environmental value
3.1

Back to the Future
Starting from the Present

The environment needs to be protected in the interests of all the communities and future generations. Starting from this postulate, illycaffè is driven by the principles of eco-sustainability and is committed to minimizing the impacts of its activities by using the best technologies available in the marketplace. Moreover, the company operates in keeping with the national and regional laws of the countries in which it carries out its business.

illy’s environmental policy starts in the hearts of plantations, limiting all possible negative impacts on the surrounding ecosystems, thanks to the adoption and promotion of responsible behaviors, and ends with the creation of sustainable quality products, with the lowest possible environmental impact also when they are used and disposed of.

Highlights

+18.7% Increase in environmental protection expenses over 2016
100% Electricity coming from renewable sources
12,290 Plants and native trees planted thanks to the reforestation project in Támara, Colombia
illycaffè manages its own direct impact on the ecosystem and promotes the use of sustainable and responsible practices at all levels of the supply chain. Thanks to a certified environmental management system, the company has improved its performance over the years in terms of energy efficiency and sustainable waste management. To meet the objectives set by the 20-20-20 European Protocol on the reduction of CO₂ emissions, illycaffè has also developed new packaging models with a lower environmental impact and introduced eco-friendly innovations in the productive process. With green coffee producers the company promotes economically and environmentally sustainable agronomic practices. Lastly, the minimum use of active principles makes it possible to provide consumers solid guarantees in terms of food safety.

In general, the company’s responsibility to the environment and to future generations can be seen in the improvement objectives that it set for itself and that it is committed to pursuing in the future.

ILLYCAFFÈ ABROAD: EXAMPLES AND GOOD PRACTICES

The foreign affiliates pursue the company’s objectives in the environmental field. LED lighting systems were introduced in a number of them while all of them sort their waste.

In the United States the company launched the illy iperespresso Recycle Program for the collection of exhaust capsules. In 2017 894,440 capsules were collected – up 28.8% on 2016 – for a total of over 8,120 kg. of propylene and 6,005 kg. of coffee to be recycled. Once it is opened and separated from coffee, the plastic is disposed of in the appropriate end-of-life-recycling (material recovery) process while the coffee grounds are sent to composting.

WORLD’S MOST ETHICAL COMPANIES

Every year Ethisphere Institute, a global leader in defining and advancing the standards of ethical business, lists the World’s Most Ethical Companies®, that is the companies that invest in local communities worldwide, adopt strategies based on diversity and integration and focus on long-term results, using sustainability not only as a result but as an objective. Illycaffè was included in this list for the fifth consecutive year in 2017, which is evidence to the company’s effort in advancing and implementing ethical standards and practices. This was the eleventh year in which Ethisphere honored the companies that use their influence to advance and drive positive change, that evaluate the impact of their actions on their employees, investors, customers and shareholders and that use their values and culture as a support and guide in their daily decisions.

METHOD AND SCORE

The World’s Most Ethical Companies assessment is based upon the Ethisphere Institute’s Ethics Quotient® (EQ) framework, which offers a quantitative way to assess a company’s performance in an objective, consistent and standardized manner. The information collected provides a comprehensive sampling of definitive criteria of core competencies, in addition to all the aspects of corporate governance, risk, sustainability, compliance and ethics. Scores are generated in five key categories: ethics and compliance program (35 percent), corporate citizenship and responsibility (20 percent), culture of ethics (20 percent), governance (15 percent), and leadership, innovation and reputation (10 percent).
Environmental Commitment

Thanks to the implementation of the Environmental Management System (E.M.S.), certified according to standard ISO14001, the company manages and monitors constantly its own environmental impact through the Initial Environmental Analysis. This is a process designed to investigate the interaction between the site’s productive activity and the surrounding environment.

ENVIRONMENTAL MANAGEMENT TOOLS AND CERTIFICATIONS

• Environmental Policy and Environmental Declaration: Tools useful to define the company strategy and all the activities carried out by illycaffè in the field of environmental sustainability, including training programs for the Organization’s staff, to ensure that every employee is in a position to understand these issues and to contribute actively to the achievement of the objectives set in this area.
• Environmental Management System: Continuous monitoring and storage of data on consumption and waste management at the company’s three sites.
• Life Cycle Assessment: illycaffè uses the latest versions of SIMAPRO 8.3, software used to calculate the environmental impact of its productive processes. The company uses the LCA as a tool to support all its decisions related to product and process innovation.
• Single Environmental Authorization (SEA): Obtained in 2015, the SEA replaces the various authorizations in the environmental area (emissions into the air, waste water discharges, acoustic impact, etc.) that were applied for and obtained separately. It is a legal requirement that acts as an administrative simplification tool intended both to protect the environment and to cut the red tape for operators.
• ISO 50001 “Energy Management Systems” Certification: The company obtained the certification in 2015 thanks to a systemic approach to energy efficiency improvement.

12 The quantitative environmental data shown in this section refer to illycaffè S.p.A. as the impacts of the other group companies can be considered less significant. In fact, besides the nature of the activities performed by the other companies (mainly administrative):
   • The main environmental impacts are related to productive activities, all performed in Trieste, in the parent company’s plants;
   • Over 65% of the Group employees works for the parent company.
   The company features environmental examples and good practices adopted by the other companies so as to report in the best possible way environmental projects and solutions.
Sites and Productive Processes

TRIESTE, VIA FLAVIA: Coffee roasting plant, which generates most direct environmental impacts;

TRIESTE, VIA MALASPINA: Distripark, where storage and shipping activities are conducted.

The two Trieste sites have environmental certification and are not protected or high-biodiversity areas. The energy sources utilized for the production process are methane, electricity and diesel fuel (company cars).

With reference to the management of the company’s car fleet, in 2017 280,135 liter of fuel (gasoline and diesel) were used, for a total of 3,501,688 km. travelled (considering an average diesel consumption of 8 liters/100 km.). Emissions were estimated to amount to the equivalent of 546 tCO2.

Conversion gas to diesel – diesel power
Source: GHG: 0.156 kgCO2/Km

In addition, the company adopted specific solutions to reduce energy consumption and make waste management more efficient. There is another site, in via Caboto 19, where certain activities ancillary to production are performed (design and quality control of coffee machines).

Through the Surveillance and Measurement Plan, supported by the scheduled obligations in the environmental area, the company performs preventive control and monitoring of its environmental impacts, so as to minimize the potential risks for the environment and the surrounding communities of its plant. Any deviations from the plans are monitored and managed promptly through the preparation of non-compliance reports and, when appropriate, with corrective actions taken on the causes of the problems identified13.

13 In 2017 the company was not fined or sanctioned for failing to comply with environmental laws and regulations. In the same vein, no complaints were received regarding environmental impacts.
Environmental protection expenses incurred by the parent company in 2017 amounted to €671.3 thousand (up 18.7% on 2016):

<table>
<thead>
<tr>
<th>illycaffè expenses</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste treatment and disposal, including electronic waste</td>
<td>489.4 thousand euros</td>
<td>538.5 thousand euros</td>
<td>496.6 thousand euros</td>
</tr>
<tr>
<td>External environmental management services</td>
<td>9 thousand euros</td>
<td>9 thousand euros</td>
<td>10 thousand euros</td>
</tr>
<tr>
<td>External certification of environmental management systems</td>
<td>7.3 thousand euros</td>
<td>5.8 thousand euros</td>
<td>1.5 thousand euros</td>
</tr>
<tr>
<td>Research and development</td>
<td>30 thousand euros</td>
<td>/</td>
<td>141.4 thousand euros</td>
</tr>
<tr>
<td>Other</td>
<td>23.9 thousand euros</td>
<td>11.9 thousand euros</td>
<td>21.8 thousand euros</td>
</tr>
</tbody>
</table>

illycaffè’s affiliates sell products and perform mainly low-environmental-impact marketing and administrative activities. However, the parent company undertakes a large number of initiatives to manage properly these companies’ energy, waste and material impacts. Every country manages independently the planning and implementation of these initiatives, so as to find the best solutions at the local level, from a regulatory, EU and market standpoint.
**Air Emissions**

The company is committed to protecting the environment and to limit the use of natural resources thanks to its environmental responsibility policy, which aims to promote the rational use of energy and the use of renewable energy sources.

The emissions generated by production processes are mainly related to the storage, selection and roasting of green coffee. Coffee roasting emits into the air dusts, NOx (nitrogen oxides), TOC (total organic carbon) and volatile organic substances. Directive 2010/75/EU on integrated pollution prevention and control introduced new control standards for NOx and TOC emissions from roaster chimneys. Accordingly, illycaffè monitors constantly these types of emission and, on an annual basis, reports its findings to the Province of Trieste, ARPA FVG, ASS n1 Triestina and the Municipality of Trieste. In the Friuli Venezia Giulia region the maximum emission limits authorized by the regional authorities are 350 mg/Nm³ for NOx and 50 mg/Nm³ for TOC. The table below shows that the 2017 readings for illycaffè’s sites were well below these limits set by law.

---

**EMISSIONS RELATED TO PRODUCTION SITES IN ITALY**

**PLANTS VIA FLAVIA-MALASPINA-CABOTO, TRIESTE (TON CO₂eq)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Natural gas (Scope 1): direct emissions (deriving from combustion in plants and fixed equipment) of significant greenhouse gases (ton)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>2,825</td>
</tr>
<tr>
<td>2015</td>
<td>3,131</td>
</tr>
<tr>
<td>2016</td>
<td>3,335</td>
</tr>
<tr>
<td>2017</td>
<td>3,492</td>
</tr>
</tbody>
</table>

**Electric energy (scope 2)**

(100% declared from renewable sources)

<table>
<thead>
<tr>
<th>Year</th>
<th>CO₂ intensity index (=TON CO₂eq/tons coffee roasted for the year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>0.16</td>
</tr>
<tr>
<td>2015</td>
<td>0.17</td>
</tr>
<tr>
<td>2016</td>
<td>0.18</td>
</tr>
<tr>
<td>2017</td>
<td>0.18</td>
</tr>
</tbody>
</table>

*CO₂ emission inventory coefficient. Source ISPRA (good until December 2016) tCO₂ /Un = 1.955 – oxidation coefficient = 1.
To make the management of the roasting process sustainable, a roaster heat recovery system has been active since 2012 to warm up the entire production area and the offices (cooling in the summer is obtained thanks to “absorption” machines, capable of generating a cooling cycle by using the hygroscopic processes of certain salts). In addition, thanks to the use of a catalyst, pollutants are eliminated by the high temperature and the oxidant action, thereby reducing the emissions of coffee dusts into the air. Any dust derived from the transportation of coffee is managed effectively thanks to the technologies applied to the vehicles that carry coffee, which are all equipped with exhaust systems and filters for the sedimentation of dusts. The warehouse and loading silos are equipped with the same technology.

Of our energy sources, 65% is renewable (electric energy) while the remaining 35% is fossil.

<table>
<thead>
<tr>
<th>Energy source</th>
<th>T.O.E. 2017</th>
<th>Origin</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric energy</td>
<td>2,684</td>
<td>Renewable source</td>
<td>65%</td>
</tr>
<tr>
<td>Methane</td>
<td>1,440</td>
<td>Fossil source</td>
<td>35%</td>
</tr>
<tr>
<td>Total TOE</td>
<td>4,124</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
OUR GREEN RESPECTS THE ENVIRONMENT.
Raw Materials

illycaffè’s main raw material is green coffee. Every year the company purchases hundreds of thousands of Arabica coffee bags from producers in Latin America, Africa and South-East Asia. The company acknowledges that the production of this raw material accounts for a considerable portion of its indirect environmental impact and monitors every phase of the procurement process, from the heart of the plantations to shipping to the roasting plant.

In addition to green coffee, the company regards as significant the impact generated by all the plastic and metal materials used in its packaging and that determined by the use of nitrogen. illycaffè’s use of all the other raw materials has a lower environmental impact. In particular, these materials include: oils, solvents, inks, chemical products, wood, jute bags, carbon dioxide, paper and cardboard (other than packing material). The paper, cardboard, jute bags and wood used in packing are mainly recycled materials. The materials used that come into direct contact with coffee are necessarily virgin materials. Compared to 2016, the item ‘Miscellaneous’ fell in percentage terms due to the diminished purchases of such consumables as solvents and chemical products.

<table>
<thead>
<tr>
<th>Type</th>
<th>As a % of total</th>
<th>Coming from renewable source*</th>
<th>% change 2017-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing paper/ cardboard</td>
<td>7.8</td>
<td>YES</td>
<td>+2.6</td>
</tr>
<tr>
<td>Metals</td>
<td>14</td>
<td>NO</td>
<td>-5.4</td>
</tr>
<tr>
<td>Green coffee</td>
<td>63.5</td>
<td>NO</td>
<td>+0.63</td>
</tr>
<tr>
<td>Plastics</td>
<td>6.7</td>
<td>NO</td>
<td>+3.08</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>6.9</td>
<td>NO</td>
<td>+25.5</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1.1</td>
<td>NO</td>
<td>-35.3</td>
</tr>
</tbody>
</table>

* Non-renewable materials = Resources that do not renew in short time periods, such as minerals, metals, oil, gas, or coal
** Recycled input materials = Materials that replace virgin materials that are purchased or obtained from internal or external sources, and that are not by-products and non-product outputs (NPO) produced by the organization.
Energy Management

illycaffè manages energy resources responsibly, with a view to constant improvement. The company introduced voluntarily in Italy the Energy Manager, a professional figure tasked with coordinating and monitoring the energy system as well as managing effectively the types of energy available, checking consumption levels and taking actions leading to an increasingly efficient energy performance. In production use is mainly of electric energy and methane while for company vehicles use is made of gasoline and diesel.

Regarding electric energy, given the same level of output - i.e. roasted coffee, which was up 5.4% on the previous year - electricity consumption dropped 3.03%. In 2017, Trieste’s three sites saw total electricity consumption of 42,303,600 MJ, with the energy coming from a guaranteed (hydroelectric) renewable source.

The roasting process accounts for 89% of the total natural gas (methane) used while heating and the production of hot water, on one side, and meal preparation in the company cafeteria, on the other, represent 10% and 1%, respectively. In 2017 total energy requirements amounted to 69,687,932 MJ and were associated with the sites of via Flavia and via Caboto while the logistic site in via Malaspina did not use any methane. The reduced consumption of methane for heating and running water production purposes is due to the days on which coffee roasting is halted, on weekends and holidays, as the equipment to recover the heat released from the chimneys of the roasting plant is enough to meet the requirements of the sites for all the withdrawal points located in Trieste. Methane is directly related to the roasting process and the 4.7% increase in use in 2017 was lower than the increase in the production of roasted coffee. The objective to reduce consumption by 20% by 2020 is still a priority.

The year under review saw the continuation of the initiatives designed to improve the efficiency and use of the available types of energy (building automation, optimization of heat recovery systems, heat driven absorption chiller, building enclosures, high-albedo coatings, etc.).

With reference to the management of the car fleet, in 2017 280,135 liters of fuels (gasoline and diesel) were consumed, for a total of 3,501,688 km travelled (considering an average mileage per diesel car of 8 liters/100 km.). The estimated CO2 emissions totaled 546 tons. (Conversion factor 0,156 KgCO2/km. Source GHG).

<table>
<thead>
<tr>
<th>ENERGY CONSUMPTION WITHIN THE ORGANIZATION - MAIN ENERGY FACTORS</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane consumption (non-renewable)</td>
<td>63,511,440</td>
<td>66,549,031</td>
<td>69,687,932</td>
</tr>
<tr>
<td>Electricity consumption MJ (100% proven from renewable sources)</td>
<td>42,109,200</td>
<td>43,628,760</td>
<td>42,303,600</td>
</tr>
<tr>
<td>Total energy consumption (MJ)</td>
<td>105,620,640</td>
<td>110,177,791</td>
<td>111,991,532</td>
</tr>
<tr>
<td>Energy consumption indicator per ton of roasted coffee</td>
<td>5.69</td>
<td>5.82</td>
<td>5.61</td>
</tr>
</tbody>
</table>

Conversion factor 1kWh=0.0036GJ; 1000 mc Methane = 39.01 GJ - Source Global Reporting Initiative. 3.1.

The company does not sell self-produced energy to third parties.
Energy Efficiency and Renewable Energy Initiatives

The company is committed to researching and implementing efficient energy solutions. In the wake of the new rules issued by the Italian Electric Energy and Gas Authority, the fall of 2016 saw the start of the installation of LED lighting systems. At December 31, 2017, installation was completed for building M (where the offices are) in its entirety and for most of the plant. In addition, consumption savings were achieved due to cooling and conditioning following the efficiency improvement of the enclosures for productive/manufacturing and service uses.

Regarding the production of renewable energy, attention is called to the efficiency of the 1 MW photovoltaic plant which extends over 11,000 square meters on the roof of the Distripark logistic site in via Malaspina, Trieste.illycaffè does not own the plant but leased out parts of the area covered to a third party to contribute to the development of renewable energies. The plant, which was connected to the grid on July 1, 2011, produced a total of 851,153 kWh in 2017.15

15 Reading sent to Energy Service Manager.
Starting in 2013, illycaffè has improved its water management consumption related to every process group, by activating meters for every single site, so that each might manage directly its water requirements.

Total water withdrawn from the sites in via Flavia, via Malaspina and via Caboto amounted to 48,909 cubic meters (up 35.8% on 2016, due to a breakage) while the quantity of wastewater discharged in the sewer in 2017, as estimated on the basis of the quantity withdrawn, was equal to 32,215 cubic meters. The water used in the roasting plant was taken entirely from the aqueduct of the city of Trieste and is used in part for coffee organoleptic tests and in part to test the 3kg, 250g and serving cans.

The remaining part is used for irrigation, fire-fighting, drinking and washing purposes.
Waste Management

The company is committed to responsible and sustainable management of waste along its entire lifecycle, to reduce to a minimum its impact on people’s health and on the environment. To that end, waste management at the roasting plant and the logistic site in Trieste is overseen in all its administrative, production and post-production phases, including those related to transportation and disposal.

illycaffé implemented various procedures to improve waste management, such as the identification of different types of waste, the use of specific sorted-waste collection containers in plants and offices and personnel training on the subject.

In 2017, the company recovered 99.5% of the waste produced. Such waste amounted to 2,004,368 kg., reflecting a decrease from the previous year as, despite the increase of roasted coffee, there was a decline in the quantity of tinplate (unit disbanded) and the quantity of iron/steel to be demolished (in 2016 machineries were scrapped and warehouses were emptied).

Of the waste generated by illycaffé, 91% is considered special, that is coming from production activities and merchandise returns, and 0.18% of the total is considered hazardous. The latter is disposed of in accordance with the law within the country.

In 2017 urban waste accounted for 9% of total waste produced and 9.9% of special waste. illycaffé was able to benefit from efficient sorting, as it sold such waste as paper/paperboard, plastic, metal scraps, copper and tinplate wastage for a total of €115,241.00.16

Waste from Production

The prototype lab created a system to separate capsules that are part of waste from production from coffee and to recover them after percolation. This activity not only reduced the number of capsules to be disposed of but also to reroute the various components in a manner consistent with their end-of-life treatment, with plastic sent to the production of propylene honeycomb slabs, layer pads and other industrial packaging products while coffee is used for compost.

illycaffé has been able to reduce waste from production thanks to the improvements made in the last two years to plant and equipment and to production processes.
3.8

Product Disposal and Recyclable Packs

illycaffè is increasingly sensitive to circular economy – which has become a key theme for the company and its stakeholders – as it is planning and implementing innovative solutions to make the disposal and disassembly of products as efficient as possible in environmental and social terms, through an approach typical of such concept:

- **REDUCE**: In the design phase consideration is given to packaging and packing materials that are lighter, low consumption, possibly recycled or recyclable and environment-friendly throughout their lifecycle.

- **REUSE**: For secondary packaging material, the company tends to purchase recycled materials that, on average, represent 80% of the paper and paperboard used and 100% of pallets used.

- **RECYCLE**: Preference is given to recyclable packing materials, which are designed on the basis of, and made with, non-composite materials (metals or plastics).

In 2016 illycaffè performed a life-cycle assessment (LCA) of its entire product portfolio, from the production of raw materials, to the production process, to the use and disposal of all the product components. This assessment enhanced the company’s awareness of the main impacts of its activities and led to the implementation of improvement plans. Specifically, the company emphasized the focus on product durability and design, in light of a design-for-disassembly strategy.

In Trieste the company continued to test its project to collect exhaust capsules. Reverse vending machines have been placed in retail establishments, where customers can throw the exhaust capsules to be collected and disposed of. Moreover, in Italy illycaffè has made available to consumers an Eco Easy Capsules Opener, a home appliance to dispose of correctly the Iperspresso capsules, once they are used. ECO allows the capsule to be opened in a few steps and emptied of coffee, so as to dispose of the plastic and coffee separately.

Collaboration is still under way with the Zero Waste Research Center of the City of Capannori, in the area of innovation, coffee capsules, recycling, recovery and reuse, as well as with Universities, research centers, trade associations and forums with other coffee companies to identify viable alternatives, such as the use of biodegradable or environment-friendly products.

---

For a more in-depth discussion on innovation, reference is made to section 4.2 (Innovation & Research).
ENVIRONMENTAL VALUE

Sustainable value report 2017

TRACKING THE ROAD WITHOUT SIGN THE EARTH.
Green Transportation and Logistics

Logistics and transportation management reflects illycaffé’s commitment and intent to implement innovative solutions to reduce emissions and to make distribution efficient.

The transportation and logistics related to incoming green coffee and other raw materials and the distribution of finished products to customers are monitored closely, including through the LCA methodology, to assess the relevant impacts and to study improvement strategies. Transportation related to product distribution is still closely related to fossil fuels and the company is committed to identifying innovative and sustainable processes and solutions.

On the distribution front, from time to time, illycaffé sends its qualified suppliers questionnaires on specific environmental issues, such as resource consumption, emissions, waste production, liquid effluents, soil contamination and noise pollution.

The operator responsible for shipping most of illycaffé’s products in Italy obtained ISO 14001 certification in relation to the environment, for the effort shown in monitoring and reducing environmental impacts.

**INBOUND SHIPMENTS**

**Origin: Italy**

In Italy transportation activities take place nearly entirely by truck. Incoming goods are purchased on a DAP (delivery at place) basis, which means that illycaffé has no control over the couriers used. The only exception are capsule components, which are purchased EXW (ex works). To optimize inventory management activities, the company started the Milk Run project, whereby it coordinates the shipping of all the capsule components from all its suppliers to gain storage volume. To date the company has increased its warehouse space available by 250 cubic meters.

**Origin: Abroad**

Green coffee accounts for the bulk of inbound shipments. All incoming materials are transported by ship, the means of transportation with the lowest impact. The selection of the shipping companies, on the basis of their qualitative service, has made it possible to identify substantial service providers and large shippers with sustainability policies in place intended to lower the environmental impact. illycaffé is considering the potential of the big-bag packing system, to improve efficiency in the successive handling stages.

**OUTBOUND SHIPMENTS**

**Destination: Italy**

illycaffé is responsible for shipping its products to its customers. Shipments take place by truck, which is a cheaper and better means of transportation than trains. About 60% of shipments is managed by an important logistic operator that has adopted an Integrated Policy for Quality, Environment and Safety and a Policy for Ethical and Social Responsibility. In Italy there are intermediate warehouses, which make it possible to optimize distribution to retail establishments.
Destination: Abroad
All shipments to the other European countries take place by truck, with certain exceptions (see below), while all shipments to the rest of the world take place by sea, through 3 important international shipping companies. Of these, the two companies that account for 90% of shipments have clear and comprehensive sustainability policies. illycaffè has adopted certain intermodal transportation solutions for its shipments to Norway and Greece, with a combination of means of transportation, i.e. truck/rail/truck, with the potential to reduce the environmental impact. To encourage full contained shipments, it exports on a CIF (cost, insurance, freight) basis only if the buyer takes a full container load (FCL) or on a free carrier (FCA) basis if the buyer takes a full truck load (FTL). This applies to illycaffè’s affiliates (France, Germany, Netherlands, Spain, Austria, USA and Canada, Asia Pacific, Brazil) and distributors (Sweden, United Kingdom, Switzerland, Slovenia, Norway, Romania, Czech Republic, Denmark).
### Sustainable Agriculture and Biodiversity

ILlycaffé integrates environmental responsibility principles into its modus operandi and into the management of its raw materials, especially green coffee.

The company invests in the local areas and the communities that are part of it. In the production areas it provides training and advances best agronomic practices, to reduce the most significant impacts of farming and acting with full respect for biodiversity and the ecosystems. In addition, it has specific incentive and recognition programs in place for producers that promote quality and environmental sustainability, such as the Ernesto Illy International Coffee Award, the Premio Ernesto Illy de Qualidade do café para Espresso and the Clube illy do Café.

#### Water in the Plantations

The company provides producers guidance on the use of water, avoiding waste (e.g. by publishing and distributing specific water and coffee manuals), and on equipment that uses less than half liter of water for every liter of processed coffee (generally 5 to 10 liters are used).

Special attention is paid also to coffee wastewater. In fact, the water used to wash coffee needs to be treated before it is released into natural systems. ILlycaffé continues to recommend the online course on the treatment of coffee wastewater to increase the awareness of the communities concerned.

#### Integrated Farming: Nitrogen Fertilization and Use of Chemical Products

ILlycaffé advances integrated farming principles, limiting the use of active principles and fostering good agronomic practices, such as the use of vegetation cover for land, the reduction of soil erosion through contour farming, the reduction of land use to maintain soil fertility unaltered and the application of nutrients, including through organic and mineral fertilizers, accepted in organic farming. To this end, at the Brazilian venue of the University of Coffee training and awareness activities were carried out, including:

- Specific online courses
- Workshop on “Risk of Coffee Contamination from Residues of Phytosanitary Products. Proper Management of Such Products”
- Integrated Management of Pathogens and Harmful Insects in Coffee Plantations

In El Salvador training sessions were held for all the players active on the supply chain on risk prevention in the use of phytosanitary products, with the distribution of the manual on “Guidelines for a proper use and distribution of plant protection products”.

#### Biodiversity

Biodiversity is a central theme of the constant advancement of integrated farming techniques by ILlycaffé’s technicians during field visits. In addition to such consulting activities, the company undertakes broader actions to improve the information and knowledge of the theme as well as the natural ecosystems.

The Ernesto Illy Foundation continues to develop the reforestation project in Támara, Colombia, with native trees near freshwater springs. The objective of the project is to increase the volumetric flow rate of certain resurgences as a possible solution to the depletion of ground waters that, due to the deforestation determined by cattle ranching, caused a progressive reduction of the water flows. Reforestation involved also 60 small producers, in addition to the 80 that joined the project initially, with trees supplied by the Gobernación de Casanare. The initiative is intended also to improve water...
management practices in the coffee production process for 200 families as well as to train these families on environmental care, thanks also to two schools in the area where the project is taking place. Lastly, among the online courses organized in Brazil, one in particular addressed biodiversity, with the analysis of the changes introduced by the new Brazilian code on the conservation of the native forest and of the techniques to restore native plants, to explain how to adapt these concepts to coffee growing.

**COLLABORATION WITH CIRAD (MONTPELLIER, FRANCE) FOR CENTRAL AMERICA**

The collaboration project with CIRAD (Centre de coopération internationale en recherche agronomique pour le développement), an international research institute, aims to develop a preventive alert system for coffee rust (*Hemileia vastatrix*) in Central America, within the scope of PROCAGICA (Programa Centroamericano de Gestión Integral de la Roya del Café). The development plan is funded by the European Union and intends to address climate change and its environmental effects through the adoption and application of adaptation, mitigation and risk reduction solutions.