 |
| Thailand | 162 | 1 769 | 582 | 10 | 16 |
| Israel | 0 | 0 | 0 | 11 | 12 |
| UAE | 2 | 0 | 0 | 7 | 7 |
| Australia | 0 | 0 | 0 | 0 | 1 |
| Malaysia | 4 | 10 | 143 | 98 | 1 |
| Algeria | 0 | 70 | 0 | 0 | |
| Bangladesh | 0 | 0 | 312 | 0 | |
| Brunei | 0 | 0 | 0 | 8 | |
| Myanmar | 82 | 199 | 115 | 36 | |
| Cambodia | 6 | 0 | 92 | 141 | |
| Sri Lanka | 0 | 0 | 0 | 6 | |
| Chile | 0 | 36 | 0 | 0 | |
| France | 0 | 0 | 6 | 11 | |

| | | | | | |
|---|---|---|---|---|---|
| Hungary | 51 | 0 | 0 | 0 | |
| Côte d'Ivoire | 0 | 0 | 15 | 15 | |
| Netherlands | 0 | 0 | 5 | 0 | |
| New Zealand | 1 | 1 | 0 | 0 | |
| Peru | 0 | 0 | 22 | 0 | |
| Saudi Arabia | 17 | 0 | 317 | 66 | |
| Singapore | 34 | 0 | 0 | 0 | |
| Egypt | 0 | 71 | 0 | 0 | |

2.8) Export: HS Code 8432.10

| Vietnam's exports of Ploughs for use in agriculture, horticulture or forestry (HS Code 843210) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **4 566** | **1 334** | **1 637** | **1 934** | **3 422** |
| USA | 1 736 | 274 | 372 | 306 | 2 171 |
| India | 51 | 126 | 57 | 310 | 492 |
| France | 8 | 103 | 12 | 109 | 294 |
| Sri Lanka | 1 672 | 611 | 852 | 786 | 138 |
| Netherlands | 3 | 0 | 0 | 35 | 73 |
| United Kingdom | 0 | 19 | 5 | 0 | 50 |
| Canada | 10 | 1 | 3 | 2 | 35 |
| **Italy** | **0** | **0** | **0** | **53** | **35** |
| Uruguay | 0 | 0 | 0 | 57 | 28 |
| Germany | 0 | 0 | 0 | 40 | 27 |
| Australia | 14 | 62 | 0 | 21 | 26 |
| Belgium | 0 | 0 | 0 | 0 | 16 |
| Taiwan | 18 | 15 | 27 | 4 | 12 |
| Philippines | 1 | 0 | 97 | 6 | 12 |
| Cambodia | 69 | 3 | 9 | 84 | 10 |
| Ghana | 9 | 0 | 0 | 0 | 2 |
| Area Nes | 302 | 0 | 0 | 0 | |
| Angola | 0 | 1 | 0 | 0 | |
| Bangladesh | 83 | 0 | 0 | 0 | |
| Brunei | 0 | 19 | 0 | 0 | |
| Denmark | 0 | 0 | 3 | 0 | |
| Dominican Republic | 0 | 0 | 0 | 13 | |
| Hong Kong | 0 | 21 | 0 | 0 | |
| Indonesia | 214 | 10 | 0 | 0 | |
| Japan | 335 | 52 | 3 | 1 | |
| Laos | 0 | 1 | 125 | 103 | |
| Malaysia | 7 | 0 | 31 | 0 | |
| Morocco | 0 | 2 | 0 | 0 | |
| Panama | 11 | 10 | 30 | 0 | |
| Singapore | 1 | 0 | 0 | 0 | |
| Spain | 22 | 0 | 0 | 0 | |
| UAE | 0 | 0 | 0 | 3 | |
| Egypt | 0 | 0 | 0 | 2 | |
| Tanzania | 1 | 5 | 13 | 0 | |

2.9) Export: HS Code 8432.21

| Vietnam's exports of Disc harrows for use in agriculture, horticulture or forestry (HS Code 843221) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **45** | **16** | **0** | **109** | **100** |
| Cambodia | 0 | 0 | 0 | 0 | 100 |
| Laos | 45 | 16 | 0 | 109 | |

2.10) Export: HS Code 8432.29

| Vietnam's exports of Harrows, scarifiers, cultivators, weeders and hoes for use in agriculture, horticulture or forestry, excluding disc harrows (HS Code 843229) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **743** | **1 035** | **1 790** | **1 198** | **22 187** |
| USA | 380 | 552 | 1 533 | 1 036 | 21 187 |
| Sri Lanka | 0 | 0 | 0 | 0 | 777 |
| India | 0 | 0 | 1 | 0 | 162 |
| Philippines | 28 | 331 | 159 | 80 | 20 |
| **Italy** | **2** | **3** | **0** | **0** | **16** |
| Laos | 109 | 0 | 1 | 0 | 11 |
| Thailand | 3 | 2 | 0 | 0 | 7 |
| Ghana | 0 | 0 | 0 | 0 | 3 |
| Hong Kong | 0 | 0 | 0 | 0 | 3 |
| Russia | 0 | 0 | 0 | 1 | 1 |
| Bangladesh | 0 | 1 | 0 | 0 | |
| Myanmar | 153 | 29 | 0 | 9 | |
| Cambodia | 0 | 0 | 1 | 32 | |
| Canada | 0 | 4 | 9 | 0 | |
| China | 0 | 1 | 0 | 0 | |
| Fiji | 1 | 0 | 0 | 0 | |
| France | 0 | 0 | 13 | 21 | |
| Germany | 2 | 0 | 18 | 0 | |
| Indonesia | 55 | 108 | 36 | 0 | |
| Japan | 2 | 2 | 2 | 1 | |
| Malaysia | 1 | 0 | 0 | 0 | |
| Taiwan | 3 | 0 | 17 | 13 | |
| Netherlands | 3 | 0 | 0 | 0 | |
| Nigeria | 3 | 0 | 0 | 0 | |
| Singapore | 0 | 1 | 0 | 0 | |
| Tanzania | 0 | 0 | 0 | 5 | |
| Uruguay | 0 | 2 | 0 | 0 | |

2.11) Export: HS Code 8432.31

| Vietnam's exports of No-till direct seeders, planters and transplanters (HS Code 843231) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **108** | **197** | **226** | **185** |
| Myanmar | 0 | 42 | 163 | 72 | 142 |
| Cambodia | 0 | 0 | 0 | 120 | 16 |
| Indonesia | 0 | 0 | 0 | 0 | 10 |
| Pakistan | 0 | 0 | 0 | 0 | 5 |
| Nigeria | 0 | 0 | 0 | 0 | 3 |
| Thailand | 0 | 16 | 30 | 14 | 3 |
| Laos | 0 | 0 | 0 | 6 | 2 |
| USA | 0 | 0 | 0 | 0 | 2 |
| Malaysia | 0 | 43 | 4 | 10 | 1 |
| Singapore | 0 | 0 | 0 | 0 | 1 |
| Sri Lanka | 0 | 0 | 0 | 2 | |
| Philippines | 0 | 0 | 0 | 1 | |
| India | 0 | 2 | 0 | 0 | |
| Tanzania | 0 | 0 | 0 | 2 | |
| Venezuela | 0 | 4 | 0 | 0 | |

2.12) Export: HS Code 8432.39

| Vietnam's exports of Seeders, planters and transplanters, excl. no-till machines (HS Code 843239) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **91** | **40** | **67** | **436** |
| USA | 0 | 0 | 0 | 0 | 322 |
| Indonesia | 0 | 1 | 0 | 4 | 40 |
| Philippines | 0 | 12 | 22 | 57 | 22 |
| Bangladesh | 0 | 0 | 1 | 0 | 15 |
| Thailand | 0 | 0 | 0 | 0 | 12 |
| India | 0 | 1 | 6 | 3 | 5 |
| Pakistan | 0 | 0 | 0 | 0 | 4 |
| Tanzania | 0 | 0 | 0 | 0 | 4 |
| Ghana | 0 | 0 | 0 | 0 | 3 |
| Malaysia | 0 | 1 | 3 | 2 | 3 |
| Sri Lanka | 0 | 0 | 0 | 0 | 2 |
| Peru | 0 | 0 | 0 | 0 | 2 |
| Taiwan | 0 | 0 | 0 | 0 | 1 |
| Myanmar | 0 | 30 | 0 | 0 | |
| Costa Rica | 0 | 0 | 3 | 0 | |
| France | 0 | 0 | 1 | 0 | |
| Japan | 0 | 0 | 5 | 0 | |
| Laos | 0 | 46 | 0 | 0 | |
| Singapore | 0 | 0 | 0 | 1 | |

2.13) Export: HS Code 8432.41

| Vietnam's exports of Manure spreaders, excl. sprayers (HS Code 843241) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **0** | **0** | **0** | **0** |

2.14) Export: HS Code 8432.42

| Vietnam's exports Fertiliser distributors, excl. sprayers and manure spreaders (HS Code 843242) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **0** | **1** | **40** | **0** |
| Cambodia | 0 | 0 | 0 | 8 | |
| Hong Kong | 0 | 0 | 1 | 0 | |
| Laos | 0 | 0 | 0 | 33 | |

2.15) Export: HS Code 8432.80

| Vietnam's exports of Agricultural, horticultural or forestry machinery for soil preparation or cultivation; lawn or sports-ground rollers (excluding sprayers and dusters, ploughs, harrows, scarifiers, cultivators, weeders, hoes, seeders, planters, manure spreaders and fertiliser distributors) (HS Code 843280) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **733** | **627** | **488** | **895** | **1 069** |
| Netherlands | 0 | 0 | 0 | 311 | 563 |
| Philippines | 0 | 315 | 204 | 246 | 324 |
| USA | 2 | 126 | 232 | 307 | 139 |
| Laos | 726 | 0 | 10 | 9 | 38 |
| Nigeria | 3 | 0 | 0 | 0 | 4 |
| Russia | 0 | 0 | 3 | 1 | 1 |
| Australia | 0 | 133 | 0 | 0 | |
| Cambodia | 0 | 27 | 8 | 0 | |
| Sri Lanka | 0 | 0 | 1 | 0 | |
| Germany | 0 | 12 | 0 | 0 | |
| Ghana | 1 | 0 | 0 | 0 | |
| Japan | 0 | 3 | 1 | 0 | |
| Malaysia | 0 | 10 | 16 | 21 | |
| Taiwan | 1 | 0 | 0 | 0 | |
| India | 0 | 0 | 9 | 0 | |
| Thailand | 0 | 1 | 0 | 0 | |
| Tanzania | 0 | 0 | 5 | 0 | |

2.16) Export: HS Code 8432.90

| Vietnam's exports of arts of agricultural, horticultural or forestry machinery for soil preparation or cultivation or of lawn or sports-ground rollers (HS Code 843290) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **9 473** | **9 519** | **9 602** | **9 006** | **17 389** |
| USA | 4 526 | 6 032 | 5 451 | 5 146 | 10 621 |
| Japan | 2 934 | 1 154 | 1 739 | 1 605 | 2 660 |
| Canada | 0 | 56 | 0 | 81 | 1 194 |
| Denmark | 407 | 817 | 916 | 764 | 911 |
| Indonesia | 513 | 419 | 553 | 436 | 747 |
| Philippines | 466 | 233 | 339 | 194 | 467 |
| Australia | 10 | 29 | 4 | 177 | 336 |
| Sri Lanka | 61 | 431 | 168 | 217 | 325 |
| Cambodia | 39 | 12 | 144 | 70 | 54 |
| Laos | 313 | 253 | 25 | 16 | 35 |
| Netherlands | 23 | 25 | 0 | 34 | 22 |
| Thailand | 0 | 0 | 22 | 2 | 5 |
| China | 0 | 3 | 39 | 159 | 4 |
| Argentina | 0 | 0 | 0 | 0 | 3 |
| Taiwan | 5 | 1 | 4 | 13 | 1 |
| India | 101 | 0 | 59 | 48 | 1 |
| Spain | 0 | 0 | 0 | 1 | 1 |
| Korea | 0 | 0 | 14 | 1 | |
| Area Nes | 23 | 0 | 0 | 0 | |
| Bangladesh | 2 | 11 | 74 | 1 | |
| Brunei | 0 | 5 | 0 | 0 | |
| Myanmar | 2 | 3 | 1 | 6 | |
| Colombia | 1 | 7 | 0 | 0 | |
| Dominican Republic | 4 | 13 | 0 | 35 | |
| Germany | 0 | 0 | 3 | 1 | |
| Greece | 23 | 14 | 0 | 0 | |
| Hong Kong | 0 | 0 | 44 | 0 | |
| Hungary | 0 | 0 | 2 | 0 | |
| Lithuania | 16 | 0 | 0 | 0 | |
| Malaysia | 0 | 0 | 0 | 1 | |
| Nigeria | 1 | 0 | 0 | 0 | |
| Panama | 0 | 1 | 2 | 0 | |
| Papua New Guinea | 1 | 0 | 0 | 0 | |
| Russia | 0 | 0 | 1 | 0 | |

2.17) Export: HS Code 8433.20

| Vietnam's exports of Mowers, incl. cutter bars for tractor, excluding mowers for lawns, parks or sports grounds (HS Code 843320) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **2 314** | **3 410** | **826** | **11 117** | **11 083** |
| USA | 0 | 0 | 167 | 10 087 | 10 226 |
| Philippines | 259 | 469 | 129 | 330 | 510 |
| Canada | 0 | 0 | 0 | 252 | 173 |
| Bangladesh | 1 715 | 2 605 | 246 | 3 | 110 |
| Peru | 7 | 19 | 27 | 0 | 45 |
| Singapore | 0 | 29 | 0 | 0 | 18 |
| Korea | 8 | 0 | 0 | 0 | |
| Brunei | 0 | 0 | 0 | 9 | |
| Myanmar | 157 | 124 | 0 | 0 | |
| Cambodia | 0 | 0 | 1 | 0 | |
| Chile | 0 | 0 | 0 | 56 | |
| Dominican Republic | 0 | 0 | 0 | 4 | |
| Ghana | 9 | 0 | 51 | 0 | |
| Indonesia | 0 | 0 | 2 | 0 | |
| Japan | 0 | 8 | 0 | 0 | |
| Laos | 0 | 0 | 0 | 5 | |
| Taiwan | 1 | 0 | 0 | 1 | |
| Morocco | 0 | 19 | 0 | 0 | |
| Nigeria | 3 | 0 | 0 | 0 | |
| India | 152 | 134 | 203 | 331 | |
| Spain | 0 | 2 | 0 | 0 | |
| Egypt | 0 | 0 | 0 | 40 | |
| United Kingdom | 0 | 0 | 1 | 0 | |
| Tanzania | 3 | 0 | 0 | 0 | |

2.18) Export: HS Code 8433.30

| Vietnam's exports of Haymaking machinery, excluding mowers (HS Code 843330) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **0** | **0** | **76** | **0** |
| Laos | 0 | 0 | 0 | 76 | 0 |

2.19) Export: HS Code 8433.40

| Vietnam's exports of Straw or fodder balers, incl. pick-up balers (HS Code 843340) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **15** | **3** | **62** | **264** | **378** |
| Cambodia | 0 | 3 | 48 | 103 | 374 |
| Philippines | 0 | 0 | 0 | 23 | 4 |
| Myanmar | 0 | 0 | 0 | 130 | |
| China | 0 | 0 | 13 | 0 | |
| Japan | 4 | 0 | 0 | 0 | |
| Laos | 8 | 0 | 0 | 0 | |
| Netherlands | 0 | 0 | 0 | 8 | |
| India | 2 | 0 | 0 | 0 | |

2.20) Export: HS Code 8433.51

| Vietnam's exports of Combine harvester-threshers (HS Code 843351) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **10 148** | **8 067** | **3 869** | **7 113** | **6 159** |
| Philippines | 9 446 | 6 327 | 2 828 | 5 378 | 5 530 |
| Dominican Republic | 511 | 1,345 | 666 | 953 | 563 |
| Ghana | 0 | 0 | 0 | 0 | 42 |
| Pakistan | 22 | 16 | 0 | 0 | 12 |
| Sri Lanka | 0 | 0 | 0 | 0 | 10 |
| Brunei | 0 | 31 | 0 | 0 | 1 |
| Korea | 0 | 21 | 35 | 0 | |
| Bangladesh | 15 | 0 | 0 | 0 | |
| Cambodia | 0 | 38 | 73 | 682 | |
| China | 0 | 27 | 0 | 0 | |
| Guinea | 78 | 0 | 0 | 0 | |
| **Italy** | **16** | **0** | **0** | **0** | |
| Laos | 1 | 0 | 0 | 51 | |
| Morocco | 0 | 1 | 0 | 0 | |
| India | 0 | 51 | 0 | 0 | |
| Thailand | 0 | 0 | 84 | 0 | |
| Egypt | 0 | 1 | 0 | 0 | |
| Tanzania | 60 | 170 | 184 | 50 | |
| Venezuela | 0 | 41 | 0 | 0 | |

2.21) Export: HS Code 8433.52

| Vietnam's exports of Threshing machinery, excluding combine harvester-threshers (HS Code 843352) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **44** | **3** | **21** | **72** | **73** |
| Ghana | 0 | 0 | 18 | 59 | 71 |
| Belgium | 0 | 0 | 0 | 0 | 2 |
| Laos | 5 | 1 | 1 | 11 | 1 |
| Korea | 0 | 2 | 1 | 0 | |
| China | 38 | 0 | 0 | 0 | |
| Malaysia | 0 | 0 | 0 | 1 | |
| New Zealand | 0 | 0 | 2 | 0 | |

2.22) Export: HS Code 8433.53

| Vietnam's exports of Root or tuber harvesting machines (HS Code 843353) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **9** | **0** | **0** | **0** | **0** |
| Japan | 9 | 0 | 0 | 0 | 0 |

2.23) Export: HS Code 8433.59

| Vietnam's exports of Harvesting machinery for agricultural produce (excluding mowers, haymaking machinery, straw and fodder balers, incl. pick-up balers, combine harvester-threshers, other threshing machinery and root or tuber harvesting machines) (HS Code 843359) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **413** | **708** | **394** | **304** | **845** |
| Bangladesh | 0 | 197 | 285 | 193 | 762 |
| Australia | 0 | 354 | 49 | 94 | 33 |
| Laos | 0 | 12 | 0 | 6 | 25 |
| Ghana | 0 | 0 | 0 | 0 | 7 |
| Nigeria | 0 | 0 | 0 | 0 | 5 |
| Japan | 0 | 0 | 0 | 0 | 4 |
| Kenya | 0 | 0 | 0 | 0 | 3 |
| South Africa | 0 | 0 | 0 | 0 | 3 |
| Egypt | 0 | 0 | 0 | 0 | 2 |
| Pakistan | 0 | 0 | 0 | 0 | 1 |
| Korea | 0 | 0 | 1 | 0 | |
| Algeria | 3 | 0 | 0 | 0 | |
| Brazil | 1 | 34 | 0 | 0 | |
| Myanmar | 0 | 0 | 17 | 0 | |

| | | | | | |
|---|---|---|---|---|---|
| Cambodia | 79 | 0 | 0 | 0 | |
| Colombia | 0 | 19 | 0 | 0 | |
| Dominican Republic | 0 | 0 | 0 | 11 | |
| Guinea | 276 | 0 | 0 | 0 | |
| Indonesia | 9 | 5 | 0 | 0 | |
| **Italy** | **1** | **0** | **0** | **0** | |
| Côte d'Ivoire | 27 | 19 | 0 | 0 | |
| Philippines | 12 | 29 | 26 | 0 | |
| India | 0 | 39 | 0 | 0 | |
| Thailand | 6 | 0 | 0 | 0 | |
| Tanzania | 0 | 1 | 16 | 0 | |

2.24) Export: HS Code 8433.90

| **Vietnam's exports of arts of harvesting machinery, threshing machinery, mowers and machines for cleaning, sorting or grading agricultural produce (HS Code 843390) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **1 987** | **2 577** | **2 298** | **8 922** | **52 800** |
| USA | 445 | 457 | 392 | 4 333 | 46 813 |
| China | 0 | 2 | 1 | 1 681 | 2 533 |
| Philippines | 1 150 | 831 | 502 | 1 286 | 1 175 |
| Thailand | 107 | 326 | 383 | 416 | 687 |
| Japan | 15 | 91 | 73 | 66 | 655 |
| Myanmar | 0 | 171 | 405 | 197 | 279 |
| Indonesia | 25 | 337 | 190 | 51 | 243 |
| Bangladesh | 25 | 152 | 19 | 2 | 141 |
| Dominican Republic | 29 | 22 | 92 | 307 | 117 |
| Cambodia | 70 | 111 | 130 | 92 | 71 |
| India | 77 | 35 | 8 | 39 | 64 |
| Hong Kong | 0 | 0 | 33 | 71 | 11 |
| Peru | 0 | 3 | 2 | 0 | 8 |
| Australia | 0 | 0 | 0 | 0 | 2 |
| United Kingdom | 0 | 0 | 0 | 0 | 2 |
| Singapore | 0 | 0 | 0 | 0 | 1 |
| Area Nes | 1 | 0 | 0 | 0 | |
| Belgium | 0 | 0 | 0 | 3 | |
| Chile | 0 | 0 | 0 | 357 | |
| Colombia | 6 | 12 | 0 | 0 | |
| Ghana | 0 | 0 | 0 | 2 | |
| Laos | 15 | 9 | 12 | 10 | |
| Malaysia | 1 | 0 | 0 | 0 | |
| Taiwan | 0 | 0 | 22 | 9 | |
| Morocco | 0 | 1 | 0 | 0 | |
| Netherlands | 0 | 0 | 2 | 0 | |
| Tanzania | 22 | 17 | 34 | 0 | |

2.25) Export: HS Code 8436.10

| Vietnam's exports of Machinery for preparing animal feeding stuffs in agricultural holdings and similar undertakings, excluding machinery for the feeding stuff industry, forage harvesters and autoclaves for cooking fodder (HS Code 843610) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **1 671** | **3 370** | **2 925** | **5 357** | **2 018** |
| Bangladesh | 1 264 | 2 318 | 0 | 292 | 678 |
| France | 218 | 179 | 220 | 333 | 672 |
| Indonesia | 38 | 369 | 454 | 1 580 | 474 |
| India | 0 | 0 | 0 | 0 | 67 |
| Taiwan | 0 | 0 | 0 | 54 | 38 |
| Cambodia | 1 | 76 | 23 | 1 555 | 36 |
| **Italy** | **0** | **0** | **0** | **0** | **31** |
| Korea | 0 | 2 | 8 | 2 | 18 |
| Thailand | 18 | 0 | 0 | 0 | 4 |
| Singapore | 0 | 0 | 75 | 82 | 2 |
| Area Nes | 1 | 0 | 0 | 0 | |
| Australia | 3 | 5 | 0 | 33 | |
| Brunei | 0 | 2 | 0 | 0 | |
| Myanmar | 0 | 234 | 1 131 | 1 048 | |
| Chile | 0 | 104 | 0 | 0 | |
| China | 20 | 3 | 0 | 33 | |
| Czech Republic | 0 | 1 | 0 | 0 | |
| Germany | 0 | 1 | 0 | 0 | |
| Ghana | 0 | 2 | 0 | 0 | |
| Kenya | 0 | 1 | 0 | 0 | |
| Laos | 0 | 51 | 4 | 264 | |
| Malaysia | 29 | 0 | 1 010 | 36 | |
| Nigeria | 68 | 0 | 0 | 45 | |
| Saudi Arabia | 0 | 22 | 0 | 0 | |
| South Africa | 0 | 1 | 0 | 0 | |
| United Kingdom | 2 | 1 | 0 | 0 | |
| USA | 6 | 0 | 0 | 0 | |
| Uzbekistan | 2 | 0 | 0 | 0 | |

2.26) Export: HS Code 8436.80

| Vietnam's exports of Agricultural, horticultural, forestry or bee-keeping machinery (HS Code 843680) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **201** | **1,597** | **1,036** | **230** | **1 623** |
| USA | 0 | 0 | 1 | 4 | 1 546 |
| Côte d'Ivoire | 0 | 0 | 0 | 0 | 42 |
| Peru | 0 | 0 | 0 | 0 | 11 |
| Indonesia | 0 | 176 | 29 | 32 | 10 |
| Tanzania | 0 | 0 | 0 | 0 | 5 |
| China | 0 | 0 | 3 | 2 | 4 |
| Laos | 0 | 0 | 17 | 10 | 4 |
| Japan | 0 | 5 | 0 | 0 | 2 |
| Korea | 0 | 24 | 5 | 0 | |
| Australia | 187 | 123 | 0 | 65 | |
| Bangladesh | 0 | 4 | 0 | 0 | |
| Myanmar | 13 | 7 | 0 | 0 | |
| Cambodia | 0 | 0 | 44 | 108 | |
| Canada | 0 | 89 | 0 | 0 | |
| Chile | 0 | 844 | 311 | 0 | |
| Germany | 0 | 1 | 6 | 0 | |
| Ghana | 0 | 0 | 7 | 0 | |
| Israel | 1 | 0 | 0 | 0 | |
| Malaysia | 0 | 12 | 0 | 0 | |
| Mexico | 0 | 77 | 0 | 0 | |
| Mozambique | 0 | 168 | 93 | 10 | |
| Norway | 0 | 67 | 24 | 0 | |
| Russia | 0 | 0 | 302 | 0 | |
| Singapore | 0 | 0 | 195 | 0 | |

2.27) Export: HS Code 8701.10

| Vietnam's exports of Pedestrian-controlled agricultural tractors and similar tractors for industry, excluding tractor units for articulated lorries (HS Code 870110) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **49** | **2 152** | **1 014** | **2 575** | **2 554** |
| Philippines | 0 | 659 | 898 | 1,99 | 2,554 |
| Angola | 0 | 0 | 15 | 35 | |
| Australia | 0 | 227 | 0 | 0 | |
| Belgium | 0 | 61 | 0 | 0 | |
| Cambodia | 0 | 0 | 0 | 550 | |
| Canada | 13 | 0 | 1 | 0 | |

| | | | | | |
|---|---|---|---|---|---|
| Chile | 0 | 0 | 15 | 0 | |
| France | 36 | 0 | 0 | 0 | |
| Germany | 0 | 76 | 38 | 0 | |
| Hungary | 0 | 30 | 0 | 0 | |
| **Italy** | **0** | **63** | **0** | **0** | |
| Japan | 0 | 1 | 0 | 0 | |
| Lithuania | 0 | 0 | 48 | 0 | |
| Netherlands | 0 | 59 | 0 | 0 | |
| Portugal | 0 | 50 | 0 | 0 | |
| Russia | 0 | 12 | 0 | 0 | |
| Spain | 0 | 87 | 0 | 0 | |
| Egypt | 0 | 7 | 0 | 0 | |
| United Kingdom | 0 | 458 | 0 | 0 | |
| USA | 0 | 271 | 0 | 0 | |
| Venezuela | 0 | 93 | 0 | 0 | |

2.28) Export: HS Code 8701.30

| **Vietnam's exports of Track-laying tractors, excluding pedestrian-controlled (HS Code 870130) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **0** | **11** | **45** | **24** |
| Laos | 0 | 0 | 11 | 0 | 24 |
| Philippines | 0 | 0 | 0 | 45 | 0 |

2.29) Export: HS Code 8701.91

| **Vietnam's exports of Tractors, of an engine power <= 18 kW, excl. those of heading 8709, pedestrian-controlled tractors, road tractors for semi-trailers and track-laying tractors (HS Code 870191) in thousand USD (2017 – 2021)** | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **5 182** | **6 294** | **7 865** | **4,759** |
| Philippines | 0 | 1 547 | 2 401 | 3 916 | 1 398 |
| Netherlands | 0 | 2 295 | 1 752 | 1 665 | 1 370 |
| Germany | 0 | 125 | 292 | 1 121 | 882 |
| **Italy** | **0** | **152** | **157** | **124** | **311** |
| United Kingdom | 0 | 14 | 494 | 269 | 227 |
| Belgium | 0 | 106 | 170 | 71 | 135 |
| USA | 0 | 12 | 157 | 251 | 108 |
| Uruguay | 0 | 109 | 162 | 35 | 105 |
| Spain | 0 | 25 | 140 | 138 | 62 |
| Australia | 0 | 220 | 170 | 113 | 55 |
| Chile | 0 | 0 | 0 | 0 | 51 |

| | | | | | |
|---|---|---|---|---|---|
| France | 0 | 420 | 315 | 92 | 35 |
| Panama | 0 | 0 | 0 | 0 | 20 |
| Cambodia | 0 | 7 | 0 | 0 | |
| Canada | 0 | 0 | 0 | 8 | |
| Colombia | 0 | 37 | 0 | 0 | |
| Hungary | 0 | 26 | 45 | 41 | |
| Japan | 0 | 6 | 0 | 0 | |
| Taiwan | 0 | 21 | 0 | 0 | |
| Norway | 0 | 0 | 10 | 0 | |
| Portugal | 0 | 11 | 10 | 0 | |
| Tanzania | 0 | 49 | 20 | 21 | |

2.30) Export: HS Code 8701.92

**Vietnam's exports of Tractors, of an engine power > 18 kW but <= 37 kW, excl. those of heading 8709, pedestrian-controlled tractors, road tractors for semi-trailers and track-laying tractors (HS Code 870192) in thousand USD (2017 – 2021)**

| Importers | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **World** | **0** | **4 764** | **3 259** | **3 596** | **3 969** |
| USA | 0 | 1 309 | 1 213 | 1 309 | 1 209 |
| Australia | 0 | 756 | 403 | 635 | 919 |
| Philippines | 0 | 379 | 93 | 111 | 752 |
| Netherlands | 0 | 1 011 | 973 | 1 093 | 643 |
| Uruguay | 0 | 343 | 346 | 236 | 174 |
| Laos | 0 | 0 | 0 | 0 | 103 |
| United Kingdom | 0 | 265 | 73 | 112 | 99 |
| Sri Lanka | 0 | 284 | 0 | 0 | 39 |
| Cambodia | 0 | 0 | 3 | 37 | 24 |
| Dominican Republic | 0 | 108 | 0 | 0 | 6 |
| Germany | 0 | 180 | 109 | 0 | 1 |
| Korea | 0 | 0 | 16 | 0 | |
| Ukraine | 0 | 105 | 0 | 0 | |
| Belgium | 0 | 4 | 0 | 0 | |
| China | 0 | 0 | 0 | 64 | |
| France | 0 | 3 | 0 | 0 | |
| Japan | 0 | 0 | 4 | 0 | |
| Norway | 0 | 0 | 10 | 0 | |
| Slovenia | 0 | 7 | 0 | 0 | |
| Thailand | 0 | 10 | 18 | 0 | |

2.31) Export: HS Code 8701.93

| Vietnam's exports of Tractors, of an engine power > 37 kW but <= 75 kW, excl. those of heading 8709, pedestrian-controlled tractors, road tractors for semi-trailers and track-laying tractors (HS Code 870193) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **1 276** | **2 015** | **459** | **1 763** |
| Philippines | 0 | 593 | 600 | 59 | 895 |
| Cambodia | 0 | 522 | 1 135 | 295 | 697 |
| Saudi Arabia | 0 | 0 | 0 | 0 | 112 |
| Laos | 0 | 95 | 265 | 0 | 46 |
| Malaysia | 0 | 22 | 0 | 0 | 13 |
| Korea | 0 | 16 | 14 | 0 | |
| Dominican Republic | 0 | 15 | 0 | 87 | |
| Peru | 0 | 0 | 0 | 18 | |
| Thailand | 0 | 12 | 0 | | |

2.32) Export: HS Code 8701.94

| Vietnam's exports of Tractors, of an engine power > 75 kW but <= 130 kW, excl. those of heading 8709, pedestrian-controlled tractors, road tractors for semi-trailers and track-laying tractors) (HS Code 870194) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **0** | **764** | **55** | **739** |
| Malaysia | 0 | 0 | 0 | 0 | 492 |
| Laos | 0 | 0 | 46 | 0 | 153 |
| Cambodia | 0 | 0 | 718 | 55 | 94 |

2.33) Export: HS Code 8701.95

| Vietnam's exports of Tractors, of an engine power > 130 kW, excl. those of heading 8709, pedestrian-controlled tractors, road tractors for semi-trailers and track-laying tractors (HS Code 870195) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **224** | **43** | **4** | **358** |
| Cambodia | 0 | 22 | 16 | 4 | 358 |
| Korea | 0 | 0 | 24 | 0 | |
| Canada | 0 | 0 | 1 | 0 | |
| Japan | 0 | 1 | 0 | 0 | |
| Laos | 0 | 0 | 1 | 0 | |
| Philippines | 0 | 200 | 0 | 0 | |

2.34) Export: HS Code 8716.20

| Vietnam's exports of Self-loading or self-unloading trailers and semi-trailers for agricultural purposes (HS Code 871620) in thousand USD (2017 – 2021) | | | | | |
|---|---|---|---|---|---|
| **Importers** | **2017** | **2018** | **2019** | **2020** | **2021** |
| **World** | **0** | **209** | **4** | **0** | **0** |
| Laos | 0 | 209 | 0 | 0 | |
| Taiwan | 0 | 0 | 1 | 0 | |
| Thailand | 0 | 0 | 3 | 0 | |

## Appendix 3 – List of importing companies in Vietnam with at least 5 different HS Codes from Appendix 1 in portfolio *(Source: customs declarations)*

1. **A Sang Trading Services Co., Ltd. (A Sang Co., Ltd.)**
   - Address: 30/178 (230), Quarter 8, Street 11, Truong Tho Ward, Thu Duc District, Truong Tho, Thu Duc, Ho Chi Minh City
   - Director: Mr. Ly A Nhi (Managing Director Sales)
   - Telephone: 0283 7311 540
   - Number of employees: 15
   - Turnover (USD): 539,319
   - Description: Buy and sell special-use vehicles, motor vehicles. Wholesale of cars (type 12 seats or less)
2. **Binh Minh Plastics Joint Stock Company**
   - Address: 40 Hậu Giang, Phường 9, Quận 6, TP. HCM
   - Phone: 0283969 0973
   - Fax: 0283960 6814
   - Contact name: Hoang Ngan Nguyen (Director-General)
   - Phone: 0839694524
   - Email: binhminh@binhminhplastic.com.vn/ binhminhplas@hcm.fpt.vn
   - Website: https://www.binhminhplastic.com.vn
   - Number of employees: 758
   - Turnover (USD): N/A
   - Description: Manufacturing and trading plastic Equipment: PVC-U PIPE, PVC-US PARTS, Irrigation PARTS, PEHD TUBE, PEHD PARTS, PE Ribbed TUBE, PE Ribbed Pipe Fittings Aand PE Ribbed Gasket Gaskets, PP-R PIPE, PP-R PARTS, Glue And Rubber Gaskets, Sprayers & LABOR PROTECTION CODE
3. **BONG LUA AGRICULTURAL MACHINERY COMPANY LIMITED**
   - Address: 783 Khu phố 2 Kinh Dương Vương, Phường An Lạc, Quận Bình Tân, Thành phố Hồ Chí Minh, Việt Nam
   - Representative NGUYỄN XUÂN TÍN
   - Telephone: 0903 987 712 - 028 3875 0558
   - Number of employees: 16
   - Turnover (USD): 615,373
   - Description: Manufacturer and trader of: moving sprayer, power tiller, rice reaper, Moving Sprayer, Mini Combine Harvester, Rice Reaper
4. **CQS INDUSTRY JOINT STOCK COMPANY**
   - Phone: 02513981689
   - Fax: 02513982894
   - Contact name: Tai Sheng-Yu (Director-General)
   - Phone: 0913932706
   - Website: cqs-tech.com
   - Number of employees: 800
   - Turnover (USD): 9,752,525

- Description: Manufacturer of metal casting parts and components for automobiles and motorcycles, agricultural and industrial machinery.

5. **DAISIN VIETNAM CO., LTD**
   - Address: Road 17A, Bien Hoa 2 Industrial Park, An Binh Ward, Bien Hoa City, Dong Nai Province, Vietnam
   - Phone: 02743769232:
   - Contact: Porametr Leegomonchai
   - Number of employees: 9
   - Turnover (USD): 1,970,733
   - Description: Daisin Vietnam Co., Ltd, foreign name is Daisin Vietnam Co., Ltd, original name is Công ty TNHH Daisin Viet Nam, operations over 23 years in Producing spare parts for motor vehicles and vehicle engines. Director: Mr/Ms. MANOP LEEGOMONCHAI and managed by Mr/Ms Mr/Ms. SivaDol b BoonDanYa.
6. **Dong Luc Mechanics Corporation (DLM Corp)**
   - Address: Lot C, Street No.4
   - Dong An Industrial Park, Thuan An Town, Binh Duong, VN
   - Phone: 02743 769 360
   - Website: https://www.donglucmechanics.com/en
   - Number of employees: 100
   - Turnover (USD): 3,853,617
   - Description: Dong Luc is a manufacturer of high-quality machines and industrial lines for the processing of dry materials.
7. **Gia Linh Service and Production Company Limited**
   - Head office: No. 14 lane 22 Nhat Tao street - Dong Ngac Ward - Bac Tu Liem - Hanoi
   - Phone: (024)23 210 777 - (024)23 480 177 / Fax: (04)33 528 903
   - Mobile: 0913222545 - 0983170104
   - Email: gialinheq@yahoo.com.vn
   - Website: http://gialinheq.com.vn
   - Number of employees: 7
   - Turnover (USD): 1,135,413
   - Description: Livestock equipment manufacturing companies

8. **HA NOI MACHINERY IMPORT AND EXPORT JOINT STOCK COMPANY**
   - Address: No. 8, Trang Thi Street, Hang Trong Ward, Hoan Kiem District, Hanoi City, Vietnam
   - Phone: 0438289623
   - Fax: 0438289624
   - Contact name: Nguyen Anh Minh (Director-General)
   - Number of employees: 50
   - Turnover (USD): 337,131
   - Description: Wholesale of other machinery, equipment and spare parts
9. **HBA Company Limited**

- Address: Chau Son Industrial Park, Le Chan Street, Le Hong Phong Ward, Phu Ly City, Ha Nam Province, Vietnam
- Phone: 02263889866
- Contact name: Mai Tuan (Director)
- Number of employees: 70
- Turnover (USD): 1,5272,19
- Description: (2710) Manufacturer of electric motors, generators, transformers, power distribution and control equipment

**10. HOANG HUY HOANG COMPANY LIMITED**

- Phone: 0613785285
- Contact name : Hoang Van Huy (Director)
- Number of employees: 500
- Turnover (USD): 6,522,030
- Description: Contractor of public construction

**11. HUU TOAN CORPORATION**

- Address: Lot 7B, North Chu Lai Industrial Park, Tam Hiep Commune, Nui Thanh District, Quang Nam Province, Vietnam
- Phone: 18001757
- Website: https://huutoan.com/
- Number of employees: 600
- Turnover (USD): 26,792,010
- Description: Generators assembler and manufacturer in Vietnam.

**12. Industrial One Company Limited**

- Address: L18-11-13, Floor 18, Vincom Building, Center Dong Khoi, 72 Le Thanh Ton, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam
- Website: https://www.industrialone.net
- Phone: 02862885106
- Contact name: Ngo Kim Tuyen (Director & Chairman)
- Phone: 0901683686
- Number of employees: 22
- Turnover (USD): 72,774
- Description: Hydrogen Energy & Innovative Gas Solutions, WET Processing & Cleanroom Solutions, SMART Lighting Solutions

**13. INTERWYSE EXPORT-IMPORT COMPANY LIMITED**

- Address: 182 Ho Van Hue, Ward 09, Phu Nhuan District, Ho Chi Minh City
- Contact name: Ho Dac Ngoc (Director-General)
- Phone: 02839971023
- Fax: 02839971022
- Number of employees: 15
- Turnover (USD): 16,888,544

**14. KSP Viet Nam Co., Ltd.**

- Address: Lot M-3A-CN, My Phuoc 2 Industrial Park, Chanh Phu Hoa Ward, Ben Cat Town, Binh Duong Province, Vietnam

- Representative of BUNJONG CHAWALITRUANGRITH
- Phone: 0918675239
- Website: https://ksp.com.vn/
- Number of employees: 150
- Turnover (USD): 8,391,662
- Description: Designing and developing livestock equipment as well as projects of animal feed, farms, and food

**15. KUBOTA VIETNAM CO., LTD**

- Address: Lot B-3A2-CN, Industrial Park, My Phuoc, Ben Cat, Binh Duong
- Phone: 0274 3577 501
- Website: http://www.kubota.vn/
- Number of employees: 70
- Turnover (USD): 10,033,416
- Description: Tractors Manufacturer, distributor

**16. KWANG SUNG SPRAYERS VINA CO., LTD**

- Address: Factory in Vietnam: Lot H18, Road No. 3, Le Minh Xuan Industrial Park, Binh Chanh District, HCMC
- Phone: +84-8-3766-3161
- Email: mss.kwangsung@gmail.com
- Business Department
- Mr. Quang: 0376049361 - email: mss.kwangsung@gmail.com
- Mr. Thuan: 0908636726 - email: mss.kwangsung@gmail.com
- Office – accounting: Ms. Trinh: 0387872034 - email: mss.kwangsung@gmail.com
- Website: http://kwangsung.com.vn/
- Number of employees: 30
- Turnover (USD): 831,580
- Description: Manufacturer and trader of sprayers

**17. LIFE INCUBATOR COMPANY LIMITED**

- Phone: 028710 600 67
- Hotline: 0909494708 (Mrs Phuong)
- Email: info@lin.com.vn
- Address:
    - HCMC: 45-47 Pham Duc Son, Ward 16, District 8.
    - HANOI: No. 10 Thinh Liet Street, Thinh Liet Ward, Hoang Mai District.
    - DONG NAI: 699 Street 21/4, National Highway 1A, City. Long Khanh.(Near Long Khanh Bus Station)
    - LONG AN: 57 National Highway 1A, Ward 5, Tan An City.
    - CAN THO: 708 30/4 Street, Hung Loi Ward, Ninh Binh District
- Website: https://www.lin.com.vn/
- Number of employees: 10
- Turnover (USD): N/A
- Description: Egg Incubators Manufacturer

**18. Machinery Spare Parts N01 Joint Stock Company (Maspaco Co. Ltd)**

- Address: 3/2 Street, Group 10, Mo Che Ward, City. Cong River – Thai Nguyen

- Phone: 0208 386 2205
- Fax: 0208 386 2316
- http://futu1.com.vn
- Number of employees: 1,226
- Turnover (USD): 38,931,297
- Description: VEAM's subsidiary

**19. MECHANICAL ENGINEERING FACTORYNO 276 (HYDROMEC)**

- Address: 220 Bis. Dien Bien Phu, Ward 22, Binh Thanh District, City. Ho Chi Minh City.
- Phone: 0283899.4651 - Fax. 0283899.0773
- website: 276.com.vn
- Number of employees: 350
- Turnover (USD): N/A
- Description: Specialized unit in the field of designing, manufacturing and installing hydraulic mechanical equipment for irrigation and hydroelectric projects

**20. Mekong Machinery Joint Stock Company - Mekong Machinery Co.,ltd**

- Address: 117-119 Pasteur, Vo Thi Sau Ward, District 3, Ho Chi Minh City
- Contact name: Nguyen Thanh Su (Chairman)
- Phone: 02838299120
- Website: https://www.thietbimekong.vn
- Number of employees: 65
- Turnover (USD): 4,276,221
- Description: Trading, importing, exporting all kinds of machines, equipment and spare parts for agriculture, forestry, fishery and irrigation; office equipment.

**21. Minh Luan Enterprise Company Limited**

- Address: 370A/15, National Highway 1A, An Phu Tay, Binh Chanh, Ho Chi Minh City.
- Phone: 002837600 040.
- Emails: dntnminhluan@minhluan.com.vn – nguyenlinh@minhluan.com.vn – minhnhut@minhluan.com.vn
- Branch 1: B1/11 Doan Nguyen Tuan, Hung Long Commune, Binh Chanh District, Ho Chi Minh.
- Branch 2: Lot C15, Small industry area, Road No. 6, Le Minh Xuan Industrial Park, Tan Nhut Commune, Binh Chanh District.
- Phone: 00283766 3236 – 00283766 3237
- website: http://minhluan.com.vn
- Number of employees: 1
- Turnover (USD): 2,108,075
- Description: Buying and selling agricultural machinery, equipment and spare parts, repairing and refurbishing vehicles used in agriculture.

**22. MINH PHAT HUY CO., LTD**

- 29 National Highway 1A, Dong Binh, Bui Chu, Bac Son, Trang Bom, Dong Nai
- Phone: 0 0251 6279 223
- Hotline: 0986 510 206
- Zalo/Viber/WhatsApp: +84986510206
- Email: minhphat@thietbichannuoi.com

- https://thietbichannuoi.com/gioi-thieu/
- Number of employees: 40
- Turnover (USD): 2,991,886
- Description: Producing, trading and installing livestock equipment, producing and processing plastic products (Minh Phat Plastic), investment, farms for rent.

**23. <u>My Anh An Production Commercial Services Co., Ltd</u>**

- Address: Lot I6-3, Street 9, Thuan Dao Expanded Industrial Park, Long Dinh Commune, Can Duoc District, Long An Province, Vietnam
- Representative of TRAN THI MY HANH
- Phone 0285428 4587
- Website: http://myanhan.com/
- Number of employees: 9
- Turnover (USD): 2,015,797
- Details: Manufacture of food processing machines, especially for cashew nuts

**24. <u>NAM BINH PHAT IMPORT EXPORT JOINT STOCK COMPANY</u>**

- Address: No. 36, A2 Area, Kenh Giang Commune, Thuy Nguyen Ward, Hai Phong City, Vietnam
- 0225 3574238
- Website: https://www.nambinhphat.com
- Phone: 0936685685
- Fax: 02253574238
- Contact name : Nguyen Van Cai (Managing Director)
- Number of employees: 60
- Turnover (USD): 6,513,703
- Description: Founded in 2012, Nam Binh Phat Import-Export Joint Stock Company specializes in casting high quality metal products for mining, cement, thermal power, machine manufacturing by sand casting technology.

**25. <u>Nam Phuong Viet Technology Joint Stock Company (NPV Jsc.)</u>**

- Address: 20A Phan Chu Trinh Street, Tan Thanh Ward, Tan Phu District, City. Ho Chi Minh (HCMC)
- Phone: 02862558597, 0903803645
- Fax Number: 02862558747
- info@namphuongviet.vn /www.namphuongviet.vn
- Hanoi Branch: No. 26 Lot TT03, Mon City, My Dinh 2 Ward, Nam Tu Liem District, Hanoi
- Phone: (024) 3760 6715
- Factory: 188 National Highway 22, Tan Thoi 3 Hamlet, Tan Commune Hiep, Hoc Mon District, Ho Chi Minh City
- Phone: 0283713 1089
- Number of employees: 73
- Turnover (USD): 4,129,419
- Description: Trading Inverter (Inverter), Electrical panels, Industrial Robots, Low voltage, Distribution Cabinets, Automation - Automation Systems and Equipment, Electrical enclosure

**26. Nhan Phong Thai Company Limited (Npt Co.,Ltd)**

- Address: 161/28/21 Binh Tri Dong Street,
- Ward 3, Binh Tri Dong A Ward, Binh Tan Dist., Ho Chi Minh City
- Phone: 094 982 0279
- Email: info.nptgroup@gmail.com
- Website: http://npt-group.com/
- Number of employees: 30
- Turnover (USD): N/A
- Description: Contractor and manufacturer of: Turn key project for the water industry, valued up to 500 thousand USD. Procurement project - Manufacturing-Construction-Testing in the water industry, valued up to 2 million USD. Providing machines and technology lines for processing agricultural products, valued up to 500 thousand USD, Civil and industrial construction, valued up to 2 million USD.

**27. Sinh Viet Produce Service Trade Company Ltd (Sivico)**

- HCM office: 457/24C CMT8 Street - Ward 13- District 10, HCMC
- Hanoi office: Ward 503 - No. 50 Alley 403 Bach Mai- Hai Ba Trung Ward- Hanoi City
- Phone: HCM 08.6270.6976 - Hanoi 04.6688.0044 | Hotline: 0907.359.229
- Email: info@sivico.vn
- Website: www.sivico.vn
- Number of employees: 14
- Turnover (USD): 2,415,434
- Description: Sinh Viet is currently a distributor of pure chemicals, test kits, equipment, instruments used in testing, diagnostics, food, water, environment, etc., according to international standards such as: ISO, AOAC, AFNOR, APHA, European Pharmacopoeia (EP), United States Pharmacopoeia (USP), CLSI.

**28. Son Phuoc Dinh Joint Stock Company (Son Phuoc Dinh Jsc.)**

- Address: 132, Tam Trinh Street, Yen So Ward , Hoang Mai District, Hanoi City, Vietnam
- Phone: +84-24 39 418 686 I Hotline: 0949 436 686 I Email: sonphuocdinhjsc@gmail.com
- Website: http://sonphuocdinh.com/
- Number of employees: 10
- Turnover (USD): 44,099
- Description: Specializing in importing and trading items: generators, elevators, ventilation fans, air conditioners, etc., and is exporters of natural wood

**29. SOUTHERN TRADING AND SERVICE ASSEMBLING COMPANY LIMITED**

- Address: B5/19K Tran Dai Nghia St., Tan Kien Ward, Binh Chanh Dist., Ho Chi Minh City, Vietnam
- Phone: 02854258082
- Number of employees: 200
- Turnover (USD): 4,103,955
- Description: Farm machinery manufacturer

**30. SOUTHERN VIETNAM ENGINE AND AGRICULTURAL MACHINERY CO.,LTD**

- Address: Quarter 1 - Binh Da Ward - Bien Hoa City - Dong Nai.

- Phone: 061 383 8727
- Website: http://sveam.com.vn
- Number of employees: 700
- Turnover (USD): 29,910,565
- Description: Farm machinery manufacturer

**31. STOLZ-MIRAS (VIETNAM)., LTD.**

- Address: Lot 521, Street no.13, Amata IP, Long Binh Ward, Bien Hoa City, Dong Nai Province. VIETNAM
- Phone: 0(251) 368 0830 . 0(251) 368 0831
- Website: https://www.stolzmiras.com/
- Number of employees: 180
- Turnover (USD): 5942557
- Description: French-owned Mechanical manufacturer

**32. Van Phu Thanh Production Trading And Service Company Limited**

- Address: No. 25, Street 4, Cu Xa Binh Thoi, Ward 8, District 11, Ho Chi Minh City.
- HOTLINE: 0903 911 529
- Phone: 02839651375
- Fax: 02839651376
- Email: dat@vanphuthanhvn.com
- https://vanphuthanhvn.com/lien-he
- Number of employees: 15
- Turnover (USD): 1,778,652
- Description: Metal cutting tools.
- Distributor of the precision metal cutting brand - ARNO Werkzeuge

**33. Van Su Loi Manufacturing - Trading Company Limited**

- Head Office: 119-121 Song Hanh, Ward 10, District 6, HCMC
- Phone: 0283755 2222 – 0283755 3333
- Fax:0283755 4999
- HOTLINE Sales: 090 798 1111, HOTLINE Service: 1900 55555 0
- Website: www.vansuloi.com
- Email: vansuloi@hotmail.com
- SHOWROOM: 3/23 National Highway 1A, Binh Hung Hoa B Ward, Binh Tan District, Ho Chi Minh City
    - Phone: 0285425 6798
- Ha Noi Office: Lot 2, CCN Lai Xa, Kim Chung Commune, Hoai Duc District, Hanoi
    - Phone: (024) 3292 9999 – (024) 3839 8211
    - Fax: (024) 3839 8212
    - HOTLINE Sales: 0907 884 888
- Bac Ninh Office: 12 Be Van Dan, Ninh Xa Ward, Bac Ninh City, Bac Ninh
    - Phone: (022) 2247 7776 - (022) 2247 7778
- WAREHOUSE: Binh Tien 2 Hamlet, Duc Hoa Ha Commune, Duc Hoa District, Long An Province
    - Phone: (0272) 249 6949
- Number of employees: 150

- Turnover (USD): 11207520
- Description: Was established in May 2004, the agency of China and Taiwan in supplying all kinds of machines and equipment: Non-metal Laser Engraving Machine System, Laser Metal Cutting Machine, High Performance Metal Laser Engraving Machine, Fiber laser cutting machine ,Cutting Machine used in Footwear and Clothing Industry, Carton Cutting Machine, Carving Machine used in advertising industry, Mould Carving Machine and CNC Mould Engraving, Common Milling Machine, all kinds of Drilling Machine, Drilling and Milling Machine, Center Processing Machine, CNC Milling Machine, Common Lathes and CNC Lathes, Surface Grinding Machine and Round Grinding Machine, Digital CNC Wire Cutting Machine, Spark Erosion Machine, High-speed Shot Hole Machine, Plasma CNC Machine, Metal Processing Equipment, Common and CNC Bending Machine, Common and CNC Shearing Machine, Plastic Injection Moulding Machine, Moulding and Bottle Blowing Machine, and other supporting equipment's.

**34. Viet Y Technology Company Limited (Vietytech Co., Ltd)**

- Address: Lot 38, Road 2, Tan Tao Industrial Park, Tan Tao A Ward, Binh Tan District, Ho Chi Minh
- Contact person: PAOLO FORNARI
- Phone:38328230
- Number of employees: 33
- Turnover (USD): 1,652,970
- Description: Manufacturer of agricultural and forestry machinery

**35. VIETNAM PESTICIDE JOINT STOCK COMPANY**

- Address: 102 Nguyen Dinh Chieu - Da Kao Ward - District 1 - Ho Chi Minh City
- Phone: 02838258853 / 02838295730
- Email: vipesco@hcm.vnn.vn
- Website: https://vipesco.com.vn/
- Number of employees: 400
- Turnover (USD): N/A
- Description: Manufacturer and trade pesticide, sanitizer and fertilizer

**36. VINA NHATRANG ENGINEERING JOINT STOCK COMPANY**

- Address: A7 - A10, Dien Phu Industrial Compound, Dien Khanh District, Khanh Hoa Province, Vietnam
- Phone: 02583771194
- Website: info@vinanhatrang.vn / sales@vinanhatrang.vn
- COMMERCIAL BRANCH IN HO CHI MINH CITY: 70 Street No. 75, Tan Phong Ward, District 7, Ho Chi Minh City
- Phone: 0938 265 138
- Email: sales1@vinanhatrang.vn
- Website: https://vinanhatrang.vn/
- Number of employees: 220

- Turnover (USD): N/A
- Description: Capable of production, supply and installation of synchronous coffee and agricultural product processing projects and factories

**37. VINH THAI PRIVATE ENTERPRISE**

- Address: 553 Hoa Hao Street, Ward 7, District 11, Ho Chi Minh City, Vietnam
- Phone: 0838572909
- Fax: 0839559375
- Contact name: Kien Vinh Phan (Proprietor)
- Number of employees: 30
- Turnover (USD): 5,297,895
- Description: Trader of Farm Machinery, Agricultural Machinery and Equipment, Simili Fabric, Plastic Leather, Faux Leather

**38. VPM EQUIPMENT & TECHNOLOGY JOINT STOCK COMPANY**

- Address: No. 5, Block B, Lot TT3, New South-Western Linh Dam Lake Area, Hoang Liet Ward, Hoang Mai Dist., Hanoi, Vietnam
- Phone: 024 35402132
- Email: thietbivpm@gmail.com
- Website: www.thietbivpm.com
- Number of employees: 30
- Turnover (USD): 1,028,501
- Description: Manufacture and trade: Food Processing Equipment and Machinery. Importers and Distributors of: Industrial Printer, Date Printer, Production Line

## Appendix 4 – EVFTA Customs duty elimination

Based on Appendix 2A2 of EVFTA Agreement, the tariff lines are divided into 6 categories. The customs duties shall be removed based on the period indicated according to each category.

| Category | Tariff Elimination Schedule |
|---|---|
| A | Tariff will be eliminated on the date **when the agreement enters into force** |
| B3 | Tariff will be eliminated **in 4 equal annual stages** beginning on the date of entry into force of this Agreement |
| B5 | Tariff will be eliminated **in 6 equal annual stages** beginning on the date of entry into force of this Agreement |
| B7 | Tariff will be eliminated **in 8 equal annual stages** beginning on the date of entry into force of this Agreement |
| B9 | Tariff will be eliminated **in 10 equal annual stages** beginning on the date of entry into force of this Agreement |
| B10 | Tariff will be eliminated **in 11 equal annual stages** beginning on the date of entry into force of this Agreement |

Below is the tariff elimination schedule of Vietnam towards the EU HS Tariff Line, going from year 2020 (the period that EVFTA came into force) until 2027.

| HS Code<br>EU<br>Vietnam | Description | Tax base | Category | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8408.20.310<br>8408.20.10<br>For vehicles of subheading 8701.10 | Diesel engines for wheeled agricultural or forestry tractors, of a power not exceeding 50 kW (67,98 CV) | 25 | B10 | 22.7 | 20.4 | 18.1 | 15.9 | 13.6 | 11.3 | 9 | 6.8 |
| 8408.20.310<br>8408.20.93<br>For vehicles of subheading 8701.10 | Diesel engines for wheeled agricultural or forestry tractors, of a power not exceeding 50 kW (67,98 CV) | 25 | B7 | 21.8 | 18.7 | 15.6 | 12.5 | 9.3 | 6.2 | 3.1 | 0 |
| 8408.20.310<br>8408.90.10<br>Power not exceeding 18,65 kW | Diesel engines for wheeled agricultural or forestry tractors, of a power not exceeding 50 kW (67,98 CV) | 22 | B10 | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 6 |
| 8408.20.350 | Diesel engines for wheeled agricultural or forestry tractors, of a power exceeding 50 kW but not exceeding 100 kW (67,98-135,96 CV) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 8408.20.370 | Diesel engines for wheeled agricultural or forestry tractors, of a power exceeding 100 kW (135,96 CV) | 3 | B7 | 2.6 | 2.2 | 1.8 | 1.5 | 1.1 | 0.7 | 0.3 | 0 |
| 8419.31.000 | Dryers for agricultural products | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8424.41.000 | Portable sprayers | 15 | B5 | 12.5 | 10 | 7.5 | 5 | 2.5 | 0 | 0 | 0 |
| 8424.49.100 | Sprayers and powder distributors designed to be mounted on or drawn by tractors | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8424.49.900 | Self-propelled sprayers and powder distributors | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8424.82.100 | Watering appliances | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8424.82.900 | Other mechanical appliances for the projection or dispersion of liquids or dust for agriculture or horticulture | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8427.20.110 | Engine powered self-propelled rough terrain fork-lift trucks | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8428.90.710 | Loaders for use in agriculture: designed for attachment to agricultural tractors | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8428.90.790 | Loaders for use in agriculture: drawn by tractor or self-propelled | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8432.10.000 | Ploughs | 20 | B5 | 16.6 | 13.3 | 10 | 6.6 | 3.3 | 0 | 0 | 0 |
| 8432.21.000 | Disc harrows | 20 | B5 | 16.6 | 13.3 | 10 | 6.6 | 3.3 | 0 | 0 | 0 |
| 8432.29.100 | Scarifiers and cultivators | 20 | B5 | 16.6 | 13.3 | 10 | 6.6 | 3.3 | 0 | 0 | 0 |
| 8432.29.300 | Harrows (other than disc harrows) | 20 | B5 | 16.6 | 13.3 | 10 | 6.6 | 3.3 | 0 | 0 | 0 |
| 8432.29.500 | Motor hoes | 20 | B5 | 16.6 | 13.3 | 10 | 6.6 | 3.3 | 0 | 0 | 0 |
| 8432.29.900 | Weeders and hoes | 20 | B5 | 16.6 | 13.3 | 10 | 6.6 | 3.3 | 0 | 0 | 0 |
| 8432.31.00 | No-till direct seeders, planters and transplanters | 5 | B5 | 4.1 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8432.39.11 | Central driven precision spacing seeders | 5 | B5 | 4.1 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8432.39.19 | Other Seeders | 5 | B5 | 4.1 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8432.39.90 | Planters and transplanters | 5 | B5 | 4.1 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8432.41.00 | Manure spreaders | 5 | B5 | 4.1 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8432.42.00 | Fertilizer distributors | 5 | B5 | 4.1 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8432.80.000 | Other machinery for soil preparation or cultivation including lawn or sports-ground rollers | 5 | B5 | 4.1 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8432.90.000 | Parts and fittings of machines classified in heading 84.32 | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8433.20.100 | Motor mowers | 5 | B5 | 4.9 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8433.20.500 | Mowers to be mounted on or drawn by tractors | 5 | B5 | 4.9 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8433.20.900 | Mowers, other than to be mounted on or drawn by tractors | | | | | | | | | | |
| 8433.30.000 | Other haymaking machinery | 5 | B5 | 4.9 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8433.40.000 | Straw or fodder balers, including pick-up balers | 5 | B5 | 4.9 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8433.51.000 | Combine harvesters | 5 | B5 | 4.9 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8433.52.000 | Threshing machinery, other than combine harvesters | 5 | B5 | 4.9 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8433.53.100 | Potato diggers and potato harvesters | 5 | B5 | 4.9 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8433.53.300 | Beet-topping machines and beet harvesters | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 8433.53.900 | Root or tuber (other than potato and beet) harvesting machines | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 8433.59.110 | Self-propelled forage harvesters | 5 | B5 | 4.9 | 3.3 | 2.5 | 1.6 | 0.8 | 0 | 0 | 0 |
| 8433.59.190 | Forage harvesters, other than self-propelled | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 8433.59.850 | Grape harvesters and other machinery for harvesting | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 8433.90.000 | Parts and fittings of machines classified in heading 84.33 | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8436.10.000 | Machines and equipment for preparing animal feeding stuffs | 20 | B5 | 16.6 | 13.3 | 10 | 6.6 | 3.3 | 0 | 0 | 0 |
| 8436.80.100 | Forestry machinery and equipment | 3 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8701.10.000 | Pedestrian-controlled tractors | 30 | B10 | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 6 |
| 8701.30.000 | Track-laying tractors (including dozers) | 0 | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8701.91.10 | Farm and forestry tractors, wheeled, of an engine power not exceeding 18 kW (24,48 HP) | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |
| 8701.91.90 | Other tractors, wheeled, of an engine power not exceeding 18 kW (24,48 HP), not classified in heading 8701.91.10 | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |
| 8701.92.10 | Farm and forestry tractors, wheeled, of an engine power exceeding 18 kW but not exceeding 37 kW (24,48-50,31 HP) | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |
| 8701.92.90 | Other tractors, wheeled, of an engine power exceeding 18 kW but not exceeding 37 kW (24,48-50,31 HP), not classified in heading 8701.92.10 | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |
| 8701.93.10 | Farm and forestry tractors, wheeled, of an engine power exceeding 37 kW but not exceeding 75 kW (50,31- 102,00 HP) | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |
| 8701.93.90 | Other tractors, wheeled, of an engine power exceeding 37 kW but not exceeding 75 kW (50,31-102,00 HP), not classified in heading 8701.93.10 | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |
| 8701.94.10 | Farm and forestry tractors, wheeled, of an engine power exceeding 75 kW but not | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | exceeding 130 kW (102,00-176,75 HP) | | | | | | | | | | |
| 8701.94.90 | Other tractors, wheeled, of an engine power exceeding 75 kW but not exceeding 130 kW (102,00-176,75 HP), not classified in heading 8701.94.10 | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |
| 8701.95.10 | Farm and forestry tractors, wheeled, of an engine power Exceeding 130 kW (over 176,75 HP) | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |
| 8701.95.90 | Other tractors, wheeled, of an engine power Exceeding 130 kW (over 176,75 HP), not classified in heading 8701.95.10 | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |
| 8716.20.000 | Self-loading or self-unloading trailers and semi-trailers for agricultural use | 5 | B10 | 4.5 | 4 | 3.6 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 |

## Appendix 5 – Main interviews scripts

### Interview with Mr. Gabor Fluit – Chairman of the Eurocham and CEO Asia at De Heus

**Can you tell us a little bit about De Heus in VN?**

*We started our Asian expansion in Vietnam in 2008, gradually extending our coverage to Asia as a whole. Most companies chose Singapore, Bangkok, HK as a regional base, but we decided to put it in Vietnam because of the potential we saw in this country and the cost-competitiveness. Today, Vietnam is our main market in the area in terms of revenue.*

**Can you tell how the livestock market has changed in VN over the last decade? What's the current state? Where is it going and what could be future opportunities for European companies?**

*The opportunities very much depend on the type of companies. In general, in the agriculture and livestock industries in Vietnam, some segments are very well consolidated, while others are still under development, leaving room for new players.*

*Overall, there are still quite a number of smallholders in Vietnam, but their numbers have widely diminished those past two decades. In livestock, many investments have been made in large-scale automated farms (ventilation, management software, feeding systems, etc.) – those hardly existed 10-15 years ago. Those investments mainly came from large integrators (the likes of CP, Emivest, and other big Asian companies) who built their own farms in the country or made long-term renting of existing farms to invest in those.*

*In this ecosystem, most companies, such as De Heus, have developed what could be called "overall integration models" where they not only sell food or genetic solutions, but also help the farmer with the offtake of their end products. Such as it is the case in North Western Europe, the farmer remains more of an independent entrepreneur, which has pushed the less efficient, less competitive ones out of the market.*

*In parallel, over the last few years, environmental rules have become stricter, meaning that farms closer to the suburbs or the cities, even sometimes inside the cities, have had to move to more remote areas, oftentimes scaling up in the process.*

*All of those factors, still ongoing as a continuous process, will in the coming years enhance the need for more efficient agricultural equipment, to gain in competitivity and thrive in an increasingly integrated value chain.*

**We see that indeed smallholders, and household farms, in spite of the ongoing shift towards bigger and more integrated ones, still constitute the overwhelming majority of the livestock population in Vietnam. As an animal feed provider, do you sell mainly to large-scale entities or do you also manage to reach those small businesses?**

*No, we sell to all. It's a different concept and you also need a different technical and sale approach depending on whom you are selling to. But it's definitely worth it to try to reach*

*all the players in the ecosystem because even though the small farms are declining in number/percentage of the total, it's very gradual and 10 years from now they will still represent a significant customer base.*

**Do you think the need for sustainability, to face climate change and its consequences (first and foremost the increase in animal diseases) will urge the farmers to adopt and implement new equipment and solutions? Do you think also the Government is going to support this shift, with incentives for example?**

*The Government has set some very clear goals: at Cop 26, Vietnam was one of the few developing countries to commit to carbon 0 by 2050. That means that, in a country where agriculture still plays a huge role in the overall economy, this sector needs to commit heavily if Vietnam is to achieve this objective. With Eurocham, but also with De Heus alongside other foreign agricultural companies, we are working closely with the government on the concrete steps we could and should take to reduce the emissions.*

*In the past few years, some solutions have already been implemented, mostly focusing on waste management, clean energy, and water management/treatment. Some encouraging steps, but there is still a lot to do: Europe and European companies, still very far ahead in those fields, should use this opportunity to provide their solutions here in Vietnam.*

*From a farmer's perspective, let's face it: even if the Vietnamese people are relatively innovative and open to new products and solutions, the main driver to make those kinds of investments is and will remain, at least for a while, costs. Both the private sector and the Government has to make sure that the financial conditions are advantageous enough for them to implement those solutions and develop more sustainable farms.*

**De Heus has been here for 15 years now, and Vietnam is your largest market in Asia. What advice would you give to a new player wanting to approach the VN market? For example, for an animal feed company, a machinery/equipment company, or a startup with a high-tech/smart farming solution?**

*For equipment and/or smart farming solutions, there are three main options:*

1. *Try to find a very good distributor who matches your way of doing business, understands your product, and knows the market very well. That will help you approach VN quickly and swiftly generate revenue, while the disadvantage of course is that you have to lower your margin and be very careful about how you negotiate the partnership. I have an example in mind of a large European company working in the farming equipment industry, which entered the Vietnamese market via a distributor. In no time the company built a large business footprint here and the country became one of the most important in Asia, so much so that they thus took the decision to set up their own legal entity, their own local team, cut the middle man, and continue distributing by themselves. That was a huge mistake because they didn't think through their exit strategy with their distributor and couldn't manage to properly connect directly with the end*

*customers. The moral of the story is that you need to be careful when negotiating the terms of the contract, especially the exclusivity and business secrecy, and do not hesitate to ask a local legal professional to help you draft it in accordance with the Vietnamese way of doing business.*

2. *If one is convinced of the potential of one's products or services in Vietnam, one can also approach the market directly from the beginning, starting with 1 or 2 staff with a Representative Office. It can take longer and can be a bit tedious, with more upfront investments, but if successful, this method will yield better results in the long term. The key point is to hire the right people at the beginning, but as the ecosystem is now maturing, there exists a large pool of professionals that have the skills, training, experience, and network to help you kickstart your operations in the most efficient way.*

3. *The last path would be to approach companies that are already working with farms on different solutions and equipment. Often, they have "demo farms" that you could use to showcase your solutions, have a commercial proof of concept/performance, and even use that as a springboard to reach their clients and partners.*

*When it comes to animal feed, the market is already well-consolidated. If you have a compound feed type of product that you would like to produce locally, the best approach in my opinion would be through acquisition because it will be very complicated to build a greenfield production plant. And there are many assets available, and many different types depending on the scale of the project, for a European company to enter this market through acquisition. Overall, the livestock market has reached a plateau in terms of volume, and the CAGR will remain relatively low in the years to come, growing more slowly, because the protein consumption per capita in Vietnam has now closed the gap relative to other countries in the area.*

*On the other hand, if you are a feed additives company, you may try the usual path described earlier (through a distributor or with a local technical sales team importing your product).*

**You speak of a plateau and of a slower rate of growth in the livestock market, but how do you explain that in the poultry industry, for example, Vietnam is still a net importer? Doesn't it mean that there is still room for a larger population and growth in this specific segment?**

*It's funny and interesting: one of the main reasons Vietnam is still a net importer of poultry products, in spite of its growing domestic production, is that the country remains a consumer of parts that are considered byproducts by the rest of the world (feet, internal organs, etc.). Vietnam is for example a huge importer of "menopaused" old laying hens because their stiff hard meat is locally appreciated while it is being frowned upon in other countries. There are even smuggling networks from Thailand and China selling this kind of meat in Vietnam for 3 USD/kg; in no other country in the world this product can have such a high price. Following the same pattern, for the frozen imports to Vietnam, it's usually*

*parts that are considered cheap abroad and sold at a higher price to Vietnam where they are more highly considered. So even in the future, when domestic production continues growing, there will still be imports for this very reason, unless consumer behavior starts to change.*

*On the other hand, the opportunity here in Vietnam (and that's why CP built a large export-worthy poultry complex in Binh Phuoc province two years ago) is that if you look at the production cost of 1 kg of breast meat, the most expensive part in most countries around the World, the country has become quite competitive lately because of all those foreign and public investments. Also, because ingredients for animal feed can be imported freely, with little to no taxes. If you compare this price with China or Thailand, Vietnam is today competitively interesting. However, contrary to these countries, Vietnam is relatively new in this exporting side of the industry, the value chains are still young, and the country has not yet been identified as a strong trade player. It will take a few more years, but in my opinion the country will eventually become an exporting powerhouse in the poultry industry when it comes to processed products.*

**Now, as Chairman of the European Chamber of Commerce, what is your general opinion on the government policies regarding trade and investments? What has changed in the last 15 years, and where is it going?**

*In general, over the last ten years, let's notice Vietnam entered a wide range of FTAs, the EU-Vietnam FTA in particular. Today, with almost all the most important countries/markets/supra-national organizations, Vietnam has an FTA signed or ongoing negotiations. It shows that, contrary to Indonesia for example which is much more protectionist, Vietnam has fully accepted the open economy paradigm, its downsides and its upsides, with quite a free-market way of thinking about its embedment in the global economy.*

*That is still the path the Vietnamese government is following today. They have set a very ambitious goal for the country to become a high-income country by 2050, and they are structuring their approach like 1950/1960's Singapore: keeping the political system stable first, and then growing the economy little by little, step by step, with ten-year economic development programs. This inner equilibrium goes alongside an external balance, managing trade and interests with a variety of competing partners, whether the US and Europe, Korea and Japan, China and Russia. On top of that, the country is also aiming at becoming a leader in ASEAN, and is paying a very special attention to what its neighbors are doing in terms of trade policies, economic development, regulatory environment, ease of doing business, etc.*

*Because of all these reasons, the country is very much looking at the outside world and very open to feedback to improve the business environment. To achieve the high-income country goal, the Government knows that they will both need to strengthen their domestic companies and also welcome foreign expertise to increase their competitiveness on the global market. And if you look at the 63 provinces in the country, one of the key yearly KPIs they have is how many FDIs they attract.*

*At the moment, I am confident that this momentum will continue, even strengthen, that the country will keep welcoming foreign investments and expertise, and that the ease of doing business will improve further.*

**What is the current focus of the Eurocham? Particularly regarding the agricultural environment.**

*Our main focus is that European countries and businesses really can bring a lot of value to support Vietnam in the path of carbon net zero by 2050. So we are currently trying to boost European presence in everything related to green investments and green economy, for all industries but in particular for agriculture. That was for example the main purpose of the Green Economy Forum & Exhibition we organized in HCMC in November 2022, which will take place in Hanoi in 2023.*

*In combination with this green agenda, our overarching aim is also of course to continue the work on the ease of doing business, on how to keep Vietnam on this path to good growth.*

***Last question: how are European companies perceived in Vietnam? And how do we compete with the US, Japan, or South Korea which has been heavily investing in Vietnam the past 10 years?***

*The big advantage of Europe is that it's perceived as less sensitive by the Chinese, compared to the US. Therefore, there are fewer geopolitical considerations when it comes to doing business with us.*

*Overall, we are seen as being high-tech, and innovative, with in particular good social policies for the workers. Many European companies in Vietnam were the first, some years ago, to voluntarily implement health insurance, health checks, stricter safety and environmental measures, etc.*

*What can be a problem is the tendency we have sometimes to point fingers and give lessons.*

*Other than that, we are perceived very positively.*

## Interview with Mr. Jean-Luc Voisin - Chairman and Founder of Les Vergers du Mekong

**You've been working with small farmers in Vietnam for a long time. Can you provide some historical background on agriculture?**

*Prior to 1975, agriculture in Vietnam was primarily organized under cooperative systems, but during that time, there was a shortage of food. In 1990, the "doi moi" policy was implemented, which aimed to return the land to individual farmers. Since then, farmers in regions like the Mekong and Red River have been cultivating their own lands, resulting in*

*two to three rice harvests per year. The average landholding for farmers is around 5 to 6 hectares.*

**How has the Vietnamese government approached the question of farming and transformation/modernization?**

*Vietnam is faced with the decision of whether to adopt a productivist approach with large-scale farms or focus on sustainable agriculture. The Mekong region, for instance, is home to 10 to 12 million people who rely on agriculture, with around 2 to 3 million farmers. Recognizing the risk of rural-to-urban migration and the strain it would place on cities, the government, along with the Ministry of Agriculture, aims to maintain agricultural production and encourage sustainable practices. This involves shifting towards higher value-added products. An example of this transition is seen in the coffee industry, which was almost forgotten but has now become the second-largest coffee producer globally through modernization and mechanization.*

**Could you provide an example of how transitioning to higher value-added products has impacted farmers?**

*Let's consider a rice farmer in the Mekong region who owns 2 hectares of land. Traditionally, they would earn around $3,000 per year from rice cultivation. However, by diversifying their crops to include fruits like guava, calamansi (a citrus fruit), and passion fruit, they can earn between $9,000 to $12,000 per year. This shift towards higher value-added crops allows farmers to increase their income and improve their livelihoods.*

**What is the current state of mechanization in Vietnamese agriculture?**

*In terms of mechanization, there is a preference for small tools that assist with daily tasks, such as pedestrian controlled tractors. (small motorized cultivators) and handheld tools for activities like mowing. These tools are often sourced from Chinese manufacturers. However, when it comes to large-scale mechanization, there are concerns about the impact it would have on the agricultural system, particularly considering the average landholding size of 2 to 5 hectares per farmer. The crops that show the most potential for mechanization post-harvest are tea, coffee, rice, and cashews (for export) and there is already competition from countries like Brazil in these areas.*

**Have you yourself implemented new tools or solutions to work more efficiently with your partner farms, and how was it received?**

*Yes, we have implemented a mobile application to follow up with every farm and provide alerts for timely information sharing and collaboration among farmers, resulting in increased efficiency and improved outcomes. The solution has been overall well-received by our partner farms.*

## Interview with Mr. Benoît Tardy – IP Business Advisor at IP SME Helpdesk

**Can you tell us a little bit about your services for European companies in SEA?**

*The South-East Asia IP SME Helpdesk offers assistance to small and medium-sized enterprises (SMEs) from the European Union (EU) and other countries within the Single Market Programme (SMP). The goal is to help SMEs protect and enforce their Intellectual Property (IP) rights in South-East Asian countries. This is achieved by providing free, easily understandable information and services. The helpdesk offers confidential advice on IP matters, along with training, materials, and online resources to support SMEs in navigating intellectual property and related issues.*

**Can you tell us how the IP landscape has changed over the past years? The current state and where it is going?**

*Ever since the Vietnam joined the WTO in 2007, the Government has been actively working to align with the IP regulations of other countries, first and foremost with the ones of the EU. This trend has been gaining momentum ever since the signing of the EVFTA in 2019, and a new law has entered into force the 1st of January 2023, covering wide areas of IP-related topics. It's the most ambitious to date, bringing Vietnam closer to the IP standards of developed country. Unfortunately, at the date of June 2023, only on decree has been implemented, regarding the copyright rights, and we are still waiting for the Government to properly enforced the provisions related to patents, industrial designs, trademarks, etc.*

*Overall, the signs given by the Government are encouraging: Vietnam still relies heavily on FDI for its economic development, and IP protection remain a cornerstone of their attractiveness.*

*The main problem remaining is that there is no "IP courts" in Vietnam – most issues are handled by administrative authorities rather than court, and those often lack expertise in the matter. The Vietnamese authorities are actively working both on enhancing the training of those authorities, while developing the expertise of judges, court officials, and other IP enforcement agencies to offer proper ways of handling those issues.*

**What would be the main tips and watch-out you would give to Western companies willing to approach the Vietnamese market?**

*When facing an IP-related problem, collecting suitable evidence can be challenging, as some evidence may require notarization to be admissible in court, such as evidence of sale, manufacture, import, or offering of infringing items. Identifying infringements may involve monitoring products offered at trade fairs and online platforms, which can be resource-intensive. Accessing evidence from the infringing party can be difficult. To improve the likelihood of success, gathering quotations, signed contracts, business cards, website information, and infringing emails is important. Furthermore, to establish your own rights, it is necessary to provide documents demonstrating the actual damage suffered by your company as a result of the infringement, including a decrease in income and profits. This includes direct comparisons of income levels and the quantity of goods before*

*and after the infringement, loss of money, business opportunities, and income due to the infringement, as well as other reasonable costs incurred to prevent and overcome damages caused by infringement acts, if applicable. Additionally, evidence must be provided to prove legal ownership of the violated object.*

*And of course, due to the challenges in IP rights enforcement in Vietnam, it is crucial to register your rights in the country to have a chance of defending them. Intellectual Property Rights are territorially bound, meaning that registrations in one country's jurisdiction are not automatically enforceable in others. Therefore, registering IP rights in multiple countries may be necessary, especially for businesses seeking international expansion. Additionally, Vietnam operates under a "first-to-file" system, meaning that the individual or entity filing for an IP right first in Vietnam will be granted ownership of that right upon approval of the application.*

*On January 30, 2015, the Ministry of Finance issued Circular No. 13/2015/TT-BTC, which came into effect on March 15, 2015. This circular defines inspection, supervision, temporary suspension of customs procedures for goods subject to Intellectual Property Rights, and the control of goods infringing Intellectual Property Rights. This measure aims to strengthen IP enforcement. Custom controls provide a highly effective and relatively cost-efficient method for SMEs to prevent counterfeit goods from entering or leaving the country.*

*Last but not least, the main advice I would give also is to remain very careful when defining the terms of a contract with a Vietnamese partner/distributor for example. If you don't have the expertise, the best is to get help from a reliable local organization or attorney to make sure every aspect of your IP is covered in the contract, that the sharing of information with your partner is properly defined. This is particularly important for information falling under the "Trade secrets" category. As there is no formal registration process for those, you need to make sure you take measures to protect their confidentiality when you communicate with local partners or customers (marking document as confidential, including confidentiality clauses in business agreements, make sure your partner has a confidentiality clause in its employment agreement, etc.).*

## Interview of Mr. Mark Walton – CEO at Greenlight Co., LTD

**How has droughts impacted agriculture in the region and what changes have farmers made in response?**

*They have accelerated the transformation of agriculture in Vietnam. Farmers have shifted from traditional crops to high-value crops that require less water and are more profitable. For example, in Binh Thuan Province, there has been a significant focus on dragon fruit, a high-value tropical fruit that is less water-intensive. Dragon fruit now accounts for 40% of crop production value in Binh Thuan, surpassing previous crops like corn and rice.*

**What measures are farmers taking to cope with increasing water scarcity and reduce input costs?**

*They are investing in more "high-technology" irrigation systems such as drip and sprinkler irrigation. These systems allow for more efficient water usage and help mitigate the impact of water scarcity. By adopting these technologies, farmers can achieve precise water supply on demand, reducing water waste and optimizing water usage for high-value crops. This shift towards more efficient irrigation methods helps farmers adapt to water scarcity challenges and lower their input costs.*

**How is the government helping in addressing the issue of water scarcity in agriculture?**

*The government is actively promoting crop diversification and the adoption of water-efficient technologies to reduce water usage in agriculture. One viable solution is the implementation of piped irrigation systems. These systems offer more flexibility and precision in water supply, making them suitable for high-value crops. Piped systems provide efficient water delivery, support farmers in adopting water-efficient technologies on their farms, require less maintenance, and are resilient to extreme weather conditions. Additionally, the government is exploring the implementation of water pricing policies, enabled by piped systems, which would allow for cost recovery and private sector involvement in infrastructure operation and maintenance.*

**How do piped irrigation systems contribute to cost-effectiveness and encourage farmers to switch to their usage?**

*Piped irrigation systems facilitate controlled and measured water delivery, making it easier to apply water pricing based on usage volume. By accurately measuring water usage with meters, farmers can be charged according to the water they consume. This creates conditions for private sector involvement in operation and maintenance and helps share the cost of investment with service users. If the cost of using piped systems is comparable to what farmers currently spend on pumping water, which is around $90 per hectare per year in the project areas, it is expected that many farmers will be incentivized to switch to piped systems due to the reliable service and potential cost savings.*

**Are farmers open to foreign equipment? What's the trend in adopting that equipment?**

*Yes, they are, I myself am increasingly selling to farmers. They are pretty much conscious now that it is in their best interest to rationalize and optimize their watering system, and reduce water waste also, primarily for cost-competitivity reasons. Mainly, small stakeholders invest in one or two machines, irrigation platforms/long range sprinklers for example.*

## Interview with Mr. Quan Nguyen - Regional Senior Sales at Yanmar Agricultural Machinery in Viet Nam

**What is the main characteristic of domestic agricultural machinery manufacturing companies in Vietnam (tractors, harvesters, etc.)? How do foreign players compete here?**

*The main problem with domestic manufacturers is inconsistency in product quality. No domestic company can match the quality of Chinese products, let alone the Japanese, Korean, European and American products. It is estimated that those local manufacturers cover around a 3rd of the market.*

*The rest is occupied by foreign players. In terms of quantity, Kubota's large machines account for 75% of the market, Yanmar 20%, and the remaining 5% belongs to other brands such as John Deere, TATA, etc. These brands sell high-capacity machines. Their customers are usually neither rice nor crop farmers. Their disadvantage is that their machines are heavy, sinking in waterlogged rice fields, which makes them less effective in high-capacity operations. Their segment focuses on industrial crops and large-scale farms, such as Vinamilk dairy farms. These customers are a small segment in the agricultural machinery market, purchasing only 10-20 machines per year. Yanmar and Kubota can sell thousands of machines annually. Thaco's collaboration with LS Metron of Korea caused anxiety in the market because they had a great organization, but they suddenly stopped. Nobody knows why, but speculation suggests that their products were not durable enough. The Vietnamese environment is harsh, and only well-suited products, such as the Japanese's one, can adapt well to the Vietnamese agricultural landscape.*

**Does the demand for second-hand machinery, especially handheld machines, still exist? Is there a market for machine rental?**

*Small handheld second-hand machines have not been used in the market for 5-7 years. Tractors with 22 to 50 horsepower are the main market for second-hand machines.*

*Regarding accurate data in the Vietnamese market, it is not easily available, but there are three main sources for importing second-hand machines: Japan, China, and Thailand.*

*Used machines account for about 50% of the total market.*

*There is no machine rental market.*

**What are the factors influencing the demand for machinery purchases?**

*Climate and machine durability heavily influence the choice of brands. Farmers want durable machines that can be sold at a good price after use. Ideal machine lifespans would for example by 5 years for harvesters, 5-7 years for tractors. After 5 years, harvesters retain 30-35% of their initial value, while tractors, being less prone to damage, retain around 50% of their initial value.*

**What should new businesses pay attention to when entering this market?**

*The agricultural machinery market is currently a tough one. To participate, companies must accept the price-to-performance ratio. Good after-sales service and substantial investment are necessary. Distribution networks must be strong to compete with existing brands. Currently, it is challenging to find a dedicated distributor.*

**What is the usual markup for a machine?**

*The profit margin is not high. According to Japanese company policies, the margin ranges from 6-10%. The markup is usually low because farmers have limited financial capacity, making it difficult to sell at high prices. It is also important to take into account the dealer network: on average, an additional 5-6% may be added to cover dealer's margins.*

## Interview with Mr. David Dang, Sales Manager OLMIX

**In terms of mechanization, what is the current state of agriculture in the plantation sector?**

*In the plantation sector, there is a clear distinction between small farms, which constitute the majority, and larger farms. Small farms, with an average size of 0.5 hectares, still heavily rely on manual labor due to limited mechanization. On the other hand, larger farms have embraced mechanization and adopted Western technologies, making them well-equipped for efficient operations.*

**How is mechanization implemented in the plantation sector, particularly on larger farms?**

*Larger farms in the plantation sector often collaborate with specialized service providers who offer machinery and services to support their operations. These service companies play a crucial role in providing mechanized solutions for various tasks such as crop treatments and harvests. For instance, rice harvesting, a labor-intensive process, is frequently undertaken by dedicated service companies that possess the necessary machinery and expertise.*

**Are there any emerging technologies that have gained popularity in recent years for plantation crops?**

*In recent years, the use of drones has become increasingly popular in plantation agriculture. Drones are being employed for the application of phytosanitary products and certain fertilizers, primarily in rice cultivation. This technology offers advantages in terms of cost-effectiveness and precision compared to manual application. Service companies, specializing in agricultural services, are often the primary users of drone technology, ensuring its efficient implementation.*

**Besides drones, are there any other technological advancements in the plantation sector?**

*While drones have gained significant traction in certain crops, their practicality may vary for different plantation crops. However, there have been notable advancements in irrigation systems. These systems are designed to optimize various factors, such as labor*

*management, water quantity, and precise application of agricultural inputs. Additionally, large agroholdings, such as TTC, Vinamilk, TH Milk, Thaco, Wineco, and Vinamit, have made substantial investments in acquiring their own machinery and are generally well-equipped for efficient plantation operations.*

## Interview with Ms. Nadja Kempter – Doctoral Researcher at the University of Zurich

**Could you briefly introduce your area of research?**

*My doctoral research focuses on dairy production in Vietnam, specifically exploring the role of technology and how farmers perceive its adoption. I particularly emphasize the context of small farms in this study.*

**What is the current state of dairy production in Vietnam?**

*The dairy production landscape in Vietnam varies significantly across different regions, such as the North, Middle, and South. It is highly dependent on the specific area. In average, in norther places, the landscape is made of numerous small family-owned farms with no more than 100 animals, while the largest farms in Middle Vietnam can easily reach 8,000/10,000 animal heads.*

**Who are the main buyers for dairy farmers in Vietnam?**

*Usually, dairy farmers have contracts with larger companies to sell their milk too. Those will then sell to processing facilities, etc. until the final customer is reached. Larger players in Middle and South Vietnam often have a closed system where they have their own farms or partner farms, to then process and sell the milk themselves.*

**What types of technology are used in dairy production?**

*Smaller farms typically utilize low-tech solutions such as mechanical milking machines and second-hand cutting machines for feeding grass. On the other hand, larger farms often employ more advanced technology, such as DeLaval's for example who is very well implanted in Vietnam, and have high-grade overall equipment and infrastructures.*

**How do farmers perceive new and higher technologies in dairy production?**

*Generally, there is a positive perception of high-tech production methods among farmers. The narrative of adopting advanced technology towards modern agriculture is well-received. However, the cost of implementing these technologies is generally considered too high, and the return on investment may not be immediately apparent, or even that high due to the additional infrastructural investments often required for high-tech equipment, coupled with the current labor costs in Vietnam. The savings farmers achieve on human resources expenses may not outweigh the overall expenses involved.*

**Are there any public incentives or support for higher technology adoption in the dairy industry?**

*At present, there is a lack of substantial and organized public incentives or support. However, there have been indications that this situation may undergo a potential shift in the near future. At the moment, farmers typically rely on bank credit to finance their investments. In some cases, larger players may also assist their partner farms in acquiring the necessary equipment, with the aim of saving cost along the whole value chain.*

**What is the market structure like for small dairy farms in Vietnam?**

*In North Vietnam, for historical reasons, small dairy farms still hold a strong position in the market, with significant market shares. In the South and Middle Vietnam, the market is much more concentrated: companies like Vinamilk and TH milk have substantial control over the market, having integrated the value chain as a whole.*

**Are there any foreign technologies being used in the dairy industry? And how would a foreign player enter the market?**

*Yes, foreign technologies are present in the dairy industry, such as milking robots from Japan. However, and again, these technologies often require significant investment, which may be a barrier for adoption by many farmers. If a new product is to see success in Vietnam, it is paramount that it offers significant cost and time savings, as it is the case for example for drones used in the agricultural industry. It is also crucial to specifically adapt the market entry strategy to the realities of Vietnam: as I said before, the business structures and types of stakeholders vary widely depending on the regions. Some products may have tremendous potential in the South, and none elsewhere in Vietnam.*

## Interview of Mr NGUYEN Hoang Lam, Export Marketing Manager - Cholimex

**Introduction about the company:**

*Cholimex food strives to become a leading food manufacturer, processor and distributor with a diversity and abundant product chain that fully meets National and International food safety and hygiene standards to suit the growing consumer tastes of the domestic and export market. Exploiting capital resources, technology and experience from all economic sectors at domestically and internationally under many forms of cooperation for synchronous development, building a closed supply chain, from raw materials areas to processing, providing safe and high quality food, ensuring the monitoring and traceability process. Improving production capacity, process export products and develop distribution channels. Associating training of human resources to meet the development needs of Cholimex food in the period 2018-2025.*

**Core business:**

- *Sauce (Vietnamese market, export): 40% market share*
- *Spaghetti sauce: produce in Japan, sell in Vietnam*
- *Frozen food (dim sum, tempura…): produce OEM for exportation*

**Sales:**

- *Leader in Vietnam for their key products*
- *Export to UK, Switzerland, Australia*

**Machines:**

*As Cholimex is positioning on the international standards market, they must have relevant industrial equipment.*

*Having most international certifications (HACCP, ISO, HALAL etc.), they industrial tool has to be at the best level.*

*The machines mostly are imported from EU: Poland, Hungary etc.*

**General overview:**

*Even the general business is slightly going down (before due to Covid, after by inflation and the Ukraine war), the Vietnamese market for food is still very dynamic.*

*High end company such as Cholimex have the investment capacity to purchase international standards machines and that is the type of companies the Italian companies should target.*

*I want to insist that it is very important for Italian company to choose wisely their partner in Vietnam as the need for local presence, human regular contact is key to be successful in Vietnam.*

## Interview of Mr Tuan NGUYEN, PR Manager at Research and Development Center for High-Tech Agriculture of Ho Chi Minh City

**Core business:** Government organization, R&D, Training human resources for Hi-Tech Agriculture and Technology Transfer, Organizing trial production and trading of biological products, plant varieties and agricultural materials.

- Mushrooms, Leafy vegetables, Fruit vegetables, Aquatic products, Ornamental plants, Hydroponic vegetable systems, Seeds, Probiotics
- Seafood

**Current use technology/ product:** Israel (drip irrigation technology), greenhouse...

Criteria that farmers are looking for if we want them to invest in high technology: high productivity/ high yield, low investment

**Current trend of the market:** High demand for organic products. (Ex: organic vegetable…) The consumers are willing to pay even if the price is double, triple in comparison with the normal one.

Portfolio of the one who applied high technology: mostly cooperative.

**Current business model** for the agriculture high technology sector in Vietnam: Nowadays, each province reserves a zone where all the farms/agricultural companies will be concentrated (cooperatives model). The local government will support them to do the marketing and market expansion (via exhibitions and trade shows) and support them to export to foreign countries. It is rare for households to invest in high technology themselves.

- Key contact for all agricultural business in Ho Chi Minh City: Vietnam farmer's union Ho Chi Minh City