

# Ozone Layer Protection in Taiwan Newsletter

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## News highlights

- 1 Taiwan's ODS Consumption in 2023
- 2 Taiwan's Methyl Bromide Usage in QPS applications in 2023
- 3 The Ministry of Environment has completed the issuance of the preliminary allocation for Hydrochlorofluorocarbons for 2025

# 1 Taiwan's ODS Consumption in 2023

To comply with the Montreal Protocol, Taiwan has been compiling and reporting data on the consumption of ozone-depleting substances (ODS) annually since 1992. The consumption data is calculated by adding imports and production, then subtracting exports.

Since 1996, the consumption of Chlorofluorocarbons (CFCs) in Taiwan has remained at zero in accordance with the Montreal Protocol's regulations. Concurrently, the consumption of Hydrochlorofluorocarbons (HCFCs) was frozen at that time, with HCFCs usage decreasing to 84% (536.707 ODP metric tons) of the baseline consumption level (638.156 ODP metric tons). The consumption levels of HCFCs have steadily declined over the years, reaching 382.51 ODP metric tons in 2004, 152.56 ODP metric tons in 2010, 59.35 ODP metric tons in 2015, and 2.173 ODP metric tons in 2020. Each year, these levels have remained below the baseline limits of 65% (414.801 ODP metric tons), 25% (159.539 ODP metric tons), 10% (63.8156 ODP metric tons), and 0.5% (3.191 ODP metric tons) as stipulated by the Montreal Protocol. In 2023, HCFCs consumption was recorded at 2.591 ODP metric tons, reflecting a slight increase of 0.147 ODP metric tons from 2022, yet still below the Montreal Protocol's requirement of maintaining usage under 0.5% of the baseline level. The reductions in HCFCs consumption over the years are illustrated in Figure 1.

To effectively manage HCFCs consumption, Taiwan has implemented a quota system along with a phased ban on various applications. As of January 1, 2020, all types of HCFCs are prohibited from being used as refrigerants in new refrigeration and air conditioning equipment and new construction projects, as well as for applications such as aerosol propellants, foam agents, and solvents (including during production and cleaning processes). Currently, HCFCs are restricted to use for equipment maintenance.

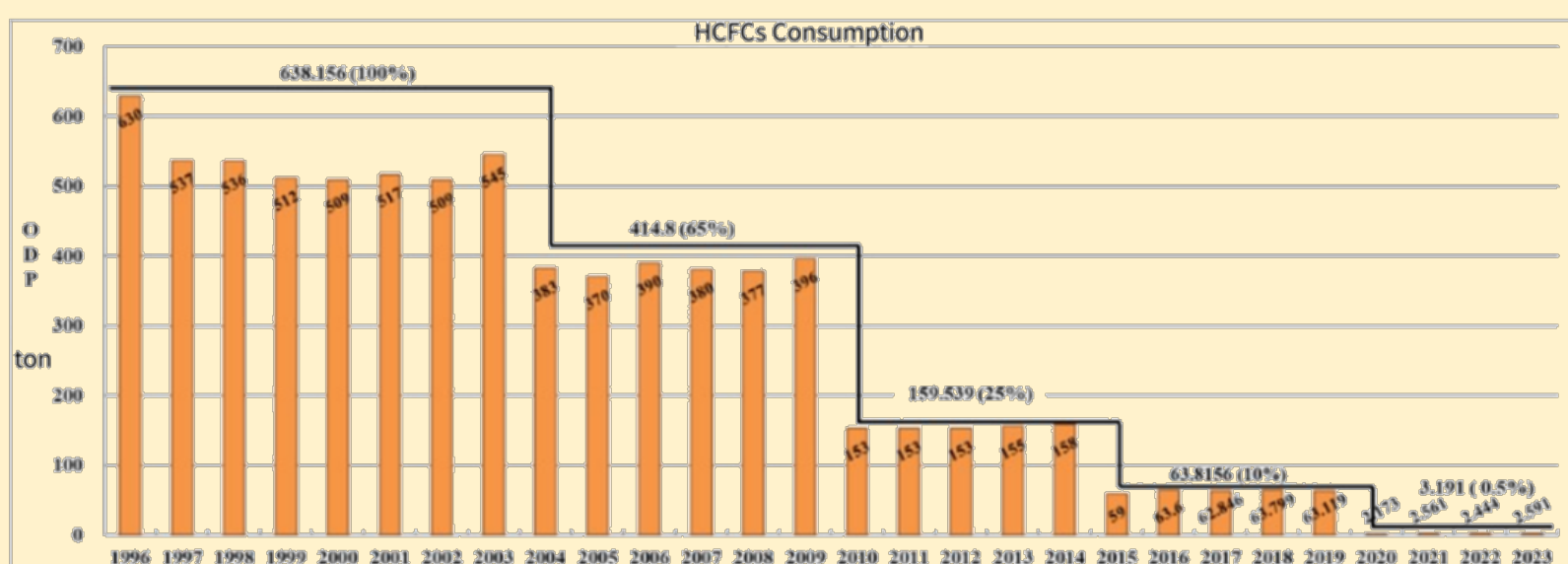


Figure 1. Consumption of HCFCs in Taiwan over the years

## 2 Taiwan's Methyl Bromide Usage in QPS applications in 2023

According to Articles 5 and 10 in the "Methyl Bromide Management Regulations," when applying to the Ministry of Environment for the necessary quantities for the next half-year, domestic users of methyl bromide for quarantine and pre-shipment (QPS) applications in Taiwan are required to report data on the categories of products treated through fumigation and their usage amounts.

Recent user-reported data illustrates the distribution of methyl bromide usage for QPS in Taiwan, as depicted in Figure 2. In 2023, the total amount of methyl bromide utilized for QPS was 51,573 kg, with 44,988 kg (approximately 87%) allocated for quarantine applications. This represents a 9.3% increase (3,839 kg) compared to 2022, primarily driven by heightened usage for imported fresh fruits and vegetables. Conversely, the quantity used for pre-shipment treatment was 6,585 kg (approximately 13%), reflecting a decrease of 9% (653 kg) from the previous year.

To mitigate the risk of introducing and spreading quarantine pests (including diseases), the Bureau of Animal and Plant Health Inspection and Quarantine (BAPHIQ) uses 100% methyl bromide for the quarantine treatment of goods. In 2023, imported fresh fruits and vegetables constituted a significant portion of this usage at 72.70%, followed by imported timber and wood products at 8.14%, and imported cultivation medium at 7.45%. Additionally, exported wood and products accounted for 5.24%, while imported bulbs, flowers, and seeds made up 4.81%, as illustrated in Figure 3.

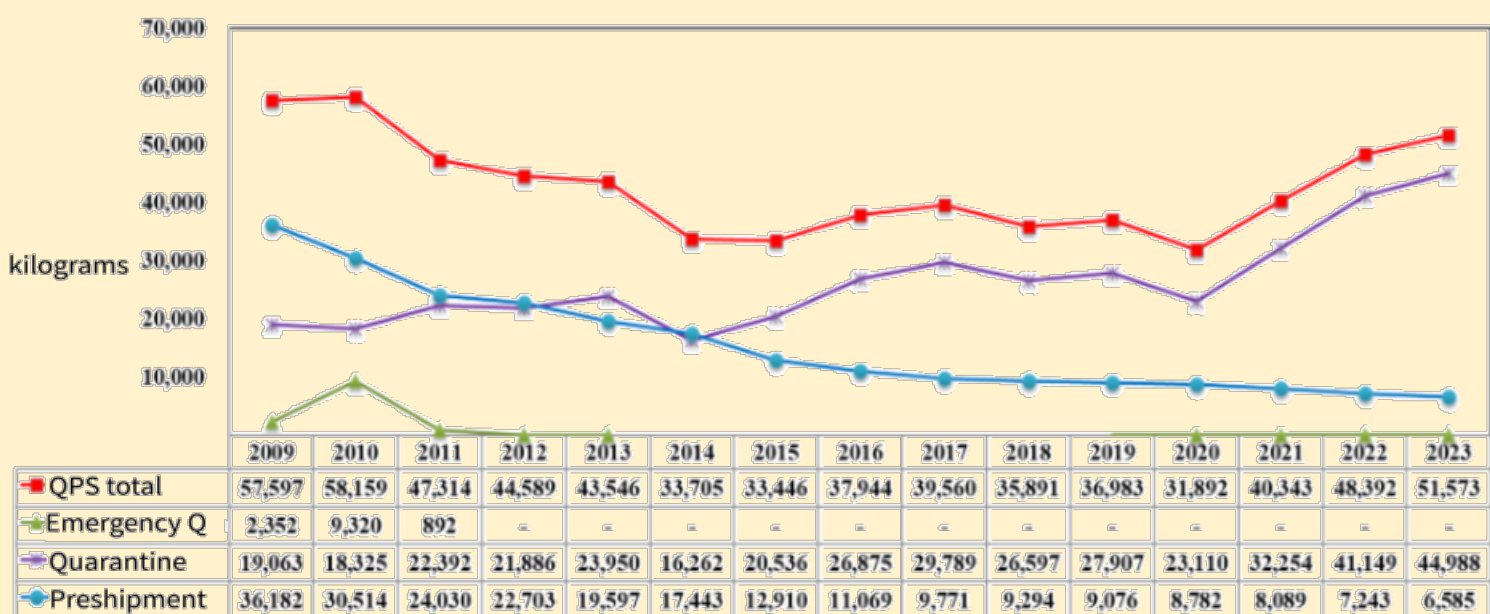


Figure 2. Methyl bromide for QPS applications

For pre-shipment treatment, which is primarily conducted by private companies, 98% methyl bromide is used for fumigation operations. In 2023, the predominant use was for exporting wooden packaging materials (60.17%), followed by personal items exported at 16.65%. The combined usage for other exports and exported wood and products totaled approximately 19.23%, as shown in Figure 4.

The Ministry of the Environment once again calls on domestic methyl bromide users to exercise caution and use methyl bromide responsibly. When alternative technologies, such as heat treatment, phosphine, formalin, or vapor heat, are available for exported goods, companies are encouraged to minimize the use of methyl bromide to help protect the ozone layer and the environment.

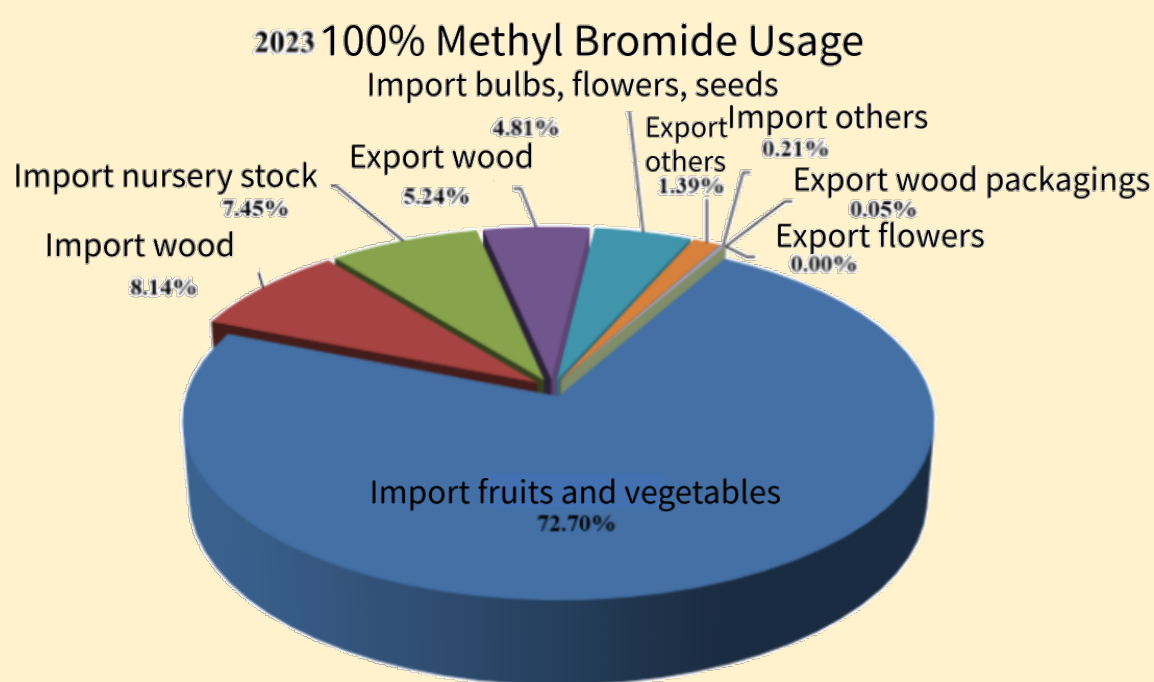


Figure 3. 100% methyl bromide treated on commodities in 2023

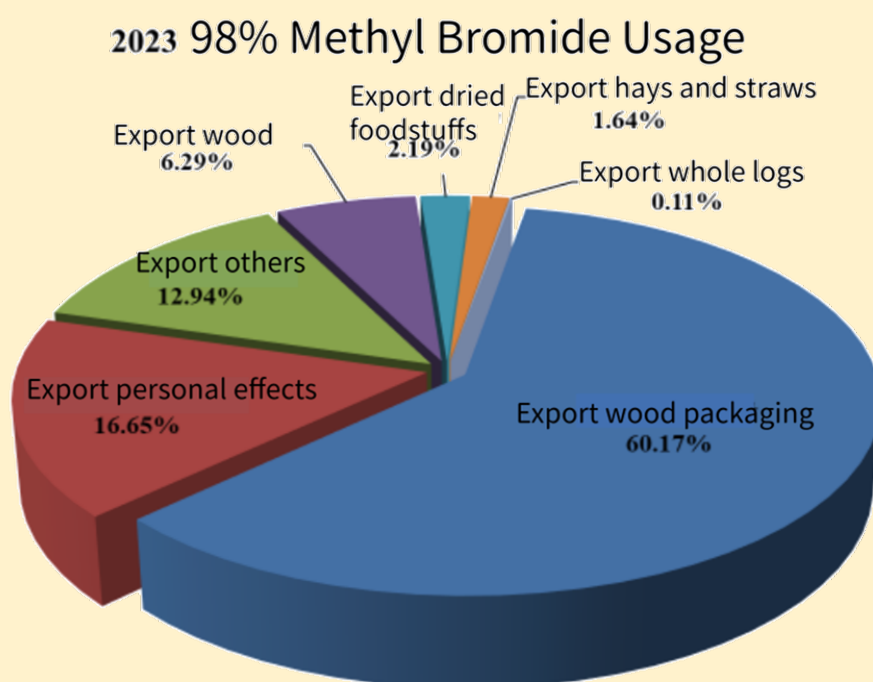


Figure 4. 98% methyl bromide treated on commodities in 2023

### 3 Ministry of Environment Completed the Issuance of the Preliminary Allocation for Hydrochlorofluorocarbons for 2025

According to the Montreal Protocol and Taiwan's "Regulations for Management of HCFCs Consumption," the annual allocation limit for Taiwan from 2020 to 2029 is set at 0.5% of the national consumption baseline (3,191 ODP kilograms), and this allocation is restricted solely to maintenance use for refrigeration and air conditioning equipment. On October 29 2024, a notification was issued regarding the preliminary allocation amount results for the entire year of 2025.

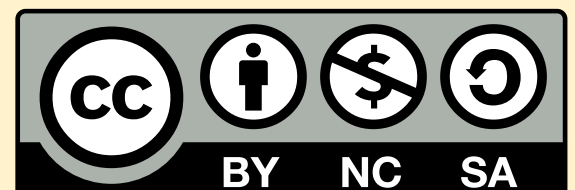
The allocation distribution among users and suppliers will be calculated based on their reported usage, import data, and the principles approved by the review committee. The estimated allocation for 2025 will be determined based on execution performance, which includes the data reported by companies and verified for approval for the first half of 2024, combined with the allocated amount for the second half of 2024. Additionally, the quota for each entity cannot exceed the allocation for the entire year of 2024. The allocated quantity will be evenly divided between the first and second halves of the year, with companies allowed to adjust their proportions according to actual needs.

A total of 12 firms have been approved to obtain the preliminary allocation amount for 2025, including:

- Three users: with a total allocation of 1,179.4128 ODP kilograms (representing 44% of the total allocation).
- Nine suppliers: with a total allocation of 1,495.6943 ODP kilograms (representing 56% of the total allocation).

- The preliminary allocation of HCFCs for the entire year of 2025 has been finalized, and the Ministry of the Environment strongly reiterates the following: Users and suppliers should comply with the " Regulations for Management of HCFCs Consumption " and complete import-related procedures by June 30, 2025.
- The allocated quotas for user companies shall not be resold or sold. Those who violate this regulation will be fined between NT\$100,000 and NT\$2,000,000 in accordance with Article 68 of the "Air Pollution Control Act," and in serious cases, will be ordered to cease operations.
- If users and suppliers are found to have made false declarations, they will be held criminally liable according to the law and will be punished under Article 71, Item 1 of the " Business Entity Accounting Act."

## Ministry of Environment



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