MATERIAL TOPICS COVERED

- Preserving biodiversity and protecting vineyard landscapes
- Naturally regulating processes and gradual elimination of chemical substances
- Energy management and saving
- Water management
- Waste and wastewater management
- Climate change
- Creating sustainable value over time
- Certified sustainability

GRI STANDARDS

GRI 302-1 | GRI 302-3 | GRI 303-1
GRI 303-2 | GRI 303-3 | GRI 303-4
GRI 303-5 | GRI 304-1 | GRI 304-2
GRI 304-3 | GRI 305-1 | GRI 305-2
GRI 305-4 | GRI 306-1 | GRI 306-2
GRI 306-3 | GRI 306-4 | GRI 306-5

SDGs

Guardianship

100%

Estates

Biodiversity Friend certified

2 water treatment plants

3 constructed wetlands

Wastewater

100%

Headquarters

of the Group ISO 14001 certified

In sync with nature

ENVIRONMENTAL SUSTAINABILITY

The **conservation** and **appreciation** of the local area are distinguishing elements of our business. We strive to preserve the environment where the vines grow by adopting a **production system that safeguards the history of these places and the biodiversity of the soil**. It is an enduring system that maintains the capability of **repeating itself an infinite number of times, without consuming or exhausting the various factors that make it possible**.

For this reason, we are committed to environmental sustainability projects and campaigns, with the goal of **looking beyond the concept of profit and innovating our production practices** to build a more responsible future.

Since we rely on the land for our livelihood, it is vital that all the stakeholders in the value chain do their utmost to protect it. At the same time, we pledge to preserve the quality of water and to optimize its use. These principles are set out in detail in the "Environment and Sustainability" section of our Company Code of Ethics and Conduct[19].

Environmental sustainability is a **key part of the continuity, growth and success of the Ruffino Group**. In 2014, we adopted an ISO 14001 certified Environmental Management System that now covers all Ruffino S.r.l., Tenute Ruffino S.r.l. and Poderi Ducali S.r.l. sites, and goes hand in hand with a virtuous improvement process that ventures beyond merely conforming with legislation.

The management system is based on analyzing environmental risks (see Focus on environmental risk management) and is viewed as a dynamic tool, which is why it is updated at least once a year. This analysis also leads to the definition of control and monitoring processes of the main environmental aspects through various levels of internal instructions and procedures. We quantify, monitor and check the impact of all our operational activities on the environment, while improving the environmental performance of the supply chain.

The strategic and operational sustainability management is headed up by the **Sustainability & Environment Team**, which meets several times a year to define the Ruffino Group's strategy, in line with international, European and CBI's ESG goals.

[19] Further information can be found here: https://cutt.ly/7LH44Zl

Our approach

The **values** that drive our activities are **maximum consideration** for the land, which gives us its fruit, and **full awareness** of the importance of respectful agriculture. Maintaining the quality of the soil and its distinguishing biodiversity is pertinent to ensure **correct interaction between the vineyard and the environment**. We do not merely restrict ourselves to preserving the local area; we strive to **increase and boost biodiversity**. To ensure the correct protection of the landscape, we care for the green areas that surround our vineyards, preferring native species and, in some cases, we extend the defense to nearby wooded areas, guaranteeing that they uphold their purpose.

Tuscany is the region with the second most plant biodiversity in Italy, with 3,249 species. In terms of fauna, the region is home to 84 types of mammals, 421 birds, 19 amphibians, 22 reptiles, more than 60 fish species and a wealth of invertebrates[20]. Our estates can benefit from this **vast patrimony**: all the estates include swathes of natural woodlands that constitute greenbelts around the agricultural activities.

Our approach towards a cultivation method began in 2014 and continues with best practices from the point of view of continuous improvement.

Agricultural Best Practices Handbook (FY 2014)

The Agricultural Best Practices Handbook sets out the **operational guidelines** that call for the use of agronomical techniques focused on environmental respect, from preparing the soil for a new vineyard to its entire lifecycle. The handbook is a **dynamic tool** that contains all the practices that experience, technique and research have indicated, in order to increase the level of sustainability of the production processes.

World Biodiversity Association Biodiversity Friend certification (FY 2018)

The voluntary certification sets out **10 main actions** to manage the land responsibly and to act as custodians of environmental integrity. **Soil, water and air** are the three key elements on which specific surveys are conducted to define the parameters that form the suitability for Biodiversity Friend certification.

Our role and actions are aimed at ensuring conservation and preservation, avoiding all invasive interventions for production purposes that could potentially harm the ecosystems in which we work. In **Veneto**, the **planting** of tree species, addition of **hedges**, protection of the local **avifauna** by **maintaining wetlands** (via waterways) and the addition of **beehives** are just some of the projects that we started in FY 2022 and which have been added to the practices and tools already implemented to look after the soil and local area.

[20] Ispra.

Purchasing organic vineyards in Veneto (FY 2018) Full organic conversion (by FY 2025)

In addition to purchasing fully organic certified vineyards in Veneto, we have also set out a process aimed at **100% organic production in Tuscany by FY 2025**, following the natural evolution of the practices implemented in managing our estates.

Certification of the Integrated Production National System (FY 2021)

The certification is voluntary and it has been the standard to follow to comply with guidelines for the sustainability certification system in the wine industry since 2021. The system certifies the use of integrated production techniques that call for the application of **specific regulations** for each crop, **agronomic practices and binding instructions** for the use of plant health, and plant treatments.

Agricultural Best Practices Handbook (FY 2014)

The publication and adoption of the Agricultural Best Practices Handbook resulted in the Group's decision to implement certain actions. The main actions include:

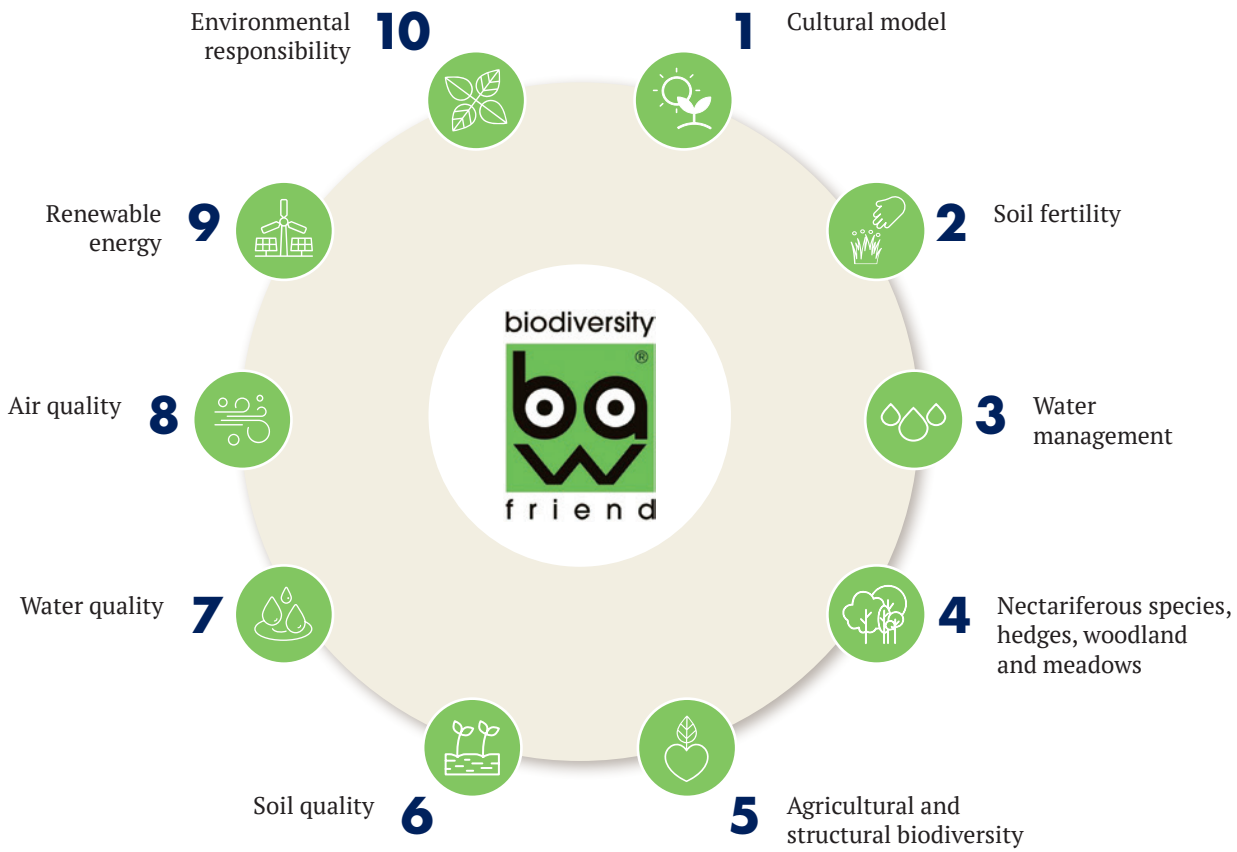
- Creating **sustainable and lasting vineyards**, respecting soil variability and the agricultural landscape;
- The **reasonable use of chemical products** to prevent and treat disease in the vineyard, aimed at **reducing these products**;
- Adopting **manure, especially organic manure**, aimed at increasing organic substances in the soil, hence increasing soil fertility;
- A focus on **green manuring**, which involves autumnal sowing and the subsequent planting of specific crops that improve soil fertility.

In line with the gradual adoption of organic cultivation methods and the extension of best practices to external grape growers, the handbook will be revised again in 2023.

World Biodiversity Association Biodiversity Friend certification (FY 2018)

As an additional structured and recognized safeguard, all of our agricultural sites have been Biodiversity Friend certified by the World Biodiversity Association (WBA) since 2018, which considers the following 10 actions as the rulebook for biodiversity in agriculture:

Figure 10: Biodiversity ten-point rulebook



Our modus operandi is based on these principles as we strive to respect and implement processes and projects that aim to manage water responsibly, ensure checks of weeds and parasites using low environmental impact methods, encourage the growth of hedges and woodland, as well as encouraging woodland and hedges, and adopting rotation processes of cultivated land.

How is the biodiversity level certified according to the WBA?

To assess the biodiversity level in an objective way, the WBA takes into consideration three different indices:

- **Soil Biodiversity Index** is calculated based on soil samples, which through identifying the micro-organisms in the vineyard pinpoints the microbial communities in the soil and their consolidation or increase, also depending on the actions taken in the vineyards, such as manuring and weed management;
- **Aquatic Biodiversity Index** is based on assessing the hydromorphology and aquatic macroinvertebrate communities, which are excellent bio-indicators to assess the quality of surface freshwater;
- **Lichen Biodiversity Index** analyzes the lichen communities that do not grow on the ground, but mostly on tree trunks or branches. Lichens are a valid indicator of air quality.

Purchasing organic vineyards in Veneto (FY 2018) Full organic conversion (by FY 2025)

The process of converting our estates to organic agriculture began in FY 2016. In FY 2017, we removed herbicides on the Poggio Casciano and Greppone Mazzi estates, replacing them with mechanical actions. Insecticides were replaced by biological fighting against the main insects that attack the vines. In **FY 2019**, following the natural evolution of the practices implemented in estate management, **we structured and defined an organic conversion process in Tuscany that aims for 100% organic production by FY 2025**.

Organic vineyard management

Adopting an organic production method entails a radical change in vineyard management, profound knowledge of the vines and the differences in their resilience and microclimate.

Continuous monitoring is essential to ensure the required protection of the vineyard against disease and parasites. The use of cultivation methods with a reduction in chemical products requires the use of specific agricultural machinery and timeliness in operational choices to guarantee maximum efficiency and a minimum impact on the land.

The principles on which organic production are based are:

- No herbicides;
- Organic manure;
- Protection against the main vine diseases using solely copper, sulfur and products of natural origin;
- Alternative means for the fight against the main insects, including the "sexual confusion" technique[21].

[21] The method consists of releasing into the air the sexual pheromone that the female of each specific target insect emits, to such an extent that the male is stopped from localizing and fertilizing. The failed coupling will lead to a much reduced larvae population and therefore less damage to the plant.

Certification of the Integrated Production National System (FY 2021)

At the same time, to support the direction taken to convert to organic and with the aim of contributing to the preservation and defense of the values of nature, we adopted an **integrated agriculture** system, namely a production system with a low environmental impact that calls for a coordinated and rational use of all production factors, in order to reduce to a minimum the impact on the environment, consumer health with the use of a reduced and well defined number of chemical products, endorsing a voluntary integrated defense system. We retained that it was important to obtain certification that attests to our compliance with the Integrated Production Guidelines and, starting with the 2020 harvest, **all our companies were certified with the standard "Sistema di Qualità Nazionale di Produzione Integrata" (SQNPI)**. In March 2022, the certification became the basis of the standard to certify the sustainability of the grape supply (Ref. "Ruffino Cares" section).

Analyzing environmental parameters to look after the vineyards

To reduce chemical products to prevent and treat disease in the vineyard, we also use advanced weather and environmental sensors that collect forecast data such as temperature, air humidity, rainfall, leaf wetness and wind speed, in order to provide a timely and balanced defense against disease with a lower impact on the environment.

This process is helped by a Decision-Making Support System (DSS), software that gathers, organizes and integrates field information, providing support and alerts in order to make informed vineyard management decisions.

Protected areas

Although we do not operate in protected areas that are part of the national or regional park system, Tenute Ruffino has parts of its land in the Siena province, in the sites classified as **Rete Natura 2000**. The area of the Solatia estate vineyard near Case Nuove, which extends across about four hectares and grows Sangiovese to make quality IGT and DOCG Chianti Superiore wine, is part of La **Montagnola Senese**[22]. The site consists of a mainly wooded sub-mountainous area with parcels scattered with crops, conifers and small pastures. The area has a decent level of nature with a high biodiversity of species and habitats, including predators like the **short-toed snake eagle** (*Circaetus gallicus*), amphibians like **northern crested newt** (*Triturus carnifex*), species that are endemic to Italy and some endemic invertebrate species.

On the Murlo farm, which is part of the Greppone Mazzi estate, about five hectares of pasture next to the Cerrino vineyard, where international grapes like Alicante Bouschet and Petit Verdot grow, belongs to the **Basso Merse** Rete Natura 2000 site[23]. The site consists of a mainly wooded hilly area with an abundance of evergreen sclerophyllic formations, as well as hornbeam and oak woods. The high level of nature means that there are many predators such as the short-toed snake eagle, the European honey buzzard and the Eurasian hobby, while mammals include the European pine marten (*Martes martes*) and wildcats. The pristine environment allows for abundant native fish species and the now rare **Eurasian otter** (*Lutra lutra*). Amphibians include the spectacled salamander in addition to numerous rare invertebrates.

On both sides, Ruffino's agricultural and anthropic activities are minimal and have limited impact on the flora and fauna. The land is used to grow vineyards or used as pastures; there are no buildings or other activities. Although the European and regional legislation for these two sites is not particularly strict, we constantly monitor our activities to protect the biodiversity of the terrain and habitats.

[22] For more information about the Montagnola Senese Site: https://natura2000.eea.europa.eu/Natura2000/SDF aspx?site=IT5190003

[23] For more information about the Basso Merse Site: https://natura2000.eea.europa.eu/Natura2000/SDF. aspx?site=IT5190007

Our projects to protect the environment and biodiversity

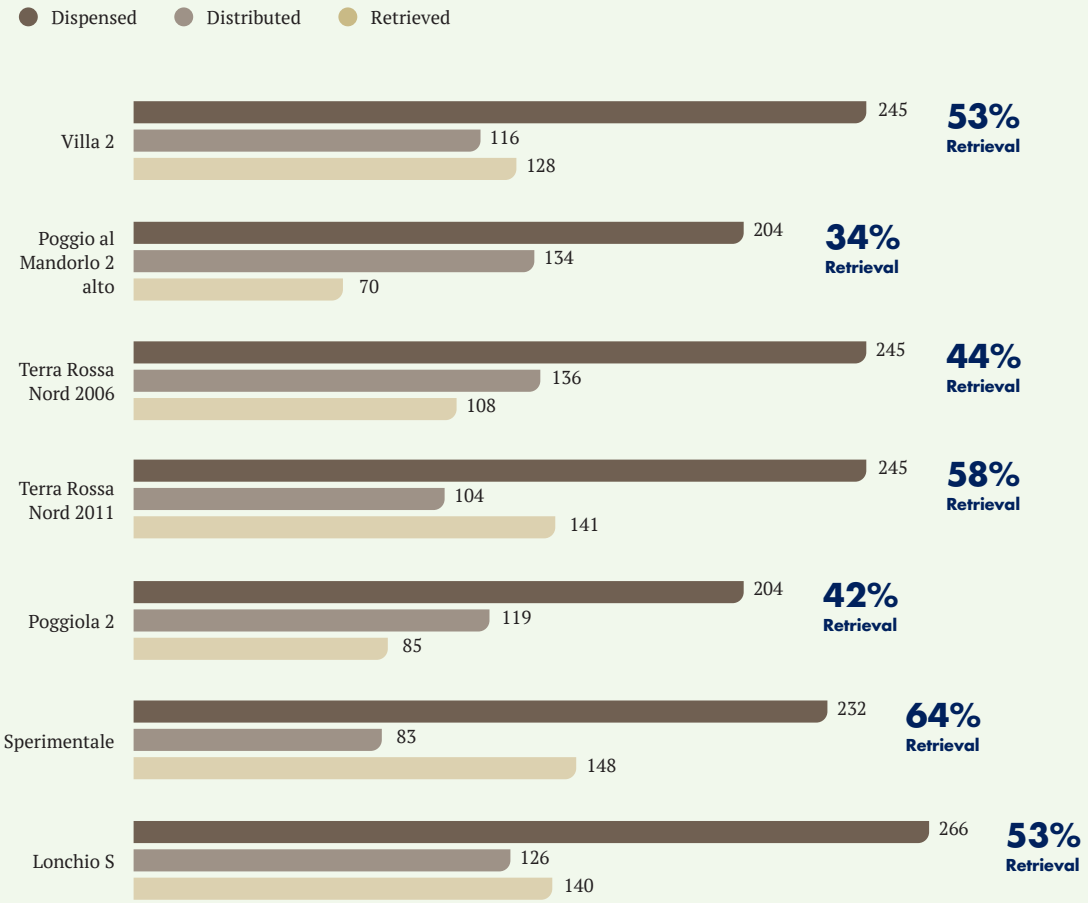
Pesticide distribution system with retrieval at Poggio Casciano

Since 2015 we have been using machinery on the Poggio Casciano estate to disperse pesticides with retrieval of part of the mix.

The machine ensures the utmost **efficiency in dispersing the products, greater effectiveness and reduced consumption and dispersion** into the environment.

The chart shows the liters of product that have been dispensed, distributed and retrieved for every vineyard. On average, the retrieval percentage is between 40 and 60%. **This machine has allowed us to half the use of pesticides and, given the results in FY 2022, another retrieval machine has been purchased**.

Budbreak - fruit set



Council for Agricultural Research and Agricultural Economics Analysis

The partnership continues with CREA-Viticoltura Enologia di Conegliano, which started in FY 2019, to **monitor flavescence dorée**, a disease that causes the vines to struggle to grow and the grapes not to ripen.

The work carried out with the center enables us to direct the measures taken in the vineyards and to pinpoint any infected vines that have to be removed to contain the spread. This partnership means that we have developed **greater knowledge about the disease and defense techniques**. Over the years, it will be possible to develop statistics about its evolution aimed at increasing the defense of our vineyards.

Tenute Ruffino S.r.l on the frontline in developing research against vine disease

Italy's vineyards are increasingly harmed by esca, a disease caused by a group of fungi that compromise the healthy growth of the vine, causing damage in terms of production, quality and revenue.

For this reason, the Unione Italiana Vini, University of Florence, the Italian National Research Council, Perleuve and the app 4Grapes have joined forces to find a solution and increase knowledge about the disease through national monitoring, which aims to involve an increasing number of companies through the research titled "Study about vine wood disease in the main winemaking regions in Italy".

Following a questionnaire aimed at analyzing just how widespread esca is, which vine varieties are affected the most, the extent of the financial damage and which agronomic practices are adopted to prevent the disease, field monitoring was implemented to be able to study the trends at a national level.

The surveys conducted on Ruffino's estate showed that only a fairly reduced portion (on average, 4.25% of the total vines analyzed) are affected by esca and the gravity of the symptoms (average 2.23%) found in the vineyard is currently not regarded as critical.

Towards agriculture 4.0 – Project KATTIVO

Project KATTIVO, which started in FY 2020 as part of the Tuscan Rural Development Programme, implemented within the scope of the 2017 regional tender announcement in support of the Operational Groups for the European Innovation Partnership (Go Pei), was introduced with the intention of **protecting the vineyard** in a timely and precise way, **limiting intervention with chemical products to the required dosage**, reducing their usage and dispersion into the environment.

Tenute Ruffino, which leads the project, with the contribution of Azienda Agricola San Felice and other partners, has developed a **kit to disperse pesticides with innovative variable dose technology** (VRT) capable of modulating the dosage of pesticides efficiently based on the **needs of the vineyards and soil**. The kit allows a "traditional" dispersion machine to be turned into a VRT machine: it ensures the technical adjustment and economic sustainability of this transformation.

The kit features ultrasound sensors that are capable of intercepting the volume of the vegetation and sends these data to the monitoring station that, based on the information received, adjusts the volume of the mix to be dispensed in each vineyard.
The project has met and responded to several **challenges**:

- **Technological**: due to the development of an innovative system for precision viticulture and 4.0 agriculture;
- **Operational**: being able to work in vineyards in hilly areas where the use of pesticide retrieval machines is hard;
- **Environmental**: managing the use of pesticides and water in a more responsible way;
- **Occupational**: developing new digital and agro technical skills due to training field operators.

Field testing, thanks also to the support of our scientific partners, validated the effectiveness and usefulness of the kit, confirming the possibility of embarking on the design of a prototype developed for use for other wine companies.

Podere la Duchessa – Vine and landscape

In the drive for continued protection and development of the biodiversity, in FY 2020 we embarked on a plan for the environmental scenic inclusion of the grape-growing system of Podere La Duchessa in sync with organic agriculture protocols. The project aims to increase the biodiversity of the soil and estate by creating green areas to ensure diversity and a home for endemic species; developing the landscape by planting native tree species and an orchard with old indigenous fruit varieties, adding flower beds and woodland for bees; and installing insect hotels and bat boxes.

Respecting resources

We are committed to implementing a production cycle that includes **reducing our environmental footprint** through reduced energy usage, the use of energy from renewable sources, more efficient water consumption, and the reduction, recycling and correct disposal of waste, in addition to working with suppliers who share the same philosophy.

Energy

Improving energy efficiency and increasing the energy supply from renewable sources

100% in Ruffino S.r.l.
65% in Tenute Ruffino

Electricity
from renewable sources

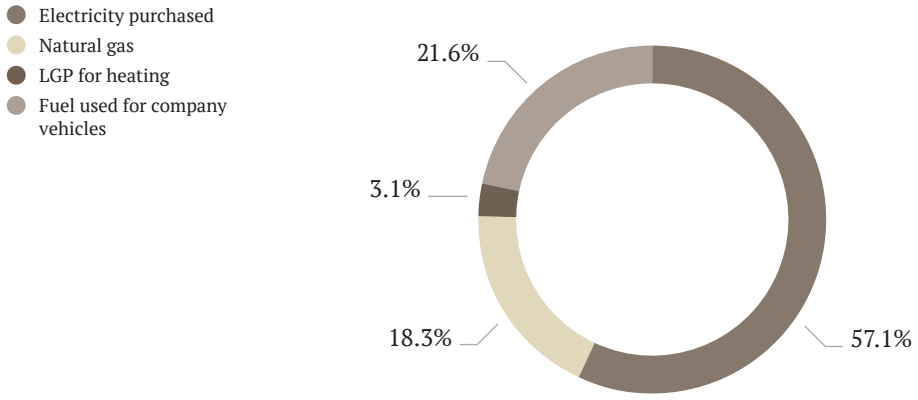
In FY 2021, we started research to plan photovoltaic systems on our production sites. In FY 2022, for Tenute Ruffino S.r.l., systems were installed at the Gretole winery, while in FY 2023 a similar system will be installed at the La Solatia winery. Both for **Ruffino's Pontassieve headquarters and Poderi Ducali**, a **feasibility study** is underway, which is expected to be concluded by FY 2023.

In FY 2022, the energy mix consisted in **59% of the electricity acquired** (13,218 GJ), 57% of which was for production processes (7,505 GJ)[24], 32% for air conditioning (heating and cooling) (4,195 GJ) and the remaining 11% for lighting (1,518 GJ). 22% consists in the **fuel** (diesel and petrol) (5,003 GJ) used in company vehicles.

In order to lower the C02 emissions from company vehicles, in FY 2022 the company installed electric charging points in Pontassieve in line with replacing company vehicles with an electric one (currently five company vehicles).

Lastly, the lesser figures concern the **natural gas** used by Ruffino S.r.l. and Tenute Ruffino for air conditioning (heating/cooling) and to a lesser degree for production in Ruffino S.r.l (4,240 GJ) and the **LGP used for heating** for Tenute Ruffino (708 GJ). Overall, **22,460 GJ** have been used, up slightly compared to the previous year (+1%). The energy intensity[25] is down compared to the previous year (0.00020) at 0.00017.

Energy mix of the Ruffino Group in FY 2022



[24] The conversion factors for the energy used are those suggested by "UK Government GHG conversion factors for company reporting" for 2021, 2020 and 2019.

[25] The energy intensity is calculated as a ratio between the Group's total energy usage in JG and the Production Value in the Consolidated Financial Statements for the three-year period.

Emissions

Greenhouse gas emissions Scope 1 and 2

FY 2025: -15%
FY 2030: -50%
FY 2050: carbon neutrality in line with the EU Sustainability Goals

The direct GHG emissions (Scope 1) generated in FY 2022 totaled 610 tCO_2eq[26], are down by 2% compared to the previous year; indirect GHG emissions[27] (Scope 2 location based) totaled 856 tCO_2eq, compared to 758 tCO_2eq in FY 2021; indirect CO_2eq emissions (Scope 2 market based) amount to 607 tCO_2eq (389 tCO_2eq in FY 2021).

[26] Regarding the calculation of the direct GHG emissions (Scope 1), the emission factors set out by "UK Government GHG conversion factors for company reporting" were used for 2021, 2020 and 2019. To calculate the indirect GHG emissions (Scope 2), the following methodology was used: for location-based emissions, the "UK Government GHG conversion factors for company reporting" emission factors were used for 2021, 2020 and 2019; for market-based emissions, reference was made to the residual mix shown by "AIB-European Residual Mixes 2020, V. 1.0, 31st May 2021", "AIB - European Residual Mixes 2019 - V. 1.1, September 2020" and "AIB - European Residual Mixes 2018 - V. 1.1, 28th May 2019".

[27] Indirect CO_2eq emissions (Scope 2) can be calculated using a double methodology: "location based" and "market based". More specifically, the first method considers an average factor of CO_2eq emission of the national electricity network (the country where the electricity is used), while the latter takes into account emissions from electricity, based on the contractual form intentionally chosen by an organization.
For example, for energy from FER, the emission factor of CO_2eq will be zero; in the case of other non-renewable energy sources, a residual mix is used (defined at a country level) if the intensity level of the organization's emissions is not specified in contracts.

In FY 2022, emission intensity[28] totaled 0.00001 $tCO_2eq/K€$ in line with the previous year.

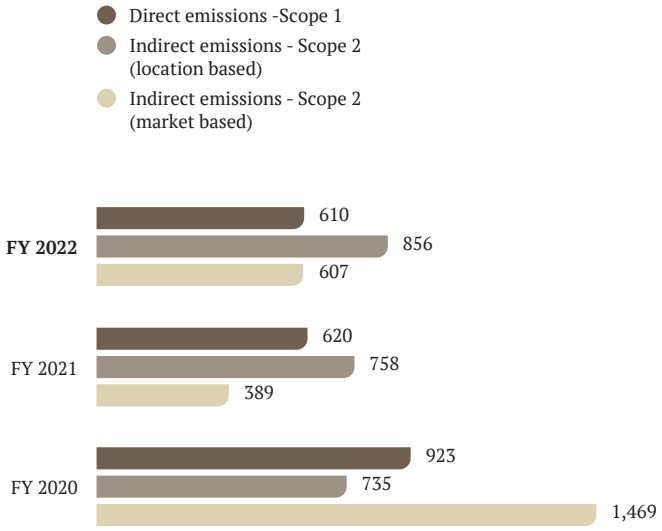
SCOPE 1

- Company vehicles
- CO_2 used in the winemaking processes and in other processes
- Soil emissions where there are vineyards
- On-site waste
- Coolants for wineries and other places

SCOPE 2

- Energy purchased from the local grid
- Energy produced from on-site renewable sources

Direct and indirect emissions



[28] The energy intensity is calculated as a ratio between the Group's total CO_2eq emissions (Scope 1 and Scope 2 location-based) and the Production Value in the Consolidated Financial Statements for the three-year period.

Water

Reducing water use per product unit

FY 2025: +25% recycled water

The nature of the winemaking business requires a high amount of water. Water availability is central to all our production processes: from irrigation in the vineyards to plant treatments, washing and cleaning spaces and equipment, and the winemaking process itself.

We are deeply aware of the value of water: it is an **invaluable resource with limited availability**. For this reason, we are committed to management aimed at **rational use** through a **precise monitoring system of the water withdrawn and consumed**, which is equipped with meters installed on the sites. We also encourage investments in **technological innovation to improve efficiency** and we seek new water supply sources by restoring the **springs on our estates** and **creating new wells**, plus treating and reusing wastewater.

Irrigation has become a powerful means of stabilization in the production and interaction between the grape, soil and vintage, also in response to **climate change**. An effective irrigation system makes it possible to **adapt the company's production processes to the effects of seasonal variation**, increased by climate change.

From this point of view, we have embarked on **implementing a drop irrigation system**, which enables the water to be supplied gradually and controlled directly by the roots, reducing usage compared to traditional irrigation methods and maintenance costs. The **irrigation programming is digitalized** and can be managed remotely, thereby regulating the irrigation shifts and sectors. The water used is taken from natural channels surrounding the company (Veneto) or from man-made basins, which are filled with rainwater (Tuscany) before being returned to the environment in a closed circuit with irrigation.

The project concerns **80% of all the surface area under vine of the Group's estates in Veneto**, totaling 107 hectares. For the **estates in Tuscany**, starting in FY 2021, a three-year plan was presented and implemented to **create and/or strengthen the irrigation systems** on the Poggio Casciano, La Solatia, Gretole and Tuopina estates with a **total investment of € 725,000**. 24 hectares are currently irrigated: 20 at Poggio Casciano and 4 at Gretole. Due to the implementation of the irrigation system, plans are in the works to increase the irrigated surface area:

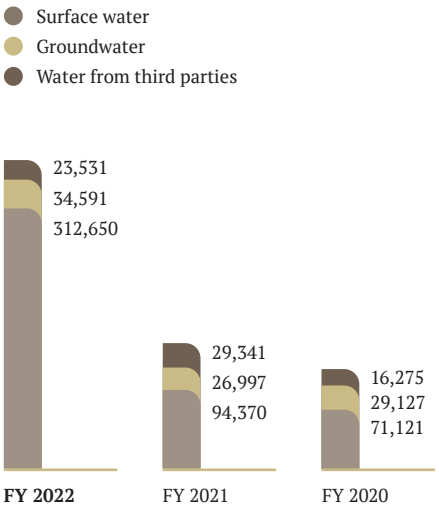
- 50 hectares at Poggio Casciano;
- 53 hectares at Gretole;
- 35 hectares at Tuopina;
- 20 hectares at La Solatia.

About 33% of the surface area of the estates in Tuscany are expected to be irrigated, ensuring sufficient stability for production, even when weather conditions become critical.

Furthermore, the project underway on the Gretole estate includes the development of a **"precision" irrigation system**, which will allow for different **quantities of water based on the soil type**, hence the water actually required.

Every year, the Ruffino Group compiles a report on the company's water use through quantitative and qualitative analysis. The quantitative data refer to the amount of water taken from the supply and discharge by treatment type. The qualitative data measure the physical and chemical parameters of the incoming and outgoing water. The TPM methodology uses data gathered to identify the projects to be implemented following the results obtained from the screening from the standpoint of continuous improvement (ref. "Road to TPM" section).

Water withdrawn by source



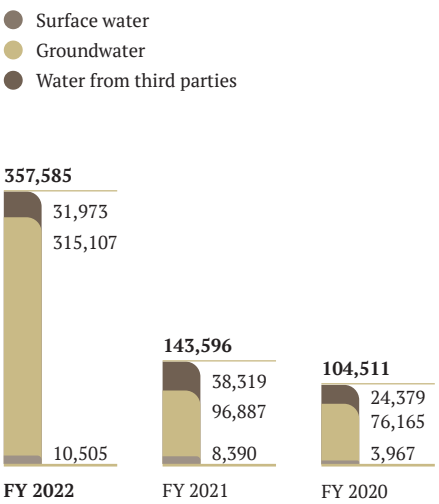
The **Aqueduct Water Risk Atlas by World Resources** was used to certify the level of water stress. In particular, the analysis showed that the water stress at the Ruffino S.r.l. (Pontassieve) headquarters is "high" (80%), at the Poderi Ducali HQ (San Dona di Piave) "medium-high" (20-40%) and at Tenute Ruffino S.r.l. (Bagno a Ripoli) "extremely high" (>80%)". In FY 2022, the water withdrawal increased as a consequence of last year's new Portogruaro vineyard of Poderi Ducali, which requires more water for irrigation. Notwithstanding this, **water is not blocked in the production process**. It is used for irrigation and is mostly returned to the ground.

Wastewater treatment

In order to manage water responsibly, we have installed **two water treatment plants** – for Ruffino S.r.l. in Pontassieve and for Poderi Ducali S.r.l. in San Donà – and **three constructed wetlands for wastewater** on the Greppone Mazzi, Solatia and Gretole estates. In particular:

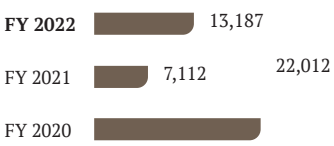
- The **purification systems** have been installed in the Pontassieve plant of Ruffino S.r.l and in the San Donà plant of Poderi Ducali S.r.l. They consist in **organic purification systems** that combine a membrane separation system with the traditional active mud purification process; the membrane system separates organic mud from the rest of the clarified or treated wastewater. The water treatment plants consist in organic purification systems, namely the biodegradation by micro-organisms, known as active mud, of all the organic substances in the water that undergoes treatment, turning them into simpler and more innocuous substances from an environmental perspective. The action of the active mud is supported by a system that separates the organic mud from the rest of the clarified or treated wastewater. The treated water is stored in a tank before being channeled back into the municipal sewers. This activity optimized mud production and disposal in terms of quality and the amounts produced. In FY 2022, the quantity has been reduced by a third and it is estimated that there will be further reductions in the amount of mud disposed by Ruffino S.r.l. in FY 2023.
- The **constructed wetlands** enable the cellar's wastewater to be treated naturally through the use of common **marsh plants** and the **natural filtration of the water** with sand and gravel. The marsh plants support the purification process by absorbing the polluting substances discharged into the water, turning them into organic substances that are useful to the growth of the plants. Moreover, the transpiration of the water absorbed by the plants, combined with the evaporation of the surface of the soil, enables a considerable reduction in the volume of the treated wastewater. Approximately **2,500-3,300 cubic meters** have been treated in each of the wastewater systems at Gretole and La Solatia in the last two years. In addition to the environment benefits, the savings made, compared to traditional discharge disposal, foresees a quick return in the investment made to create the constructed wetlands. The wastewater, which is no longer managed as waste, is regularly analyzed in terms of physical and chemical properties. Having checked the compliance with legal requirements, it is discharged, depending on the site, into surface water or into drainage channels. The purified water may also be potential used for irrigation purposes and in case of need.

Water discharge by area (ML)



The **water discharge** in FY 2022 was primarily used for irrigation (88%). In the last year, the chart shows an increase in water discharge compared to the previous two-year period due to irrigation of the new Portogruaro vineyard of Poderi Ducali. Notwithstanding this, water is not wasted. It is used for irrigation and is mostly returned to the ground.

Water usage (ML)



Waste

The Ruffino Group is divided into two types of macro activities: agriculture, including wineries, and bottling.

In terms of **agriculture**, the ongoing conversion to organic farming requires timely monitoring of the use of pesticides and other chemicals, in addition to a gradual and sizable reduction in the amounts used. Pruning and tending to the greenery create trimmings that are left on the ground to restore the plant material in the soil.

One of the practices adopted by the Group for the reuse of **production waste** is that the stalks produced by the grapes, after an initial spell in storage, are returned to the soil on the various estates as a natural conditioner during preparations for a new vineyard. The production of stalks as a by-product of winemaking for the Greppone Mazzi, Poggio Casciano, La Solatia and Gretole estates is around 73,000 kg, 1,500 kg, 6,500 kg, 24,000 kg and 41,000 kg respective for each estate.

The **maintenance of equipment and workshop activities** produces waste that is sometimes hazardous, albeit in extremely small amounts, of materials like rags and used clothing, used oil containers, paint, empty canisters, etc. Cellar activities generate residual waste deriving mainly from regular upkeep.

At the Pontassieve site, the most waste comes from the purification mud. This is a non-hazardous type of waste that is recycled. On the same site, where the **bottling** takes place, different types of waste linked to packaging activities are generated (glass, packaging plastic, paper and card, wood, labels, closures and capsules), in addition to the normal non-hazardous waste from office work (paper, plastic, etc.) that follows urban waste regulations.

Our internal **laboratory** produces a small amount of hazardous waste (mainly acid used in analyses), while the remainder comes from plastic packaging, such as vats and cans that contained hazardous substances.

We are aware that waste production still cannot be removed entirely from our activities, but in line with the managerial methods implemented to date aimed at incorporating circular economy guidelines, we aim to **reduce waste production to a minimum** and where this is not possible to recycle the highest possible amount. In particular, our management foresees, in addition to **reinforcing waste prevention measures**, the introduction of an approach that takes into account the **entire lifecycle of products and materials** to increase the amount of retrieved and reused materials, giving them back economic value, also due to the practical application of the waste hierarchy set out in the European Directive[29]. We share the principles of prevention, preparation for reuse, treatment and recycling internally, and in order to clarify the importance of these concepts, **we involve all colleagues and contractors in the correct management of waste**.

Due to work across company departments, **criteria have also been defined to create a list of suppliers** that take into accounts certain environmental parameters, preferring suppliers that already use recovered and/or recycled material and that permit improved waste disposal from the point of view of the circular economy.

[29] EU legislation on waste management – Directive 2008/98/EC.

Evaluation of Sustainability

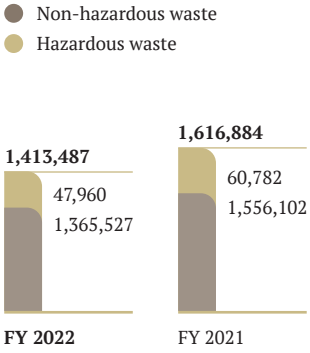
The "Evaluation of Sustainability" (EOS) project began in FY 2022. It defines tools to assess all our packaging suppliers in terms of sustainability, such as the impact of their products in terms of CO_2 emissions throughout the product lifecycle. Alongside environmental matters, the social aspects and working conditions, such as the introduction of welfare policies, will be monitored. This index will enable us to select our partnerships in an increasingly informed way in the near future.

In particular, to **increase more awareness** about waste management and constant alignment with legislative developments, in FY 2022 various training sessions were organized for the roles involved:

- In Ruffino S.r.l. specific training regarding topics for correct waste management and the management software used (2 participants); filling in and presenting the MUD 2020 statement (1 participant), emergency management in case of engine oil spills (3 participants);
- In Tenute Ruffino training on environmental legislation involved the estate managers and the grape supply manager (4 participants);
- In Poderi Ducali Ruffino, a specific four-hour training session was organized, held by an external company that involved four employees in charge of waste management. In particular, the course examined the correct identification of the type of waste, agricultural waste and cellar wastewater management, with a focus on the legislation in force and correct compliance.

In FY 2022, **two audits** were also carried out to **check waste management on every main site**.

Waste by type (kg)



During the year, there has been a **13% reduction in the waste produced** compared with FY 2021. Due to the pursuit of efficient management, the production of hazardous waste, which concerns 3% of the total, is down by 21% compared to the previous year. During the year, 54% of the waste is recycled, while the remainder ends up as landfill.

Waste produced by type FY 2022