

SAVING EVERY DROP IN WINE

GLOBAL INSIGHTS & SOLUTIONS ON WATER USAGE FROM THE PORTO PROTOCOL COMMUNITY



the PORTO PROTOCOL

INSIGHTS. NUMBERS. SOLUTIONS THAT ALREADY WORK

1 WHY THIS REPORT, WHY NOW



Water has always shaped wine. Now, it is defining its future.

- ☹ Droughts are intensifying
- ☹ Rainfall is becoming unpredictable
- ☹ Competition for water is rising

Our understanding of water has not evolved at the same pace as the conditions around us

2 THE NUMBERS THAT TELL THE STORY

~70%

of global freshwater withdrawals are linked to agriculture and



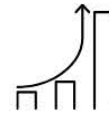
350-500 mm

annual rainfall can support dry farming in suitable conditions.



+16,000-25,000 L/ha

additional water retained per +1% soil organic matter



20% - 60%

potential reduction in irrigation needs depending on practices



75%

of winery wastewater comes from cleaning - not winemaking



1.6L VS 3.1L

water use per litre of wine can vary by more than 2x depending on practices

3 WHAT THE INDUSTRY GETS WRONG



Water behaves differently across vineyard and winery, but is rarely understood as one connected system



Efficiency is measured - but systems are mostly not



Wastewater is treated as waste—rather than a resource



Technology is adopted - but not always optimised

THE RESULT:

Water is managed... but not truly understood

4 A SHIFT IN THINKING

This report challenges a fundamental assumption:



WATER IS NOT JUST A RESOURCE. IT IS A SYSTEM



it moves



it transforms



it connects everything

Understanding water means:

- ✓ **Seeing flows**, not just volumes
- ✓ **Managing cycles**, not just consumption
- ✓ **Thinking beyond efficiency**

5 ABOUT THE REPORT

Saving Every Drop in Wine is a global report developed by the Porto Protocol. It brings together:



Scientific insight



Field experience



Real-world solutions from producers



From soil to cellar, it connects understanding with action—to support better decisions and reshape how water is managed across the wine industry.

6 SOLUTIONS ALREADY WORKING



Landscape design

slowing, storing, and redistributing water across the land



Soil & ecosystem management

improving infiltration and water retention



Rainwater harvesting

Up to **20%** water independence capturing and storing water for reuse



Operational efficiency

reducing water use through improved processes and equipment



Closed-loop waste water systems

Treating and reusing water within the production cycle



Water monitoring & data systems

Measuring flows and improving decision-making

7 THE REAL MESSAGE

The future of wine depends on:



Understanding water cycles



Managing variability



Designing resilient systems



Optimising water use is not the same as reducing impact. Without a full system view, improvements in one area can be lost in another.