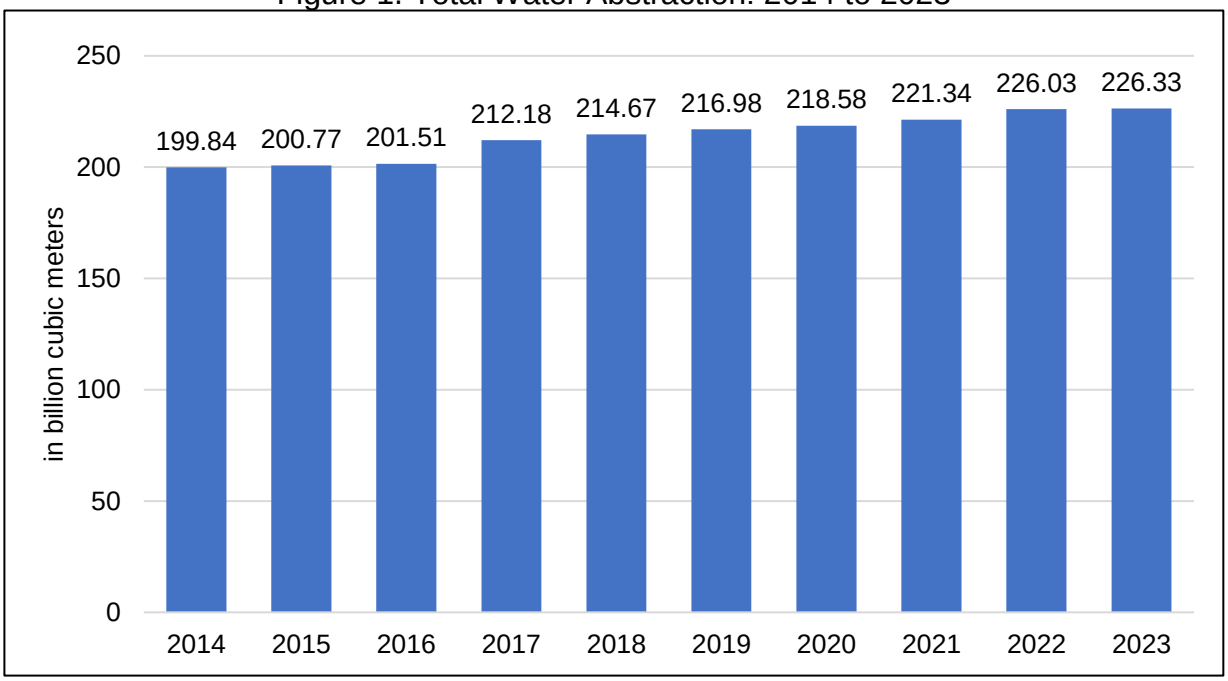
Highlights of the Water Accounts of the Philippines
2014 to 2023

The Water Accounts of the Philippines presents the physical and monetary flow accounts for water resources in the country. The physical flow accounts describe, in volume terms, the flows of water between the environment and the economy. It covers the entire process of water supply and use–from the initial abstraction of water from the environment into the economy, to the flows within the economy done by the different industries and households, and the return flows from the economy back to the environment. The monetary flow accounts present, in monetary units, the origin and destination of water-related products, particularly natural water. Two Sustainable Development Goals (SDG) indicators are derived from the water accounts, namely: 6.4.1 Change in Water Use Efficiency and 6.4.2 Level of Water Stress.

Physical Flow Accounts

The country's total water abstraction, or the amount of water that is removed from its source either permanently or temporarily, reached 226.33 billion cubic meters (bcm) in 2023, a 0.1 percent increase from 226.03 bcm in 2022. In 2023, 97.7 percent of the total abstraction was from lakes, artificial reservoirs, rivers, and streams (surface water), while the remaining 2.3 percent was from groundwater reservoirs. In the same year, 98.1 percent of the abstracted water was for own use, while the remaining 1.9 percent was intended for distribution to other economic units. (Figure 1)

Figure 1. Total Water Abstraction: 2014 to 2023



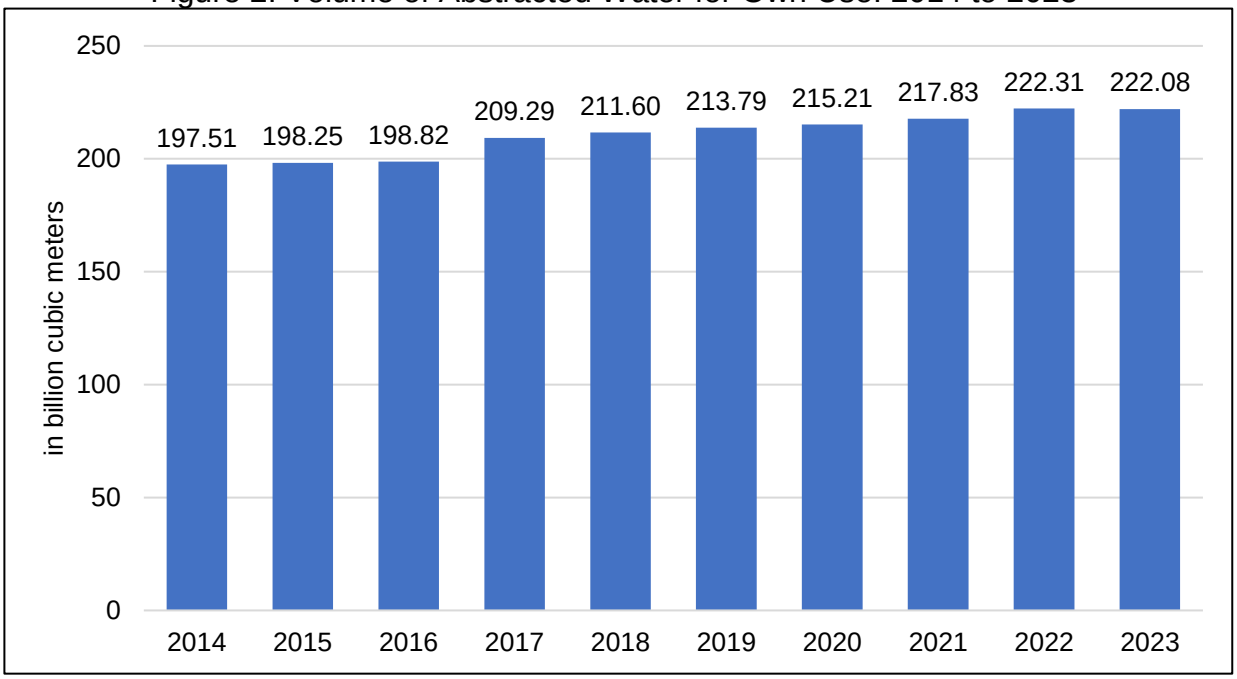
Source: Philippine Statistics Authority

Abstracted water can either be used by the same economic unit that abstracted it, referred to as *abstracted water for own use*, or distributed to other economic units, referred to as *distributed water*.

In 2023, abstracted water for own use amounted to 222.08 bcm, a 0.1 percent decrease from the recorded 222.31 bcm in 2022. The largest amount of self-abstracted water was for Electricity and Steam (ES) at 60.9 percent. This was followed by Agriculture, Forestry, and Fishing (AFF) at 30.6 percent, and by Mining and Quarrying, Manufacturing, and Construction (MQMC) at 6.1 percent. The remaining 2.4 percent of abstracted water for own use was contributed by other industries[1] and households. (Figures 2 and 3)

It should be noted that ES, specifically hydropower generation and cooling, uses water in a non-consumptive manner. That is, water remains in or is immediately returned to the location from which it was extracted.

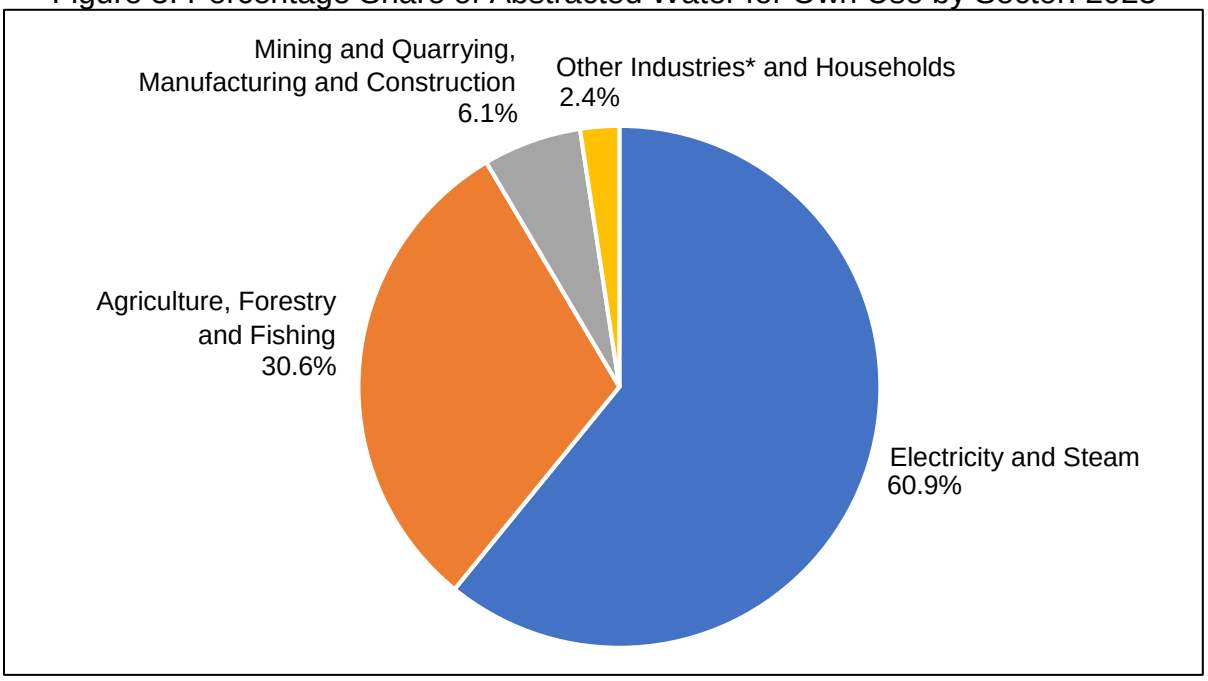
Figure 2. Volume of Abstracted Water for Own Use: 2014 to 2023



Source: Philippine Statistics Authority

[1] Includes all Services, Water Supply, and Waste Management.

Figure 3. Percentage Share of Abstracted Water for Own Use by Sector: 2023



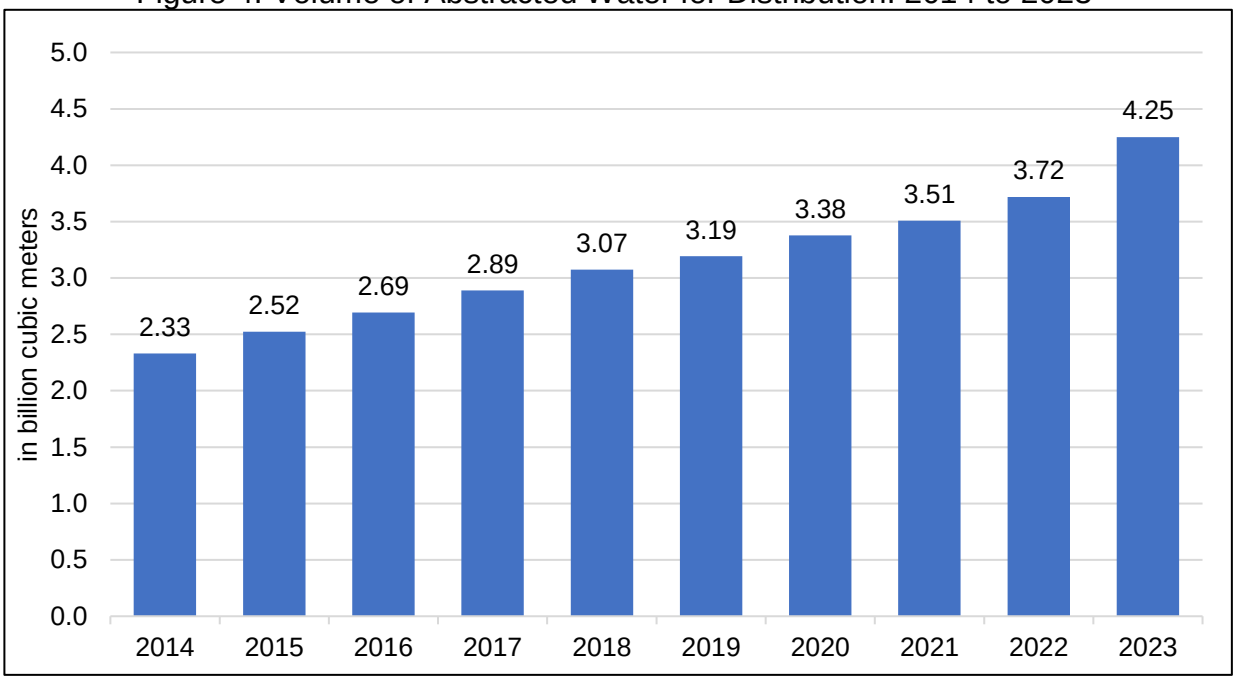
** Includes all Services, Water Supply, and Waste Management*
Source: Philippine Statistics Authority

Similarly, the volume of abstracted water for distribution amounted to 4.25 bcm in 2023. This was an increase of 14.3 percent from 3.72 bcm in 2022. (Figure 4)

In 2023, the largest share of distributed water was received by households at 40.1 percent. This is followed by other industries[2], mainly composed of Services, at 38.3 percent; and MQMC at 15.8 percent. The smallest amount of distributed water was used by the sectors of AFF and ES, with 5.0 and 0.8 percent shares, respectively. (Figure 5)

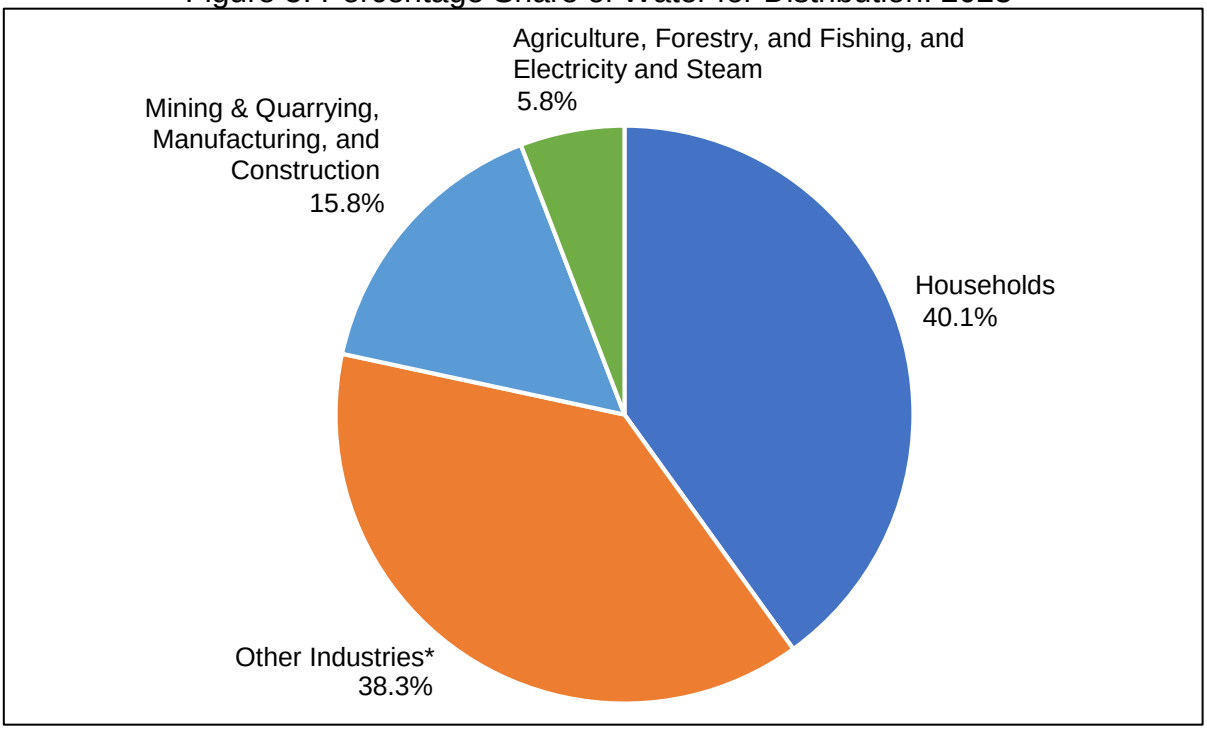
[2] Includes all Services and Waste Management

Figure 4. Volume of Abstracted Water for Distribution: 2014 to 2023



Source: Philippine Statistics Authority

Figure 5. Percentage Share of Water for Distribution: 2023

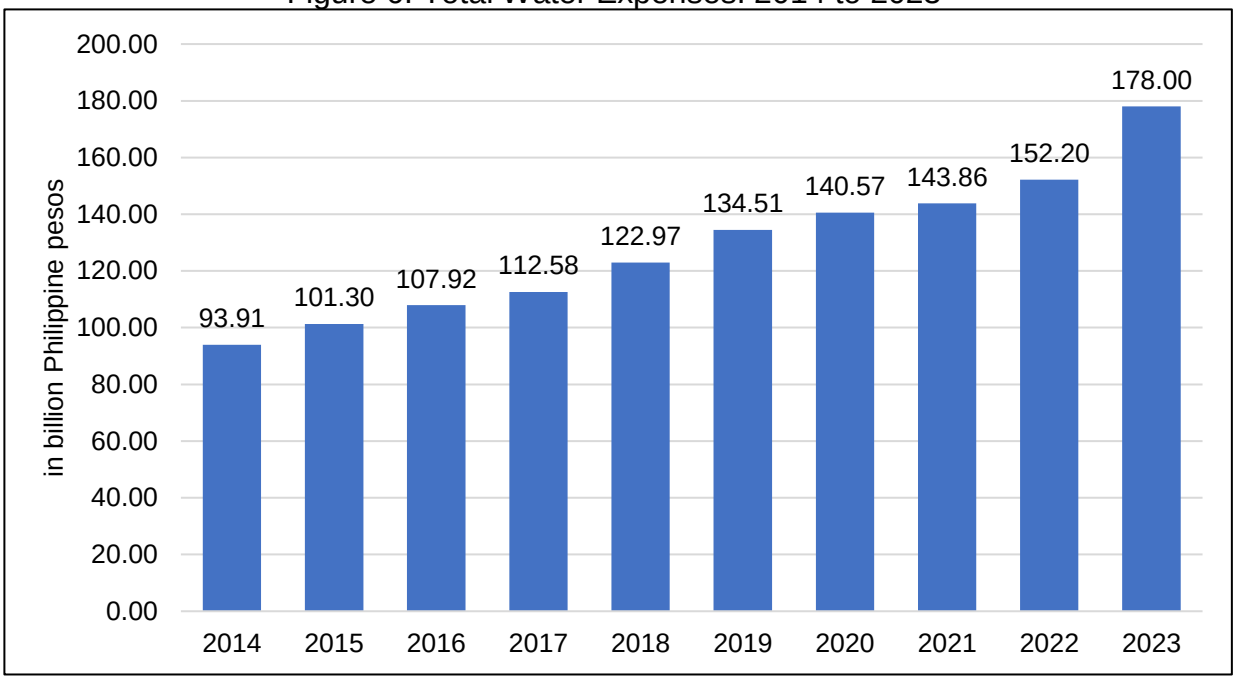


** Includes all Services and Waste Management*
Source: Philippine Statistics Authority

Monetary Flow Accounts

In 2023, the total water expenses amounted to PhP 178.00 billion. This was an increase of 16.9 percent from PhP 152.20 billion in 2022. Water expense was highest among households at PhP 70.88 billion. This was followed by MQMC water expenses amounting to PhP 52.53 billion. Other industries[3], composed mainly of Services, came in third, with water expenses amounting to PhP 45.98 billion. (Figures 6 and 7)

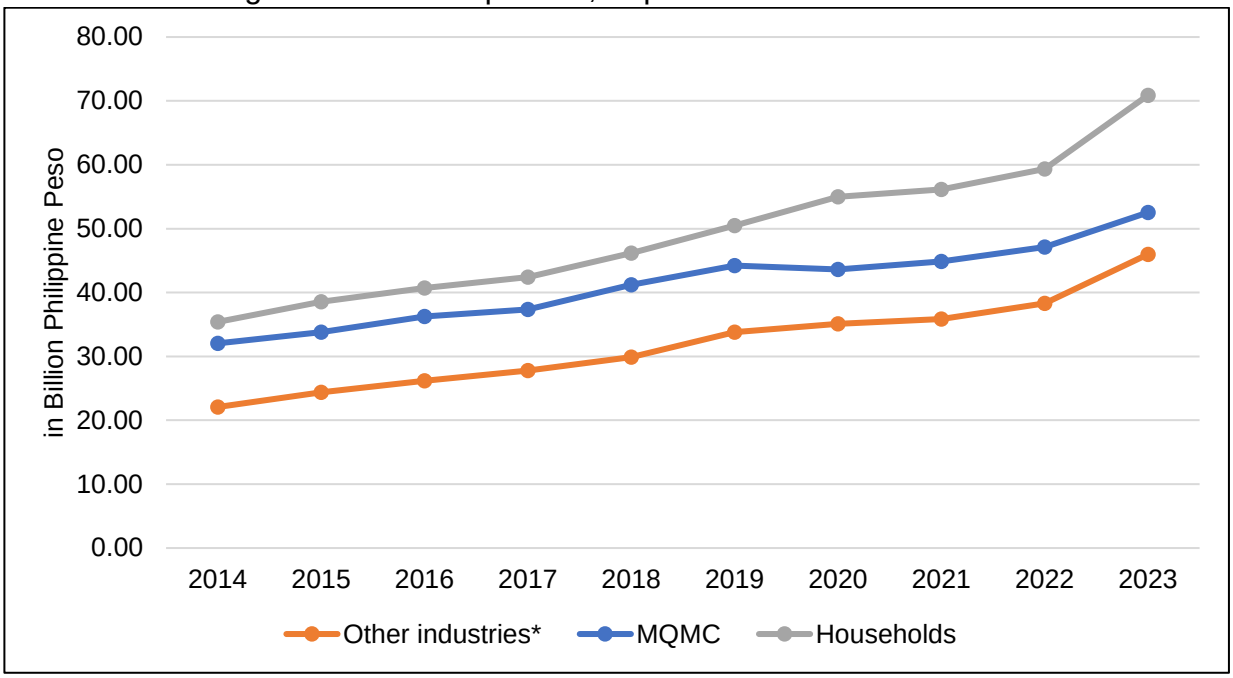
Figure 6. Total Water Expenses: 2014 to 2023



Source: Philippine Statistics Authority

[3] Includes all Services and Waste Management

Figure 7. Water Expenses, Top 3 Sectors: 2014 to 2023



** Includes all Services and Waste Management*
Source: Philippine Statistics Authority

Sustainable Development Goals (SDG) Indicators

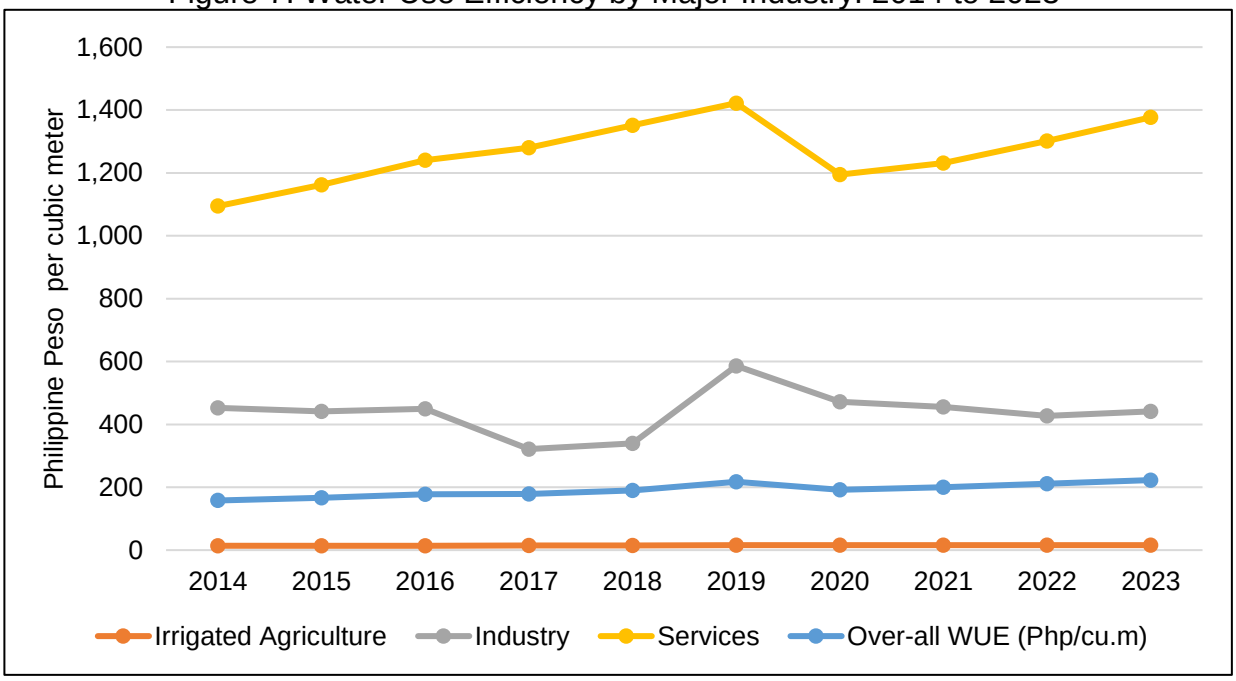
SDG 6.4.1 Change in Water Use Efficiency

Water Use Efficiency (WUE) is calculated as the value added of a given sector divided by the volume of water used, expressed in gross value added in Philippine peso per cubic meter of water used.

The country's overall WUE in 2023 was recorded at PhP 222.81 per cubic meter of water used. This was an increase of 5.6 percent from the PhP 211.05 per cubic meter of water used in 2022. (Figure 6)

In 2023, the Services sector continued to account for the highest WUE at PhP 1,377.21 per cubic meter of water used. This was followed by the Industry and Agriculture sectors with WUEs of PhP 441.04 per cubic meter of water used and PhP 15.81 per cubic meter of water used, respectively.

Figure 7. Water Use Efficiency by Major Industry: 2014 to 2023



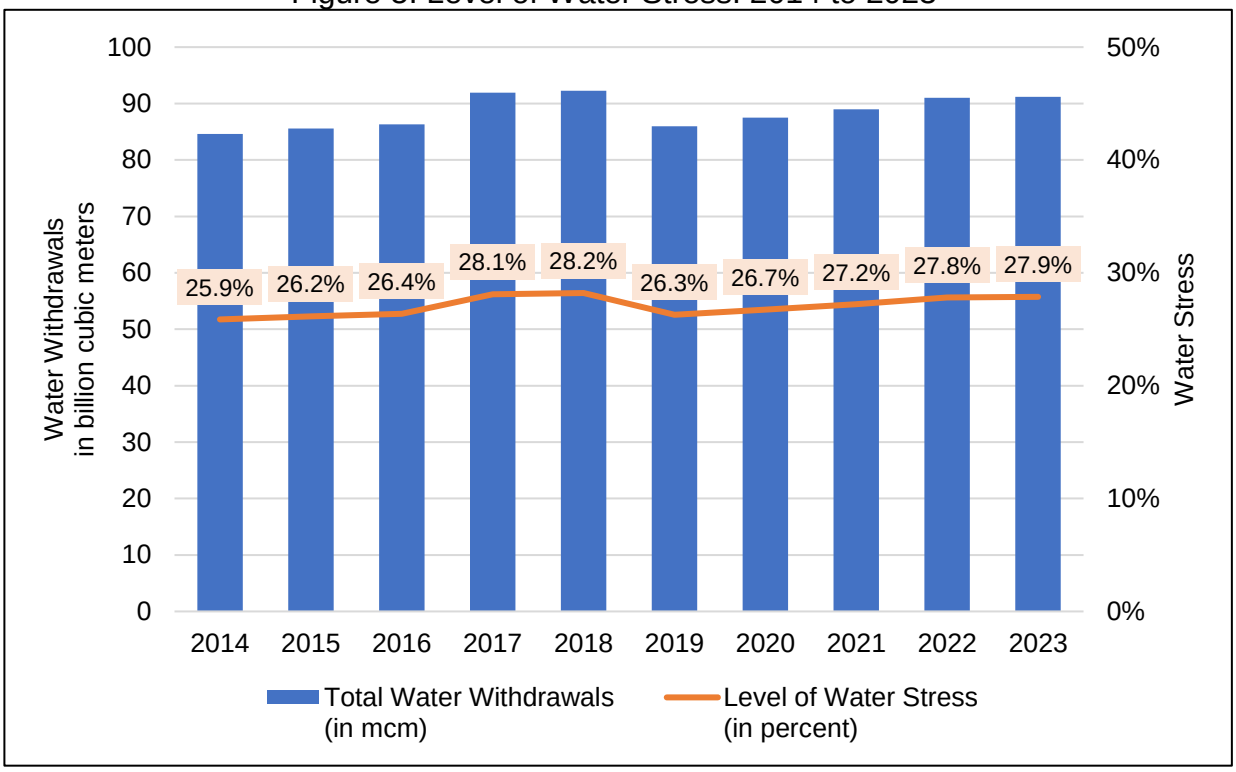
Source: Philippine Statistics Authority

SDG 6.4.2 Level of Water Stress

The level of water stress is calculated as the ratio between total freshwater withdrawn by all major sectors and total renewable freshwater resources, after taking into account environmental water requirements.

The total freshwater withdrawals increased to 91.20 billion cubic meters (bcm) in 2023 from 91.04 bcm in 2022. The level of water stress reached 27.9 percent in 2023. The annual level of water stress from 2014 to 2023 consistently fell within the low-level classification range set by the Food and Agriculture Organization of 25 to 50 percent.

Figure 5. Level of Water Stress: 2014 to 2023



Source: Philippine Statistics Authority

It should be noted that freshwater withdrawals for both SDG indicators exclude return flows from power generation due to its non-consumptive use. In addition, parameters on the available water resources of the Philippines, particularly the total renewable freshwater resources and environmental flow requirements, were adopted from the AQUASTAT database of the Food and Agriculture Organization of the United Nations, the international custodian agency for SDG Target 6.4: Increase Water-Use Efficiency and Ensure Freshwater Supplies.